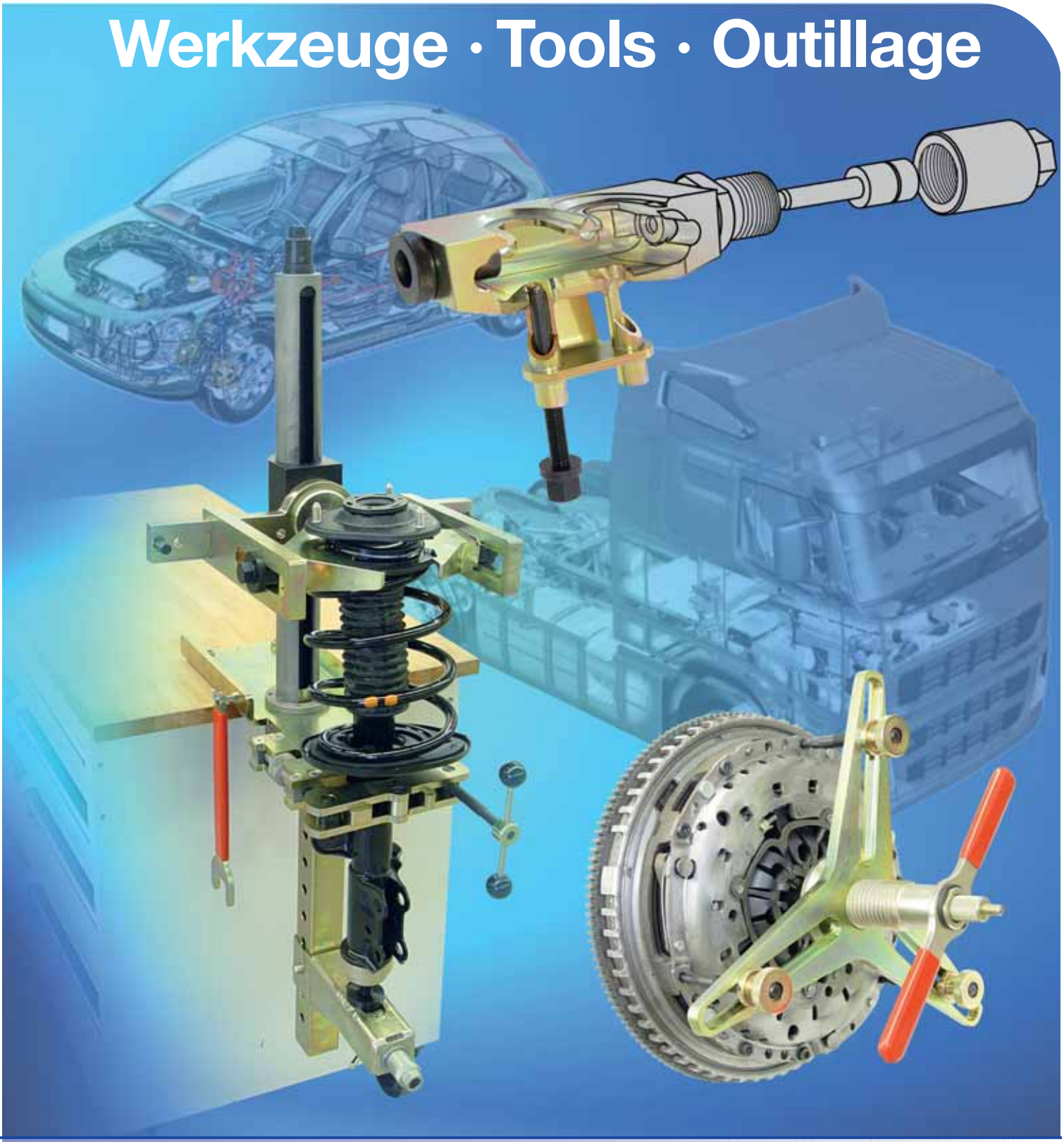
KLANN®

Werkzeuge · Tools · Outillage



Special Automotive Tools

Partner in the GEDORE Group

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KLANN®

Partner in the GEDORE Group

Insights
in the Company





Worldwide distribution with Head Office in Donaueschingen.

With more than 70 local and international Patents is KLANN one of the leading Special Tools Manufacturers in the world.

In the following countries KLANN has it's own branches: France, the United Kingdom and the USA.

By using new materials and due to more compact engineering of the cars an economical and correct repairing can't be done anymore without Special Tools.

That's why KLANN will also be in the future the competent partner for garages, grossists and the automotive industry.



Production site
High technology production in Donaueschingen.



Effective floor space
Approx. 7000 m².



Construction of jigs and fixtures
With Engineering and Production of Samples and Prototypes e.g. for the Automotive Industry, Suppliers and Garages.



Ouality control
With 100% Quality control of function measurements.



Demovan
For supporting the dealerships with several presentation possibilities on the spot and in the garages.
"Mobile exhibition".



Training room
For practical training directly on the car.



Experimental Garage
For quick reaction of needs resp. requirements of the market and for the steady enlargement of our Tool-Programme and -Systems.



Warehouse
98% of our products, which are listed in the catalogue, can be delivered immediately.



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2. Tools for the Steering System
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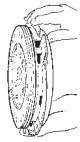
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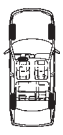
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Werkzeuge fürs Leben · *Outils pour la vie*

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febi bilstein Quality spare parts from the very beginning

febi has got it!

Always the matching spare part!

For changing Suspension strut and shock absorber



For repairing wheel bearings, wheel hubs and propeller shafts



For front axle bearing and rear axle bearing



For engine timing



febi has got it... KLANN, too.

All craftsmen know that they can only perform a good and cost-effective repair if they use the correct tools.

In this respect, febi and Klann perfectly complement one another. More thanl 7,000 wear parts for all populär vehicle types and the matching special tools for the Professional assembly!



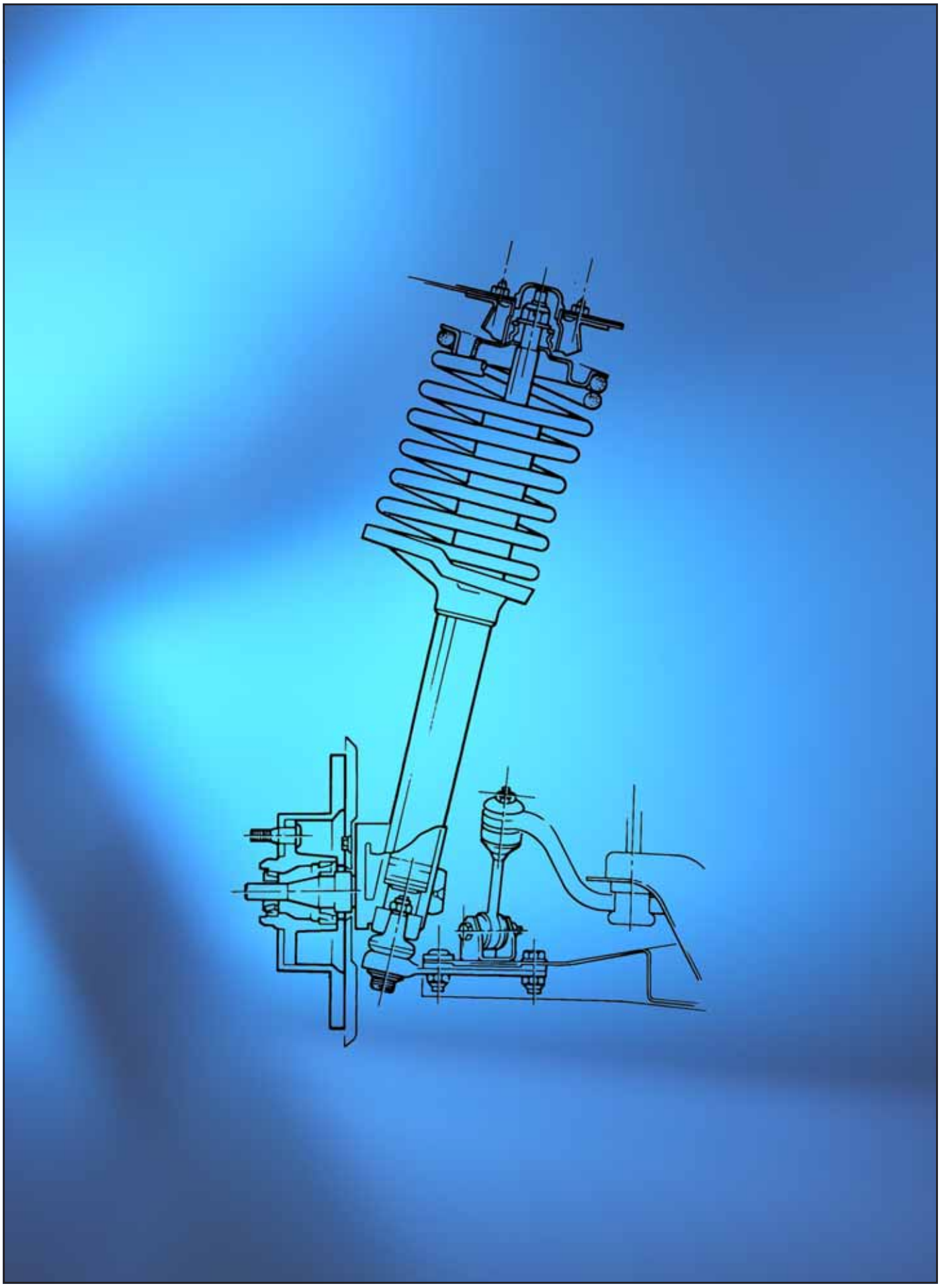


Find the febi parts at www.febi.com - or order the CD-ROM based on the TecDoc technology!

Safe assembly of the febi quality spare parts with KLANN tools

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The KLANN Spring Compressors !!!!!

The new Stationary Spring Compressor KL-5501

(see page 1-03 - 1-05)

➢ *Variably adjustable.*

➢ *No additional tool required.*

➢ *Universally suitable for springs and shock absorbers.*



Telescopic Spring Compressors KL-9002 / KL-9001

(see page 1-06 - 1-11)



➢ **Stable: Max. Load 27500 N**

➢ **Mobile: can be directly applied to vehicles or to workbenches.**

Spring Compressor KL-0015

(see page 1-12 - 1-17)



➢ **Compact: applied to vehicles.**

Universal Spring Compressors KL-0021 / KL-0025-1

(see page 1-18 - 1-21)

➢ ***Universal*: for wishbone suspensions and multi-arm axles.**



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The new Stationary KLANN Spring Compressor KL-5501 !!!!!

➤ Universal use for *all* MacPherson- and Semi-Struts!

E.g. with standard springs, right or left winded springs, excentrical springs or spring plates, conical springs, springs with small number of windings, high or different steepness of the coil winding.

As the spring is compressed with the upper spring plate in direction to the lower spring plate, neither are the shape nor the steepness of the coil windings of any interest.

➤ No further accessories needed!

Due to the special design of the jaws, the radial arms, respectively the swivelling bar, all the above mentioned Struts and Semi-Struts can be compressed without any additional accessories.

➤ No damage to the Strut tube!

The special strut vise can be adjusted, through a knurled nut, quick and easy up to the correct diameter of the strut tube. (The tensioning bars should be parallel to each other). The clamping jaws are equipped with protective inserts.

➤ One-Man-Operation!

The whole working operation can be done by one man only!
⇒ The Strut tube fixation unit is equipped with a quick locking and one-hand-operation device.

➤ Mobile due to the workshop trolley!

The Stationary Spring Compressor is equipped with a fixation plate that allows to fix the Spring Compressor on a workshop trolley or a workbench

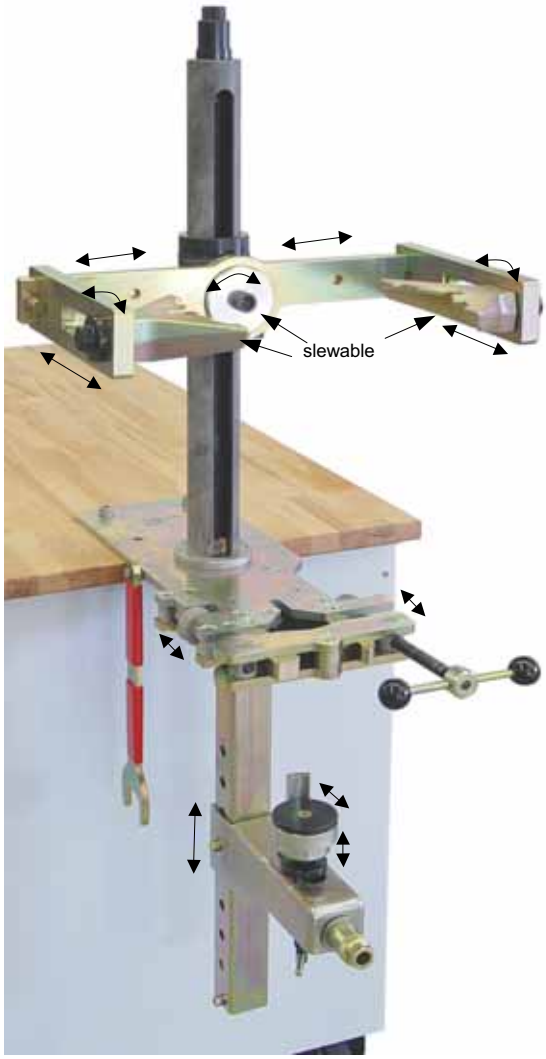
In combination with a workshop trolley it is possible to work beside the car.



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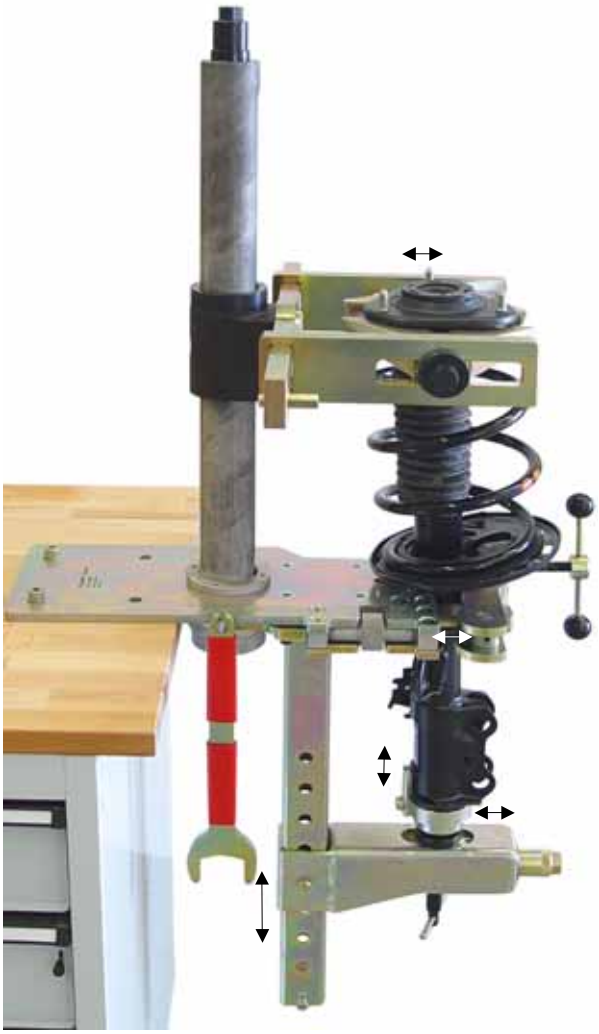
The new Stationary KLANN Spring Compressor KL-5501 !!!!!



- **Variable adjustability for all MacPherson- and Semi-Struts.**
- **Clean, safe and efficient way of working.**
- **Easy handling.**

Strut vise open.





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The new Stationary KLANN Spring Compressor KL-5501 !!!!!

Dismounting ⇒
Compressing the spring.

Easy handling due to shifting possibility of the jaws.
No slipping of the jaws due to self-locking system.

(German Utility Model)

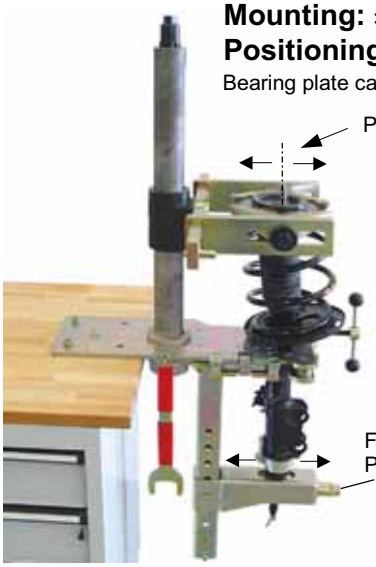


Dismounting: ⇒
Spring is compressed.

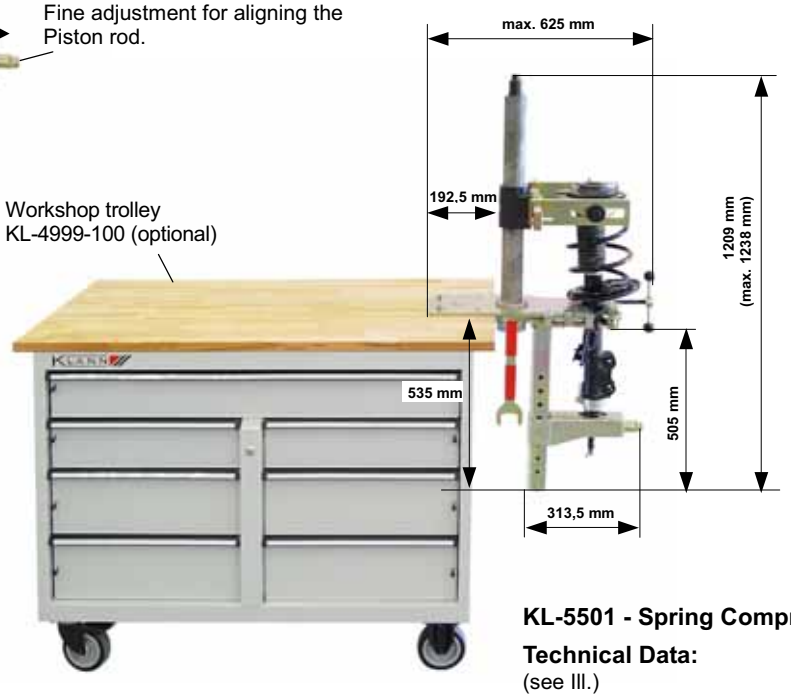
Very short way of compression needed.
Bolted connection is loosened, bearing plate can be dismounted.



Mounting: ⇒
Positioning the Piston rod.
Bearing plate can be mounted.



Exact alignment of the Piston rod whilst the spring is compressed.



Accessories:

KL-4999-100 - Workshop trolley
(without spring compressor)

Sturdy and mobile workstation. Drawers are provided with single-locking device and central closure. Solid copper beech board spray-glued, large mobile frame with robust sliding wheels with double brake.

Technical Data:

Weight:.....125 kg
Dimensions: .....B 1310 x H 925 x T 600 mm
Worktop: .....B 1200 x H 25 x T 600 mm
Drawers (1x).....B 1035 x H 180 mm
Drawers (2x).....B 490 x H 135 mm
Drawers (4x).....B 490 x H 180 mm
Castors with brakes (2x) Ø 125 mm
Fixed roller (2x) Ø 125 mm

KL-5501 - Spring Compressor

Technical Data:
(see Ill.)
Weight without trolley **: 46 kg**

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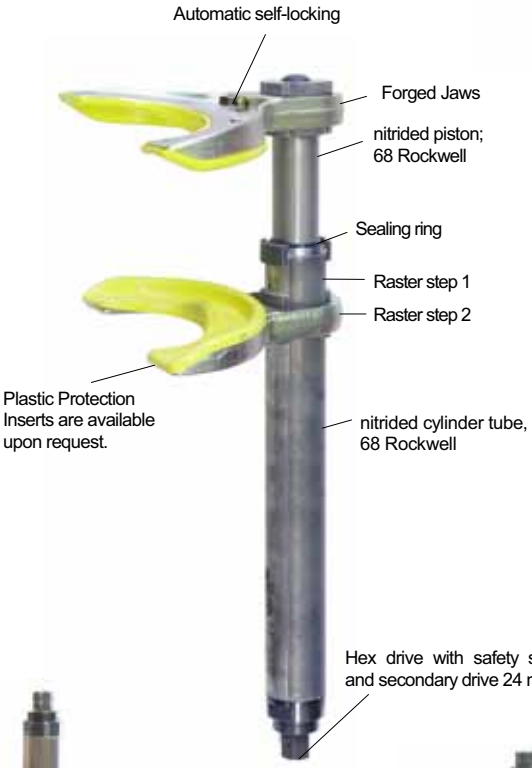
Our Telescopic Spring Compressors KL-9002 and KL-9001 in use.

⇒ Conic spring compression and decompression



⇒ Compression and removal of springs inside the vehicle.





⇒ Spring and upper spring cup compression.



⇒ Spring and upper spring cup compression.



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THE RIGHT DECISION

Spring Compressors with new Technology for the Future.

KL-9002 / KL-9001 (Patentiert e.g. US-Patent 5 954 314)

Telescopic Safety Spring Compressors



- ☑ ***Universal suitable for*** MacPherson-Struts or Semi-Struts
- ☑ Drive rated for ***1/2"-Impact Guns***
- ☑ **Grid system** to adjust jaw opening width (Pat.)
- ☑ Patented ***Bayonet Locking System*** for Jaw mountings with automatic self-looking
- ☑ ***Exchangeable Plastic protective Inserts*** to eleminate the risk of spring-breakages resulting from corrosion (Pat.)
- ☑ Fully approved by BGS after ***Safety Tests***
- ☑ maximum Load ***27 500 N***
- ☑ ***Automatic Spindle Freewheel***
- ☑ Sealed Spindle system ***"Maintenance-Free"*** (no particles can enter)
- ☑ No Key bed in the Pistons
  - ➢ ***High Load Capacity***
- ☑ Cylinder and Pistons nitrided (68 Rockwell) resulting in ***extreme resistance to wear***

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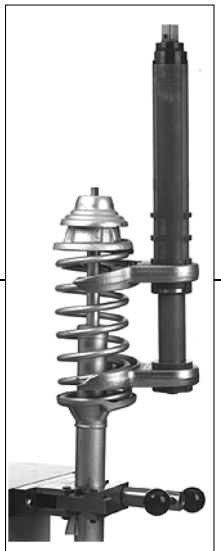
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KL-9002 (Pat.) with stroke 305 mm



KL-9001 (Pat.) with stroke 245 mm





Approved for ½" – impact guns

The KL-9002 universal coil spring compressor is recommended to workshops because this tool has an extended travel (stroke) of 305 mm, a maximum distance between jaws of 377 mm and a minimum distance between jaws of 40 mm. In order to repair all types of Strut suspensions, these are the characteristics required by the Spring Compressor.

KL-9002 Telescopic Spring Compressor

Part No.	Description
KL-9002	**Telescopic Spring Compressor (with extended stroke)**
consists of:	
KL-9002-100	Compressor Cylinder
KL-9001-11	Jaws (Pair) Size 1
KL-9001-12	Jaws (Pair) Size 2

For Technical Data see page 1-09.

KL-9002 SP Telescopic Spring Compressor
As **KL-9002**, but with Jaws including Protective Inserts.

KL-9001 Telescopic Spring Compressor

Part No.	Description
KL-9001	**Telescopic Spring Compressor**
consists of:	
KL-9001-100	Compressor Cylinder
KL-9001-11	Jaws (Pair) Size 1
KL-9001-12	Jaws (Pair) Size 2

For Technical Data see page 1-09.

KL-9001 SP Telescopic Spring Compressor
As **KL-9001**, but with Jaws including Protective Inserts.

KL-9002 and KL-9001 Telescopic Spring Compressor

(Patented, e.g. US-Patent 5 954 314)

Suitable for vehicles with MacPherson Struts and Semi-Struts, in particular for 4x4 vehicles, Transporters and Vans such as Citroën Jumper; Fiat Ducato; Mercedes Vito, V-Class, M-Class, W210 4Matic; Peugeot Boxer, Break; Renault Master etc.

⇒ If required, additional jaws can be used (see pages 1-10 1-11).

Special jaws allow coil springs to be removed and replaced in wishbone suspensions provided access permits.

Max. Load 27 500 N *
For Spring-Ø of 70-210 mm

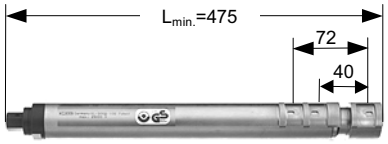
* at the official 4-times Safety-Factor, the maximum safe load of both KL-9002 and KL-9001 is 27,500 N !!

The only Telescopic Spring Compressor on the market,

- which due to a **Raster mounting system** offers an adjustable range of jaw openings, from a minimum of **40 mm** (KL-9002 / KL-9001) to a maximum of **377 mm** (KL-9002) or **349 mm** (KL-90021). This is important when compressing very short springs (2-3 coils) and also very long springs which must be fully de-compressed to be replaced. (eg. Audi, BMW, Fiat, Ford, Lancia, Mazda, Mercedes, Renault etc.)
- which offers a patented **Bayonet Interlock System with automatic self-locking** to attach the forged jaws (no tools, bolts or locking rings required).
- whose spindle drive remains closed in case the locking pin breaks. Due to a secondary drive the spring can be decompressed and removed to install a new locking pin.
- which offers **automatic free-wheel** if the spindle reaches the end of operating travel during de-compression – so eliminating the risk of damage to the spring-compressor.
- which offers **automatic free-wheel** if the spindle reaches the end of operating travel during de-compression – so eliminating the risk of damage to the spring-compressor.
- which is suitable for all MacPherson Struts, Semi-Struts and can also be used on many wishbone suspensions as a result of the **wide assortment of jaws** available.

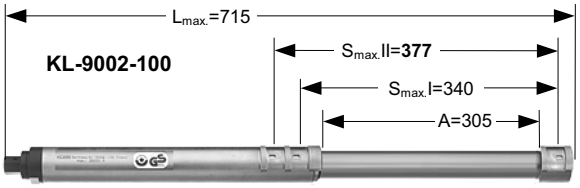
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KL-9002-100
Dimensions of minimum travel in Rasters 1 & 2

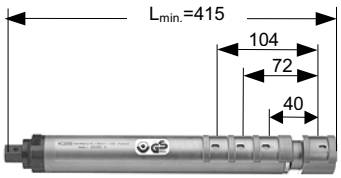


KL-9002-100
Cylinder

Dimensions of maximum travel in Rasters 1 & 2

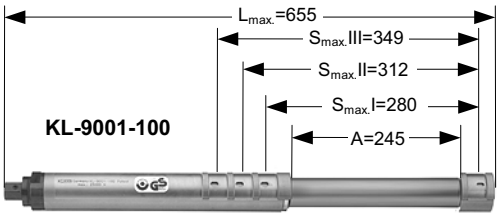


KL-9001-100
Dimensions of maximum travel in Rasters 1, 2 & 3



KL-9001-100
Cylinder

Dimensions of maximum travel in Rasters 1, 2 & 3



KL-9001 and KL-9002 Technical Data

Cylinder		KL-9001-100	KL-9002-100
L min.	Overall length min.	415 mm	475 mm
L max.	Overall length max.	655 mm	715 mm
A	Working Travel (stroke)	**245 mm**	**305 mm**
SPF	Cylinder free wheel at	675 mm	735 mm
Smin.I	Jaw seperation min. (I) (distance between jaws)	**40 mm**	**40 mm**
Smin.II	Jaw seperation min. (II) (distance between jaws)	72 mm	72 mm
Smin.III	Jaw seperation min. (III) (distance between jaws)	104 mm	-
Smax.I	Jaw seperation max. (I) (distance between jaws)	280 mm	340 mm
Smax.II	Jaw seperation max. (II) (distance between jaws)	312 mm	**377 mm**
Smax.III	Jaw seperation max. (III) (distance between jaws)	**349 mm**	-
	Working load max.	25 000 N	25 000 N
	Working load max. (at 4-times safety factor)	27 500 N	27 500 N
	Breaking load	110 000 N	110 000 N
	spindle drive	hex 24 mm	hex 24 mm
	spindle drive torque max. with 1/2"-hand ratchet	180 Nm	180 Nm
	Cylinder weight	6,0 kg	6,9 kg
	Cylinder weight with Jaws size. 1 and 2	12,5 kg	13,4 kg

Note:

- Maximum load values refer to the clamping cylinder together with the pair of jaws KL-9001-11.
- Operating the spindle with mechanical tools ensure that the torque limit of 180 Nm is not exceeded.

Example:

To compress a spring which is coil bound at 15,000 N (e.g. Mercedes W126) a torque of only approx. 58 Nm is required!

Examples of coil-bound forces:

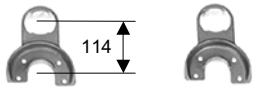
VW Polo AO3 ....approx. 6 000 N
VW Passat B5 ...approx. 8 000 N
Mercedes Vito .approx. 14 200 N
Peugeot Boxer approx. 15 000 N
MB M Class .approx. 18 000 N
VW Golf A4 ..... approx. 7 000 N
Audi A4 6 cyl. ..... approx. 9 000 N
Chrysler Voyager .approx. 14 000 N
Fiat Ducato .....approx. 15 000 N
BMW X5 .....approx. 18 000 N

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Pairs of Jaws

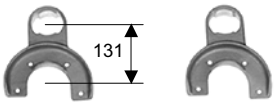
size 0



KL-9001-10
Pair of Jaws
without Protective Inserts
KL-9001-10 SP
Pair of Jaws with Protective Inserts

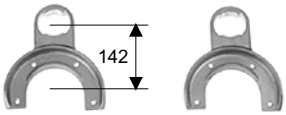
Pairs of Jaws

size 1



KL-9001-11
Pair of Jaws
without Protective Inserts
KL-9001-11 SP
Pair of Jaws with Protective Inserts

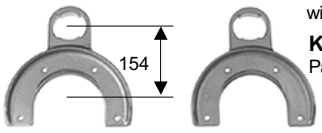
size 2



KL-9001-12
Pair of Jaws
without Protective Inserts
KL-9001-12 SP
Pair of Jaws with Protective Inserts

Pairs of Jaws

size 3



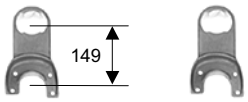
KL-9001-13
Pair of Jaws
without Protective Inserts
KL-9001-13 SP
Pair of Jaws with Protective Inserts

size 4



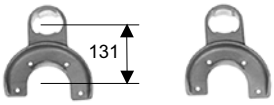
KL-9001-14
Pair of Jaws
without Protective Inserts

size 5



KL-9001-15
Pair of Jaws
without Protective Inserts

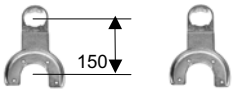
size 1 B



KL-9001-33
Pair of Jaws
without Protective Inserts
KL-9001-33 SP
Pair of Jaws with Protective Inserts

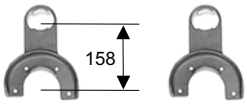
Pairs of Jaws with extended mountings to accommodate conical springs and inaccessible springs.

size 0



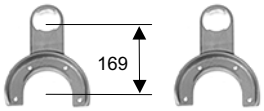
KL-9001-16
Pair of Jaws
without Protective Inserts
KL-9001-16 SP
Pair of Jaws with Protective Inserts

size 1



KL-9001-17
Pair of Jaws
without Protective Inserts
KL-9001-17 SP
Pair of Jaws with Protective Inserts

size 2



KL-9001-18
Pair of Jaws
without Protective Inserts
KL-9001-18 SP
Pair of Jaws with Protective Inserts

size 1



KL-9001-32 SP
Pair of Jaws with Protective Inserts
(German Utility Model)

KL-9001-33 SP

Porsche, VW



Pairs of Jaws with a closed attachment ring (Pat.)

Special Pair of Jaws

Part No.	For spring Ø	Weight	For Vehicles
KL-9001-10 (size 0)	70-125 mm *Accessory*	Pair 2.5 kg	Audi, Chrysler, Daewoo, Daihatsu, Fiat, Ford, Honda, Kia, Lada, Lancia, Mazda, Mercedes, Mitsubishi, Nissan, Opel/Vauxhall, Porsche, Rover, Saab, Seat, Škoda, Subaru, Suzuki, Toyota, Volvo, VW etc.

Standard Pairs of Jaws

Part No.	For spring Ø	Weight	For Vehicles
KL-9001-11 (size 1)	100-163 mm *Standard*	Pair 3.1 kg	Alfa Romeo, Audi, BMW, Chrysler, Citroën, Daewoo, Daihatsu, Fiat, Ford, Honda, Hyundai, Kia, Lada, Lancia, Mazda, Mercedes, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Porsche, Renault, Rover, Saab, Seat, Škoda, Ssang Yong, Subaru, Suzuki, Toyota, Volvo, VW etc.
KL-9001-12 (size 2)	135-175 mm *Standard*	Pair 3.3 kg	Alfa Romeo, BMW, Chrysler, Citroën, Fiat, Ford, Honda, Hyundai, Lancia, Mazda, Mercedes, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Renault, Rover, Saab, Seat, Subaru, Suzuki, Toyota, Volvo, VW etc.

Special Pairs of Jaws

Part No.	For spring Ø	Weight	Applications
KL-9001-13 (size 3)	165-210 mm *Accessory*	Pair 4,3 kg	Alfa Romeo, Audi, BMW, Chrysler, Citroën, Fiat, Ford, Kia, Lancia, Mazda, Mitsubishi, Nissan, Peugeot, Renault, Rover, Subaru, Toyota, Volvo etc.
KL-9001-14 (size 4)	*Accessory*	Pair 3,0 kg	Citroën C 15 Rear axle, Peugeot 305 Break Rear axle
KL-9001-15 (size 5)	70-116 mm *Accessory*	Pair 3,0 kg	Mercedes W210 4Matic, Alfa Romeo, Chrysler, Nissan, VW Lupo rear axle, etc.
KL-9001-33 (size 1 B)	100-163 mm *Accessory*	Pair 3,2 kg	Porsche Cayenne, VW Touareg

Pairs of Jaws with extended mountings

Required for conical and inaccessible springs.

Part No.	For spring Ø	Weight	Applications
KL-9001-16 (size 0)	70-125 mm *Accessory*	Pair 3,0 kg	VW e.g. Golf V rear axle, Volvo
KL-9001-17 (size 1)	100-163 mm *Accessory*	Pair 3,7 kg	Nissan Pathfinder, Seat Arosa, VW Lupo, Mercedes etc.
KL-9001-18 (size 2)	135-175 mm *Accessory*	Pair 3,7 kg	Audi, BMW, Honda, Renault Toyota, Nissan Mercedes W203, Mitsubishi, Peugeot etc.
KL-9001-32SP (size 1)	*Accessory*	Pair 3,7 kg	Audi A8 (armoured) rear axle

KL-9001-33 SP Pair of Jaws Size 1B with Protective Inserts

Suitable for Porsche Cyenne, VW Touareg

Removal and replacement of front springs.

Part No.	Description	For spring Ø	Weight	Applications
KL-9001-33	Pair of Jaws Size 1B	100-163 mm	3,2 kg	Porsche Cayenne, VW Touareg
KL-9001-25	Pair of protective inserts		0,2 kg	

⚠ The 4 small holes in the jaws serve to locate the protective inserts.

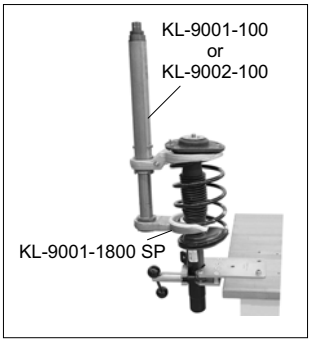
Note:
Vehicle Application List see page 1-24 and 1-25

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KL-9001-1920

Peugeot 206





KL-9001-91

BMW


KL-9001-1900


KL-9001-1310


KL-9001-1910


KL-9001-2301

KL-9001-92

Mercedes


KL-9001-3100


KL-9001-1800


KL-9001-3110


KL-9001-2201

Protective Inserts (Pat.)


KL-9001-20
size 0


KL-9001-21
size 1


KL-9001-22
size 2


KL-9001-23
size 3


KL-9001-24
size 1


KL-9001-25
size 1

KL-9001-1920 Jaw size 6

Suitable for Peugeot 206.

If this jaw, which is a new development, is used with spring compressor **KL-9001-100** or **KL-9002-100** and jaw **KL-9001-1800 SP**, the front suspension strut spring can be removed in just a few minutes.

Note: Compress the spring together with the upper spring plate and increasing spring compressor until there is no pressure on the support bearing.

Part No.	For Spring-Ø	Weight	Suitable for:
KL-9001-1920 (size 6)	70-125 mm *Accessory*	1,9 kg	Peugeot 206 front axle

KL-9001-91 Jaw Set for BMW

Applications: BMW E46 (3 Series from '98), E39 (5 Series from '95)

Removal and replacement of front springs.

Part-No.	Description	Jaws-Ø	Weight	Applications
KL-9001-1900	Jaw ring	165 mm	2,8 kg	BMW E46 (3 Series) BMW E39 (5 Series)
KL-9001-1910	Adaptor ring for KL-9001-1900		0,1 kg	BMW E46 (3 Series) BMW E39 (5 Series)
KL-9001-1310	Jaw size 3	165 - 210 mm	1,7 kg	universal
KL-9001-2301	Protective insert size 3 for KL-9001-1310		0,15 kg	universal

KL-9001-92 Jaw Set for Mercedes

Application: Mercedes C-Class (W203), CLK (W209)

Removal and replacement of front springs.

Part-No.	Description	Jaws-Ø	Weight	Applications
KL-9001-3100	Jaw ring	196 mm	3,0 kg	Mercedes C-class (W203) Mercedes CLK (W209)
KL-9001-3110	Adaptor ring for KL-9001-3100		0,7 kg	Mercedes C-class (W203) Mercedes CLK (W209)
KL-9001-1800	Jaw size 2	135 - 175 mm	1,8 kg	universal
KL-9001-2201	Protective insert size 2		0,1 kg	universal

Protective Inserts (Pat.)

Incl. 8 plastic rivets **KL-9001-2002** per pair of inserts.

Protective Insert Pair		For pair of Jaws	
Part No.		**Part No.**	
KL-9001-20	**size 0**	KL-9001-10	size 0
KL-9001-21	**size 1**	KL-9001-11	size 1
KL-9001-22	**size 2**	KL-9001-12	size 2
KL-9001-23	**size 3**	KL-9001-13	size 3
KL-9001-24	**size 1**	KL-9001-32	size 1
KL-9001-25	**size 1**	KL-9001-33	size 1

Note:
Vehicle Application List see page 1-24 and 1-25.

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Universal Spring Compressor KL-0015 in use!!!

⇒ Compression and removal of springs inside the vehicle.



⇒ Spring and upper spring cup compression.



⇒ Spring and upper spring cup compression.



⇒ Shock absorber replacement and installation of the upper spring cup with KL-0255 and KL-0255-10 (see pages 1-26 - 1-27)



⇒ Conic spring compression and decompression with KL-1590-1



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KL-0015 Universal Spring Compressor (Patented)

(e.g. US-Patent 4 976 416)

This legendary Spring Compressor remains after more than 20 years still the best on the market. No other unit has been sold so successfully in the past, and so widely used in the repair of MacPherson Struts.

The particular advantages are:



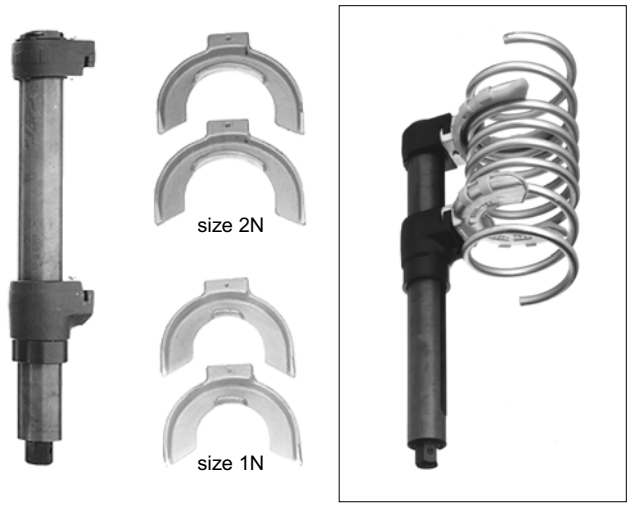
- ☑ An ever-increasing range of Jaws are available to respond to the ***ever-differing applications*** required by the latest vehicle types (Pat.)
- ☑ ***Exchangeable Protective Plastic Jaw Inserts*** are available to prevent damage to the coating of the coil-springs (German Utility Model)
- ☑ ***Conical*** or ***Barrel*** springs may be easily and safely compressed using the Adaptor ***KL-1590-1***
- ☑ Fully approved by BGS after ***Safety Tests***
- ☑ ***Universal for*** MacPherson- Struts and Semi-Struts
- ☑ ***Extended working travel of 300mm*** allows long coil-springs to be removed and replaced
- ☑ ***Patented*** Self-locking of the moving Jaw-holder under load of the compressed spring is not borne by the Spindle (Pat.)
- ☑ ***Minimum Distance between Jaws of 50mm*** Important for very short springs
- ☑ ***Spindle Drive*** fully rated for use with ***Air Impact Gun***
- ☑ ***Case hardened cylinder body***

Max. Load 17 500 N
For Coil-Springs with Ø 70-240 mm

Leading Car manufacturers have chosen the KL-0015 Spring Compressor.
VW- Audi, BMW, Ford and Opel-Vauxhall prescribe the use of Protective Jaw-inserts for compressing coil-springs in order to prevent the risk of spring breakages resulting from corrosion arising from damage to the outer coating.

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KL-0015



KL-0015 Universal Spring Compressor

Universal Spring Compressor with extended stroke.

Universal suitable for struts and semi-struts.
Supplied with Jaws size 1N and 2N.
Maximum Load: .....17 500 N. Working travel:.....300mm

Advantage:

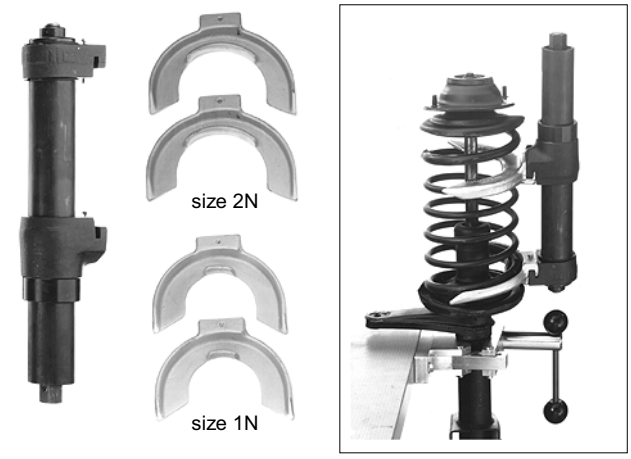
- Patented self-locking feature.
- Improved load absorption onto the hardened tool body.
- Approved by BGS German Workers Safety Insurance.
- Suitable for use with very long springs.

The ideal tool for the workshop.

KL-0015 SP Universal Spring Compressor

As **KL-0015**, but incl. Pair of Jaws with Protective Inserts.

KL-0013



KL-0013 Universal Spring Compressor

Suitable for struts and Semi-struts.
Supplied with Jaws size 1N and 2N.
Maximum Load:.....17 500 N. Working travel :...240 mm

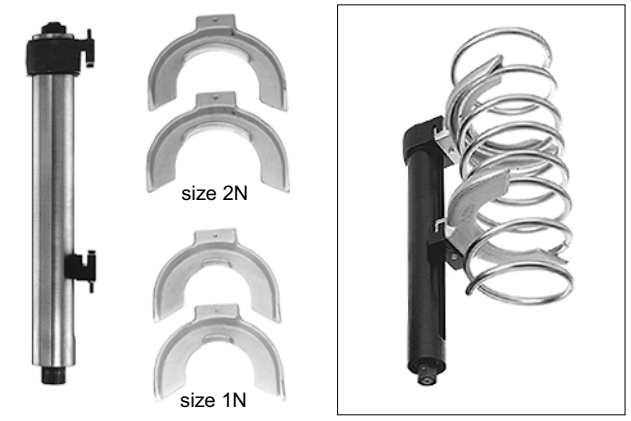
Advantage:

- Patented self-locking feature.
- Improved load absorption onto the hardened tool body.
- Approved by BGS German Workers Safety Insurance.

KL-0013 SP Universal Spring Compressor

As **KL-0013**, but incl. Pair of Jaws with Protective Inserts.

KL-2000



KL-2000 Universal Spring Compressor

Suitable for Struts and Semi-Struts.
Supplied with Jaws size 1N and 2N.
Maximum Load:.....8 500 N. Working travel :...245 mm

Advantage:

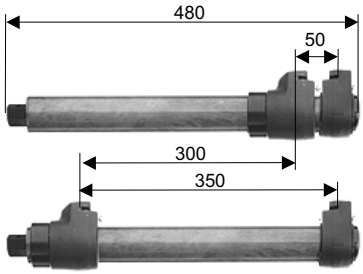
- Loading contained within the tool body.
- Improved load absorption onto the tool body.
- Tool body case hardened.
- Approved by BGS German Workers Safety Insurance.

KL-2000 SP Universal Spring Compressor

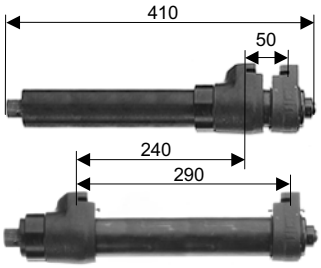
As **KL-2000**, but incl. Pair of Jaws with Protective Inserts.

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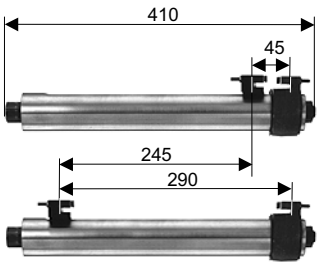
KL-0015-100



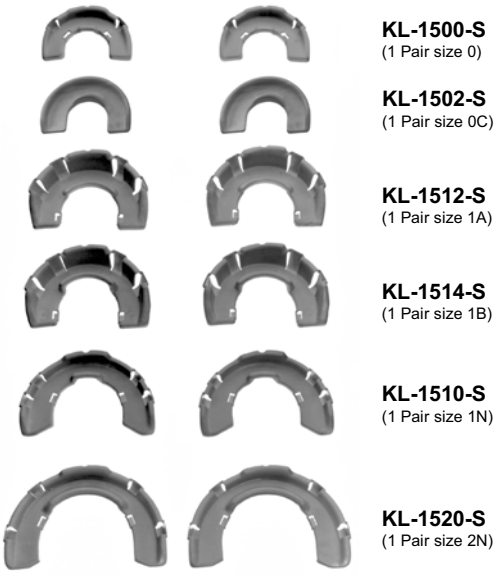
KL-0013-100



KL-2000-100



Protective Inserts



KL-1500-S
(1 Pair size 0)

KL-1502-S
(1 Pair size 0C)

KL-1512-S
(1 Pair size 1A)

KL-1514-S
(1 Pair size 1B)

KL-1510-S
(1 Pair size 1N)

KL-1520-S
(1 Pair size 2N)

KL-0015-100 Technical Data

Part No.	KL-0015-100
Compression length	50-350 mm
Working travel	300 mm
Overall Tool length (L)	480 mm
Drive	Ratchet or impact wrench drive
Max. load	17 500 N
Breaking point	80 000 N
Weight	6,3 kg

Note:
On account of the long working travel, only this Compressor Cylinder should be used in the workshop.

KL-0013-100 Technical Data

Part No.	KL-0013-100
Compression length	50-290 mm
Working travel	240 mm
Overall Tool length (L)	410 mm
Drive	Ratchet or impact wrench drive
Max. load	17 500 N
Breaking point	70 000 N
Weight	5,6 kg

KL-2000-100 Technical Data

Part No.	KL-2000-100
Compression length	45-290 mm
Working travel	245 mm
Overall Tool length (L)	410 mm
Drive	Ratchet or impact wrench drive
Max. load	8 500 N
Breaking point	32 000 N
Weight	4,8 kg

Protective Inserts

Protective Insert pair	For Jaws	Pair of Jaws complete with protective inserts
Part-No.	Part-No.	Part-No.
KL-1500-S	KL-1500	KL-1500-SP
KL-1502-S	KL-1502	KL-1502-SP
KL-1512-S	KL-1512	KL-1512-SP
KL-1514-S	KL-1514	KL-1514-SP
KL-1510-S	KL-1510	KL-1510-SP
KL-1520-S	KL-1520	KL-1520-SP

Protective insert (pcs.)	For Jaws	Pair of jaws complete with protective inserts
Part-No.	Part-No.	Part-No.
KL-1521-S	KL-1525	KL-1525-SP

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Special Jaws

Gr. 0



KL-1500
Pair of Jaws without Protective Inserts

KL-1500 SP
Pair of Jaws with Protective Inserts

size 0C



KL-1502
Pair of Jaws without Protective Inserts

KL-1502 SP
Pair of Jaws with Protective Inserts

size 1A



KL-1512
Pair of Jaws without Protective Inserts

KL-1512 SP
Pair of Jaws with Protective Inserts

size 1B



KL-1514
Pair of Jaws without Protective Inserts

KL-1514 SP
Pair of Jaws with Protective Inserts

Standard Jaws

size 1N
(Pat.)



KL-1510
Pair of Jaws without Protective Inserts

KL-1510 SP
Pair of Jaws with Protective Inserts

size 2N
(Pat.)



KL-1520
Pair of Jaws without Protective Inserts

KL-1520 SP
Pair of Jaws with Protective Inserts

Special Jaws

size 3N
(Pat.)



KL-1530
Pair of Jaws without Protective Inserts

size 5



KL-1550
Pair of Jaws without Protective Inserts

size 2B
KL-1525



size 6
KL-1561

KL-1581-R



KL-1571

Note:

VW Golf V ⇒ required jaws
Front axle - KL-1510 / Rear axle - KL-1502 + KL-1590-2

Peugeot 206 ⇒ required jaws
Front axle - KL-1561 + KL-1511 SP

Pair of Jaws

The following Jaws can be used for the Universal Spring Compressors **KL-2000, KL-0013, KL-0014 and KL-0015**.

Special Pair of Jaws

Part-No.	For Spring-Ø	Weight	Application
KL-1500 (size 0)	70-110 mm	Pair 1,1 kg	Audi, BMW, Daewoo, Daihatsu, Fiat, Ford, Honda, Kia, Lada, Mazda, Mercedes A Class, Mitsubishi, Nissan, Opel/Vauxhall, Rover, Seat, Škoda, Subaru, Suzuki, Toyota, Volvo, VW, Alfa Romeo, Chrysler etc.
KL-1502 (size 0C)	70-110 mm	Pair 1,1 kg	Volvo, Golf V
KL-1512 (size 1A)	80-150 mm	Pair 1,9 kg	Audi A4 front-axle, Audi A8 rear axle, Porsche, Saab 90/900, Chrysler, Opel/Vauxhall etc.
KL-1514 (size 1B)	85-150 mm	Pair 2,0 kg	Audi A8 front axle

Standard Pair of Jaws

Part-No.	For Spring-Ø	Weight	Application
KL-1510 (size 1N)	80-165 mm	Pair 1,3 kg	Alfa Romeo, Audi, BMW, Chrysler, Citroën, Daewoo, Daihatsu, Fiat, Ford, Honda, Hyundai, Kia, Lada, Lancia, Mazda, Mercedes A Class, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Porsche, Renault, Rover, Saab, Seat, Škoda, Ssang Yong, Subaru, Suzuki, Toyota, Volvo, VW etc.
KL-1520 (size 2N)	155-195 mm	Pair 1,9 kg	Alfa Romeo, Audi, BMW, Chrysler, Citroën, Fiat, Ford, Honda, Hyundai, Kia, Lancia, Mazda, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Renault, Rover, Saab, Seat, Subaru, Suzuki, Toyota, Volvo, VW, Porsche etc.

Special Pair of Jaws

Part-No.	For Spring-Ø	Weight	Application
KL-1530 (size 3N)	180-240 mm	Pair 3,0 kg	BMW 7 series (E38), Chrysler, Renault GM-X and C, Lancia (Gamma)
KL-1550 (size 5)	Special	Pair 2,3 kg	Citroën C 15 rear-axle, Peugeot 305 Break rear-axle

Special Jaws

Part-No.	For Spring-Ø	Weight	Application
KL-1525 (size 2B)	155-195 mm (larger rise)	1 piece 0,9 kg	BMW 3 series (E46) BMW 5 series (E39)
KL-1561 (size 6)	Special Recess: 110 mm Inner-Ø: 180 mm	1 piece 1,3 kg	Ford Probe, Mazda 323, 626, MX6, Mitsubishi-Galant with electronically-pneumatically controlled Strut
KL-1571	Special Recess: 139 mm Inner-Ø: 165 mm	1 piece 2,3 kg	BMW 8 series E31 BMW 3 series E46 (from `98) BMW 5 series E39 (from `95)
KL-1581-R	Special Recess: 162 mm Inner-Ø: 238 mm	1 piece 2,5 kg	Renault Laguna and Safrane, Lancia Gamma in conjunction with Jaw size 3 Hyundai

Note:
Vehicle Application List see page 1-24 and 1-25.

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KL-1516-SP

size 1C



KL-1540 (German Utility Model)



Special Jaws for BMW

German Utility Model

KL-1525



KL-1571



KL-1521-S



KL-1575



KL-1570-1

German Utility Model

KL-1525



KL-1521-S

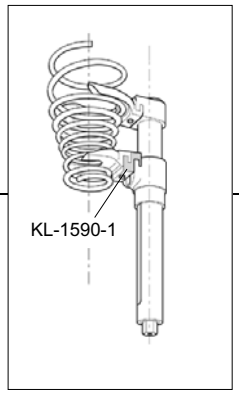


KL-1575



KL-1590-1





KL-1590-2



Note:
Vehicle Application List see page 1-24 and 1-25.

KL-1516-SP Jaws (Pair) size 1C
complete with Protective Inserts

Suitable for Audi A4 rear-axle from 2001.

This newly-developed pair of Jaws used in conjunction with Spring Compressor cylinder **KL-0015-100** allows the removal and replacement of the rear coil-springs in just a few minutes, without the need to dismantle the wish-bone or to drop the rear sub-frame. This method removes the need to perform a wheel-alignment after rear coil-springs have been replaced.

Jaws-Ø:..... 80-150 mm Weight: ..... 1.850 g

KL-1540 Jaw Set Size 4 (4 Pcs.)
(German Utility Model)

Application: VW Golf, Bora, 4x4 Off Roaders (4 Motion)

Advantage:

- Eliminates removal of the rear axle.
- Eliminates an additional re-alignment of rear axle geometry.
- Eliminates dismounting shock-absorber and Drive-Shaft.

These specially-formed Jaws are essential to remove and replace rear springs.

Part-No.	Description
KL-1540	**Jaw Set Size 4**
consists of :	
KL-1541	Jaw Size 4 left lower
KL-1543	Jaw Size 4 left upper
KL-1545	Jaw Size 4 right lower
KL-1547	Jaw Size 4 right upper

Special Jaws for BMW

Jaw **KL-1525** and the associated protection insert **KL-1521-S** allows compression of the front springs on **BMW E46 (3-series from '98), E39 (5-series from '95)** in conjunction with the Ring Jaw **KL-1571** and with the corresponding adaptor-ring **KL-1575**.

- **KL-1525 Jaw size 2B** The Jaw **KL-1525** provides a steeper helix (rise per 360° rotation) than the normal Jaw size 2 (KL-1521).
- **KL-1521-S Protective Insert size 2N** for use with Jaw KL-1525.
- **KL-1571 Ring-Jaw** suitable for BMW E31 (8-series) in conjunction with Jaw size 2N, and for E46 (3 series from '98), E39 (5 series from '95) in conjunction with Adaptor-Ring **KL-1575**.
  opening-Ø: ..... 139 mm Inner-Ø: ... 165 mm
- **KL-1575 Insert-Ring for Ring-Jaw KL-1571** suitable for BMW E46 (3 series from '98), E39 (5 series from '95) front coil springs.
  opening-Ø: ..... 139 mm Inner-Ø: ... 160 mm

KL-1570-1 Jaw Set BMW

contents:

Part-No.	Jaws-Ø	Description
KL-1525	155-195 mm	Jaw Size 2B
KL-1521-S	155-195 mm	Protective insert Size 2N
KL-1575	160 mm	Insert-Ring for KL-1571

KL-1590-1 Adaptor for Conical springs

Application Alfa Romeo, Chrysler, Nissan, Seat Arosa, VW Lupo etc. Allows **safe** compression of conical springs with **KL-0013**, **KL-0015** and **KL-2000** Spring Compressors.

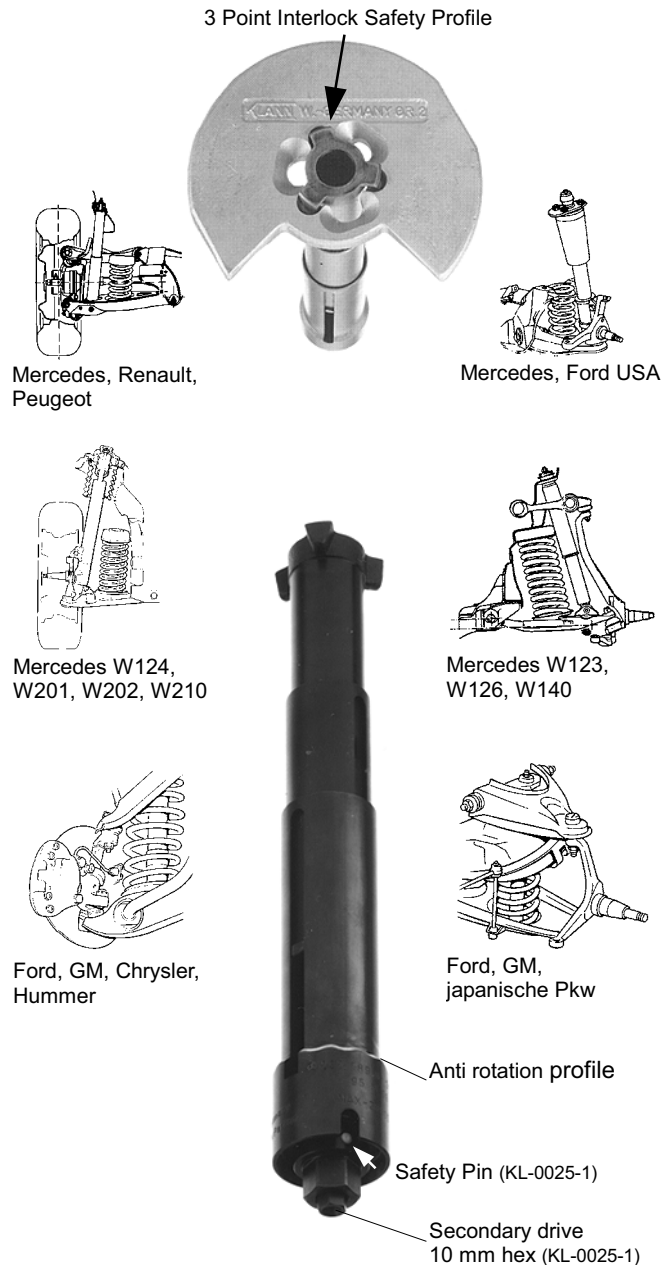
KL-1590-2 Adaptor-Set

For extending the jaws e.g. for compressing the **VW Lupo** Rear Springs or Barrel Springs. (Consists of 2x KL-1590-1).

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KL-0025-1 / KL-0021

Mercedes



KL-0025-1 K / KL-0021 K

Mercedes



KL-0025-1 Universal Spring Compressor

(Pat.) (e.g. US-Patent 4 809 951)

As **KL-0025-1 K** but without plastic case.

For wishbone and multi-link independent suspensions supplied with pairs of pressure plates size 1 and 2.

Fits to Mercedes W116, W123, W124, W126, W129, W140, W170, W171, W201, W202, W208, W210 and W211 front and rear axle.

Ford, GM, Chrysler, VW-type 2 and LT, Fiat, Hummer, Mazda, Toyota,Nissan, Mitsubishi, Renault, Peugeot, Volvo, etc.

This universal telescopic safety spring compressor with 3-point interlock, anti rotation profile and a new spindle overload protection is unique in its art (German Utility Model).
It offers the possibility of a quick and easy removal and installation of coil springs at wishbone and multi-link independent suspensions, without dismantling the axle (exceptions possible). Thus giving simultaneously a high level of safety and a job time saving of between 1 to 2 hours.

Note:
If the spindle is overloaded, the safety pin in the main drive breaks, but the drive mechanism remains active and the compressed spring can be released by the secondary drive. Accidents due to spindle overload are eliminated.

Advantage:

- The patented 3-point interlock allows compression of the spring only when the piston is correctly locked into the pressure plate. Accidents due to faulty interlock are eliminated.
- Automated free-wheel at maximum of working travel means that any residual spring pressure cannot be released.
- All important components, such as pressure plates, piston, tube and housing are fully interlocked with each other. This safety feature eliminates the possibility of the compressed spring unwinding itself.
- All critical components are drop-forged heat treated.
- This spring compressor has been tested and approved by the German Workers Safety Insurance (BGS) and by Mercedes.
- As a result of the telescopic design of the compressor which reduces the length of the tool as the spring is compressed , coil springs can very often be changed without the need to dismantle the suspension. Time saving of between 30 minutes and 2 hours per spring can be achieved.
- Universal use of the tool due to an extended variety of pressure plates.

KL-0025-1 K Spring Compressor with case

(Pat.)

As **KL-0025-1** but with Plastic Case.

Specification:

Part-No.	Description
KL-0025-1 K	**Spring Compressor with Case**
consists of:	
KL-0025-100	Cylinder with Overload Protection System for the Spindle
KL-0025-11	Pressure Plates Size 1
KL-0025-12	Pressure Plates Size 2
KL-0025-1090	Plastic Case

For Technical Data see page 1-20.

KL-0021 K Spring Compressor with case

(Pat.)

As **KL-0025-1 K** but without spindle overload protection.

Specification:

Part-No.	Description
KL-0021 K	**Spring Compressor with Case**
consists of:	
KL-0021-100	Cylinder
KL-0025-11	Pair of Pressure Plates Size 1
KL-0025-12	Pair of Pressure Plates Size 2
KL-0025-1090	Plastic Case

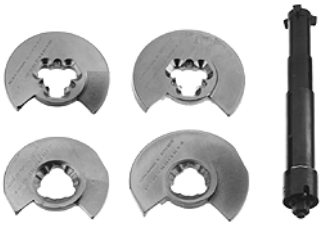
For Technical Data see page 1-20.

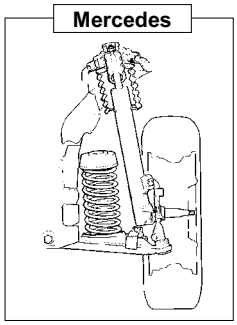
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KL-0025-1

KL-0025-100

size 1 KL-0025-11 size. 2 KL-0025-12



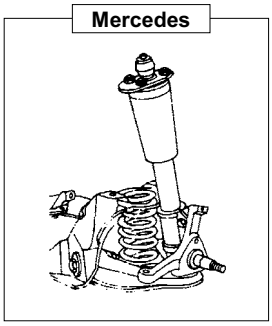


KL-0021

KL-0021-100

size 1 KL-0025-11 size 2 KL-0025-12

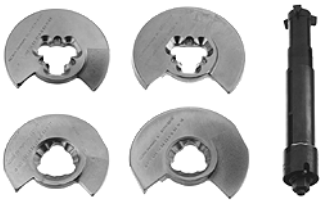


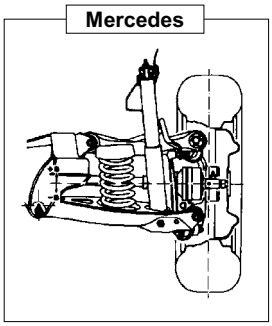


KL-0025-2

KL-0025-200

size 1 KL-0025-11 size 2 KL-0025-12

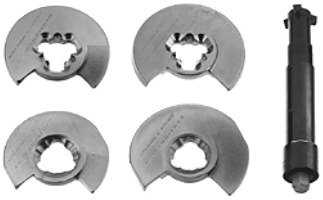


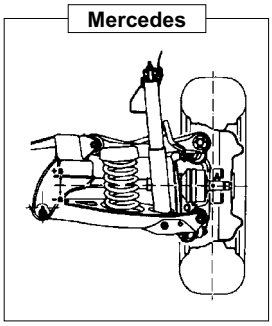


KL-0024

KL-0024-100

size 1 KL-0025-11 size 2 KL-0025-12





KL-0025-1 Spring Compressor (Pat.)

(e.g. US-Patent 4 809 951)

Developed to bring the highest possible safety to the job of compressing springs in wishbone axles.

Applications: **Mercedes** W116, W123, W124, W126, W129, W140, W170, W171, W201, W202, W208, W210, W211 front and rear axles.

Also applicable for: **Ford, GM, Chrysler, VW-Audi, Fiat, Mazda, Toyota, Nissan, Mitsubishi, Renault, Peugeot, Volvo** etc.

Advantage:

- Autom. 3-Point Safety Interlock
- Automatic free-wheel at end of stroke
- Anti rotation profile
- Spindle overload protection

Maximum Load: 26 000 N.

Technical Data: see page 1-20.

KL-0021 Spring Compressor (Pat.)

(e.g. US-Patent 4 809 951)

For **Chrysler, Mercedes** W116, W123, W124, W126, W129, W140, W170, W171, W201, W202, W208, W210, W211 and W124 4-Matic* front and rear axle.

Consists of: **KL-0021-100, KL-0025-11 and KL-0025-12**.

Advantage:

- Automatic 3-Point Safety Interlock.
- Automatic Freewheel at end of stroke.
- Anti rotation profile.

* KL-0021-5: Pressure Plates for Mercedes W124 4-Matic (on request).

Maximum Load: 26 000 N.

Technical Data: see page 1-20.

KL-0025-2 Spring Compressor (Pat.)

As **KL-0025-1**, but **short** version for rear-axles.
It allows the removal of rear axle springs in very limited room conditions without having to lower the rear axle support.

Suitable for **Mercedes** W107, W114. W115, W116, W123, W124, W126, W129, W140, W170, W171, W201, W202, W210 and W211 rear axle springs.

Note: BMW E87 (1 series) and **E90** (3 series) rear axle springs require that the compressor cylinder **KL-0025-200** is provided with the **KL-0025-16** pressure plates.
Consists of: KL-0025-200, KL-0025-11 and KL-0025-12

Advantage:

- Autom. 3-Point Safety Interlock
- Automatic free-wheel at end of stroke
- Anti rotation profile
- Spindle overload protection

Maximum Load: 26 000 N.

Technical Data: see page 1-20.

KL-0024 Spring Compressor (Pat.)

As **KL-0021**, but **short** version for rear-axles.

It allows the removal of rear axle springs in very limited room conditions without having to lower the rear axle support.

For **Chrysler, Mercedes** W107, W114, W115, W116, W123, W124, W126, W129, W140, W170, W201, W202, W208, W210, W211.

Consists of: KL-0024-100, KL-0025-11 and KL-0025-12.

Advantage:

- Automatic 3-Point Safety Interlock.
- Automatic free-wheel at end of stroke.
- Anti rotation profile.

Maximum Load: 26 000 N.

Technical Data: see page 1-20.

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Compressor Cyl. with Protection System for the Spindle.

KL-0025-100
Front Axle



KL-0025-200
Rear Axle



Compressor Cyl. without Protection System for the Spindle.

KL-0021-100
Front Axle



KL-0024-100
Rear Axle



Technical Data for Compressor Cylinders

KL-0025-100 Compressor Cylinder with Protection System for the Spindle

Description: (Front Axle)

- Telescopic construction with 3-point safety interlock
- Automatic freewheel at the end of stroke
- Anti rotation profile
- Overload protection

Compression range: 110-317 mm
Working travel: 207 mm
Overall Tool length (L): 263 mm
Drive: (6-point) hex 19 mm
Max. load: 26 000 N
Breaking point: 120 000 N
Weight: 1,5 kg

KL-0025-200 Compressor Cylinder with Protection System for the Spindle

Description: (Rear Axle)

- Telescopic construction with 3-point safety interlock
- Automatic freewheel at the end of stroke
- Anti rotation profile
- Overload protection

Compression range: 110-287 mm
Working travel: 177 mm
Overall Tool length (L): 233 mm
Drive: (6-point) hex 19 mm
Max. load: 26 000 N
Breaking point: 120 000 N
Weight: 1,3 kg

KL-0021-100 Compressor Cylinder without Protection System for the Spindle

Description: (Front Axle)

- Telescopic construction with 3-point safety interlock
- Automatic freewheel at the end of stroke
- Anti rotation profile

Compression range: 110-317 mm
Working travel: 207 mm
Overall Tool length (L): 262,5 mm
Drive: (6-point) hex 19 mm
Max. load: 26 000 N
Breaking point: 120 000 N
Weight: 1,5 kg

KL-0024-100 Compressor Cylinder without Protection System for the Spindle

Description: (Rear Axle)

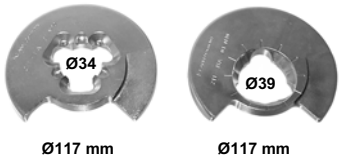
- Telescopic construction with 3-point safety interlock
- Automatic freewheel at the end of stroke
- Anti rotation profile

Compression range: 110-287 mm
Working travel: 177 mm
Overall Tool length (L): 232,5 mm
Drive: (6-point) hex 19 mm
Max. load: 26 000 N
Breaking point: 120 000 N
Weight: 1,3 kg

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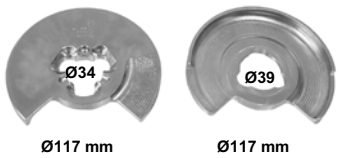
Special Pressure Plates with eccentric receiving bore

size 0 — **KL-0025-16**



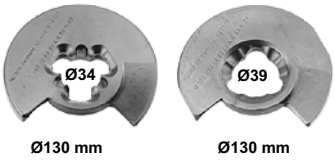
Special Pressure Plates

size 1.5 — **KL-0025-17**

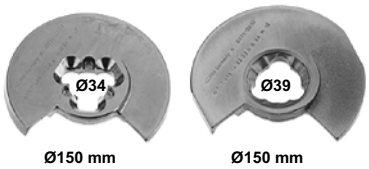


Standard Pressure Plates

size 1 — **KL-0025-11**

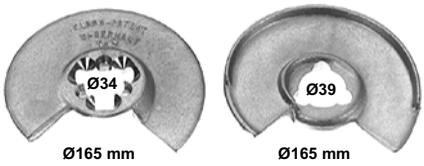


size 2 — **KL-0025-12**

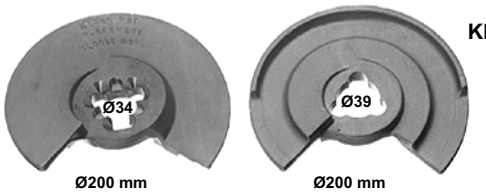


Special Pressure Plates

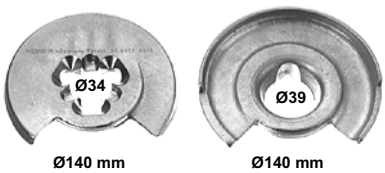
size 3 — **KL-0025-13**



size 4 — **KL-0025-14**



size 5 — **KL-0025-5**



Note: Spring application list see page 1-24 and 1-25.

Pair of Pressure Plates

Corrugated on the anti-rotation pressure plates ⇒ to lock the pressure plates and prevent the pressure plate rotation during compression or in stressed position and the removal of stressed springs from the spring compressor.

Special Pair of Pressure Plates
with eccentric receiving bore (German Utility Model)

Part-No.	Spring range	Weight	Application
KL-0025-16 (size 0)	Spring-Ø: 95-110 mm Rise over 240°=6 mm	1,1 kg	**Mercedes** rear axle e.g. W211 (E-Class) W209 (CLK) **BMW** E87 (1 series) rear axle E90 (3 series) rear axle

Description:

Due to the eccentric offset of the central hole, coil springs which have a pronounced bow may be safely compressed and removed and replaced without the need to dismantle the rear axle.

- High time savings

Special Pair of Pressure Plates

Part-No.	Spring range	Weight	Application
KL-0025-17 (size 1.5)	Spring-Ø: 100-130 mm Rise over 270°=7 mm	1,9 kg	**Mercedes rear axle** M-Class (W164)

Standard Pair of Pressure Plates

Part-No.	Spring range	Weight	Application
KL-0025-11 (size 1)	Spring-Ø: 95-120 mm Rise over 240°=6 mm	1,3 kg	**Mercedes** W116, W123, W124, W129, W201, W202, **front axle**; W124, W124 4-Matic, W129, W201, W202, **rear axle** ; **Saab ; Skoda ; Ford ; etc.**
KL-0025-12 (size 2)	Spring-Ø: 120-140 mm Rise over 240°=6 mm	1,8 kg	**Mercedes** W126, W140 **front axle**; W107, W114, W115, W 116, W123, W126, W140, W203 **rear axle**; **Opel; GM; Lada; Peugeot; Rover; Hyundai; Saab; Volvo; VW T 2; Ford Taunus; Mitsubishi; etc.**

Special Pair of Pressure Plates

Part-No.	Spring range	Weight	Application
KL-0025-13 (size 3)	Spring-Ø: 100-155 mm Rise over 240°=20 mm	2,1 kg	**Ford Australien; GM; Ford-**Taunus-Granada; **Renault** rear axle; **VW LT** front axle; **Peugeot** rear axle; **etc.**
KL-0025-14 (size 4)	Spring-Ø: 155-190 mm Rise over 180°=25/15 mm	2,3 kg	**Renault** R25 rear axle; **Hummer; etc.**
KL-0025-5 (size 5)		1,8 kg	**Mercedes** W124 4-Matic front axle

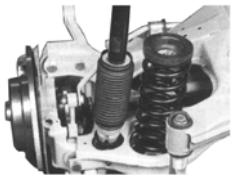
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1

KL-0016



BMW



KL-0026

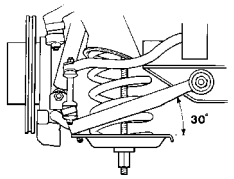
Jaguar XJ-6



KL-0027



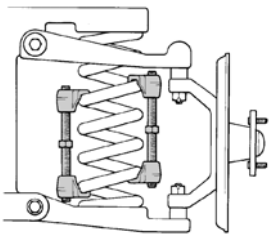
Aston Martin / Jaguar



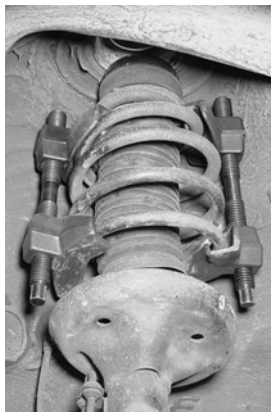
KL-0006-2



Universal



Spring compressed
e.g. VW Golf IV



KL-0016 Spring Compressor

For wishbone (front and rear axles) e.g. rear axle on **BMW 8 series** inkl. Pair of Pressure Plates Size 0.

This spring compressor allows replacement of the coil springs without the need to dismantle the rear axle.

The patented 3-point interlock ensures safe function of the tool.

Extension: 25-270 mm; Working travel: 245 mm;
Max. load 20 000 N.

Accessories:

Pair of pressure plates **KL-0016-1** for Mercedes W124/W201
Pair of pressure plates **KL-0016-2** for Mercedes W123/W126

KL-0016-5 Spring Compressor (not illustrated)

As **KL-0016** but with 1 pair Pressure Plates size 1 (**KL-0016-1**).

Suitable for **Mercedes W124; W201**.

Accessories:

KL-0016-2 Pressure Plates size 2 (For MB W123; W126).

KL-0026 Spring Compressor

For **Jaguar XJ-6.**

This spring compressor allows front springs to be removed and replaced quickly and safely. One-man operation - automatically adjusts to extreme spring-curvature.

KL-0027 Spring Compressor

For **Jaguar XJ-S and Aston Martin.**

The compressing technique allows quick and safe replacement of front springs, together with easy alignment of the bottom spring plate to lower wishbone holes.

KL-0006-2 Spring Compressor (Pair)

Allows the compressing of the spring at the car, so the strut can be taken out without dismounting the bearing housing.

This is important on the front axle of **VW** vehicles and on the rear axle of **Ford Mondeo**, etc. Time saving: .....1 - 2 hours

Especially suitable for:

⇒ Step bearing suspension strut replacement e.g. VW Golf IV

Thanks to the spring compressor **KL-0006-2** the step bearing suspension strut can be replaced inside the vehicle in a few minutes without having to remove and re-install the suspension strut.

Expenditure of time about 15 minutes;
Time saving about 1 hour.

⇒ Spring and shock unit removal and installation. e.g. VW Golf IV

By using the spring compressor **KL-0006-2** springs can be compressed inside the vehicle without having to remove the axle box case/cardan shaft. In this way when the shock unit clamping hole has been opened by means of the expander **KL-0104-21**, the spring and shock unit can be easily taken out of the clamping hole.

Expenditure of time about 10 minutes;
Time saving about 30 minutes.

Maximum Load: .... 8 000 N Compression Lenght: ...65-200 mm

The spindles are equipped with contra-rotating threads which eliminate the risk of slipping round the spring. (Not suitable for use on Mercedes springs.)

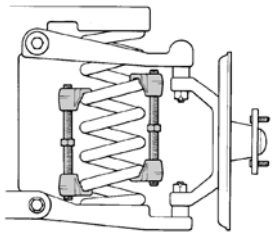
Note: Refer to page 1-02 to see spring compressors for spring removal. Two part spring compressors without safety loop are not authorized in workshops.

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KL-0005



Universal



KL-0006



KL-..80 includes KL-0008



Change shock-absorber inserts without strut removal



KL-0008

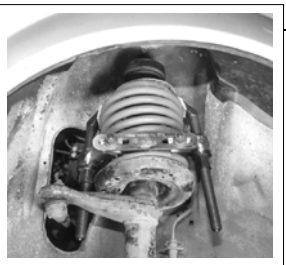


Universal

KL-0008-1



KL-0008-12



KL-0005 Spring Compressor (Pair)

For use with MacPherson Struts in which Spring Pressure does not exceed 8 000 N.
The spindles are equipped with contra-rotating threads which eliminate the risk of slipping round the spring.
(Not suitable for use on Mercedes springs.)

Max. Load: .. 8 000 N Compression length: ... 65-320 mm

Accessories: KL-0005-1 Pair of spindles for self-levelling spring assemblies.

Note: Two part Spring Compressors without safety loop are not authorized in workshops.

KL-0006 Spring Compressor (Pair)

For replacement of self levelling shock absorbers, particularly for rear axles on **Mercedes** and **Ford**.

Max. Load: .. 8 000 N Compression length: ... 85-170 mm

Advantages:

- Contra-rotating threads to eliminate slip.
- Hex drive situated in the centre of the spindle permitting easy use in confined spaces where other spring-compressors cannot be used.

Note: Two part Spring Compressors without safety loop are not authorized in workshops.

KL-..80 Tool Set for the fast shock absorber service (Patented)

For nearly every shock absorber insert without dismounting the MacPherson Strut.

Part No.	Description
KL-..80	**Tool Set**
consists of:	
KL-0008	Spring Compressor Universal (Pat.)
KL-0050-1	Box Spanner 29 mm hex, Drive 1/2“
KL-0050-2	Box Spanner 33.5 mm hex, Drive 1/2“
KL-0054	Tool Set Universal
KL-..80-0001	Plastic Storage Case (empty)

KL-0008 Spring Compressor (Patented)

KL-0008 Safety Spring Compressor which allows shock-absorber inserts to be exchanged on the vehicle, without the need to remove the strut from the vehicles.

Time savings: ..... ½ - 2 hours
Maximum Load: ..... 10 000 N
Compression Length: ..... 42-210 mm
Spring-Ø: ..... 110-188 mm
Drive: ..... hex 24 mm

KL-0008-1 Spring Compressor (Patented)

As **KL-0008** but supplied with a special long impact socket **KL-0008-12** which allows operation of the spring compressor by a ½“ impact gun.

KL-0008-12 Special Impact Socket hex 24

Special long impact socket with 24 mm and ½“-square dive to operate Spring Compressor KL-0008-1 using an impact gun.

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Manu-facturer	Jaws for KL-9001 / KL-9002	Model	Jaws for KL-0015 / KL-2000	Model
Alfa Romeo	KL-9001-11	predominantly	KL-1500	156, 147
	KL-9001-12	33, 164, 147	KL-1510	predominantly
	KL-9001-13	145, 146, 155, GTV, Spider	KL-1520	predominantly
	KL-9001-15	156	KL-1590-1	156
Audi	KL-9001-10	80. A4, A8	KL-1500	80, A4
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-13	100, 200, A6	KL-1512	A4, A8
	KL-9001-32	Audi A8 (armoured)	KL-1514	A8
			KL-1516	A4
			KL-1520	100, 200, A6
BMW	KL-9001-11	predominantly	KL-1500	predominantly
	KL-9001-12	3 series (E36), Z3	KL-1510	predominantly
	KL-9001-13	5 series (E39), 7 series (E32), 7 series (E38), X5, X3	KL-1520	3 series (E36), Z3, X3
	KL-9001-1310	3 series (E46), 5 series (E39)	KL-1525	3 series (E46), 5 series (E39)
	KL-9001-1900	3 series (E46), 5 series (E39)	KL-1530	7 series (E38)
	KL-9001-1910	3 series (E46), 5 series (E39), Z8	KL-1571	3 series (E46), 5 series (E39)
			KL-1575	3 series (E46), 5 series (E39)
				1 series (E87), 3 series (E90) (see also KL-0025-200)
Chrysler	KL-9001-10	Stratus	KL-1500	Stratus
	KL-9001-11	LeBaron, Cherokee, Gr. Cherokee, Wrangler	KL-1510	predominantly
	KL-9001-12	Vision, New Yorker, Wrangler	KL-1512	Stratus
	KL-9001-13	predominantly	KL-1520	Neon, 300M, Vision, Wrangler
	KL-9001-15	Stratus	KL-1530	LeBaron, Vision, New Yorker
			KL-1590-1	Stratus
Citroën	KL-9001-11	C15, AX, ZX, C2, C3	KL-1510	C15, AX, Saxo, ZX, Xsara, C2, C3
	KL-9001-12	Saxo, Xsara, Berlingo	KL-1520	Evasion, Berlingo, Jumpy
	KL-9001-13	Evasion, Jumpy, Jumper	KL-1550	C15
	KL-9001-14	C15		Evasion RA, Jumpy RA (see also KL-0021/KL-0025-1)
				Jumper
Daewoo	KL-9001-10	Matiz	KL-1500	Matiz
	KL-9001-11	Lanos, Nubira	KL-1510	Lanos, Nubira
Daihatsu	KL-9001-10	Cuore, Sparcar	KL-1500	Cuore, Sparcar
	KL-9001-11	predominantly	KL-1510	predominantly
				Charade RA (see also KL-0021/KL-0025-1)
Fiat	KL-9001-10	predominantly	KL-1500	Panda
	KL-9001-11	Uno, Fiorino, Croma, Punto	KL-1510	predominantly
	KL-9001-12	Cinquecento, Punto, Barchetta	KL-1520	predominantly
	KL-9001-13	predominantly, especially for Ducato		Ulysse RA, Scudo RA (see also KL-0021/KL-0025-1)
Ford	KL-9001-10	Fiesta, KA, Puma, Escort, Orion, Focus	KL-1500	Fiesta, KA, Puma, Escort, Orion
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Mondeo,	KL-1520	Mondeo, Galaxy, Probe
	KL-9001-13	Galaxy, Probe	KL-1561	Probe
				Escort RA, Orion RA (see also KL-0021/KL-0025-1)
Honda	KL-9001-10	predominantly	KL-1500	predominantly
	KL-9001-11	Legend	KL-1510	Accord, CR-V, Shuttle, Prelude, Legend
	KL-9001-12	Concerto, Civic, Stream	KL-1520	Concerto, Civic, Stream
				Shuttle RA (see also KL-0021/KL-0025-1)
Hyndai	KL-9001-11	Atos, Accent	KL-1510	Atos, Accent
	KL-9001-12	Lantra, Coupe	KL-1520	Lantra, Coupe
Jaguar			KL-1511	XK8
			KL-1513	XK8
			KL-1590-1	XK8
				XJ-S (see also KL-0027)
				XJ-6 (see also KL-0026)
Kia	KL-9001-10	Pride	KL-1500	Pride
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-13	Clarus	KL-1520	Clarus
Lada	KL-9001-10	Samara, Battic	KL-1500	Samara, Battic
	KL-9001-11	predominantly	KL-1510	predominantly
				Nova (see also KL-0021/KL-0025-1)
Lancia	KL-9001-10	Y	KL-1510	Y10, Y, δ (Delta), Thema, k (Kappa)
	KL-9001-11	Y10, δ (Delta), Thema, κ (Kappa)	KL-1520	predominantly
	KL-9001-12	Y, Prisma, Dedra, κ (Kappa)	KL-1530	γ (Gamma)
	KL-9001-13	δ (Delta), Dedra, Thema, Z (Zeta)	KL-1581 R	γ (Gamma)
				Z (Zeta) RA (see also KL-0021/KL-0025-1)
Mazda	KL-9001-10	121, MX5, Xedos, 6, 929	KL-1500	121, MX5, Xedos, 6, 929
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	323, 626, MX3, MX6, Xedos	KL-1520	626, MX3, MX6, Xedos
	KL-9001-13	626	KL-1561	323, 626, MX6
Mercedes	KL-9001-10	A-Class, Smart, Vaneo	KL-1500	A-Class, Smart, Vaneo
	KL-9001-11	A-Class, M-Class	KL-1510	M-Class
	KL-9001-12	V-Class, Vito	KL-1520	Viano
	KL-9001-13	Viano		
	KL-9001-15	E-Class (W210)		
	KL-9001-17	E-Class (W211)		
	KL-9001-18	C-Class (W203), G-Class (W463)		For further spring compressors for Mercedes cars
	KL-9001-3100	C-Class (W203), CLK (W209)		see KL-0021 / KL-0024 / KL-0025-1
	KL-9001-3110	C-Class (W203), CLK (W209)		

NOTE: Repair instructions issued by Audi, BMW and Ford state that compression of coil-springs should only be performed using plastic protective inserts. **Plastic Protection Inserts are available upon request.**

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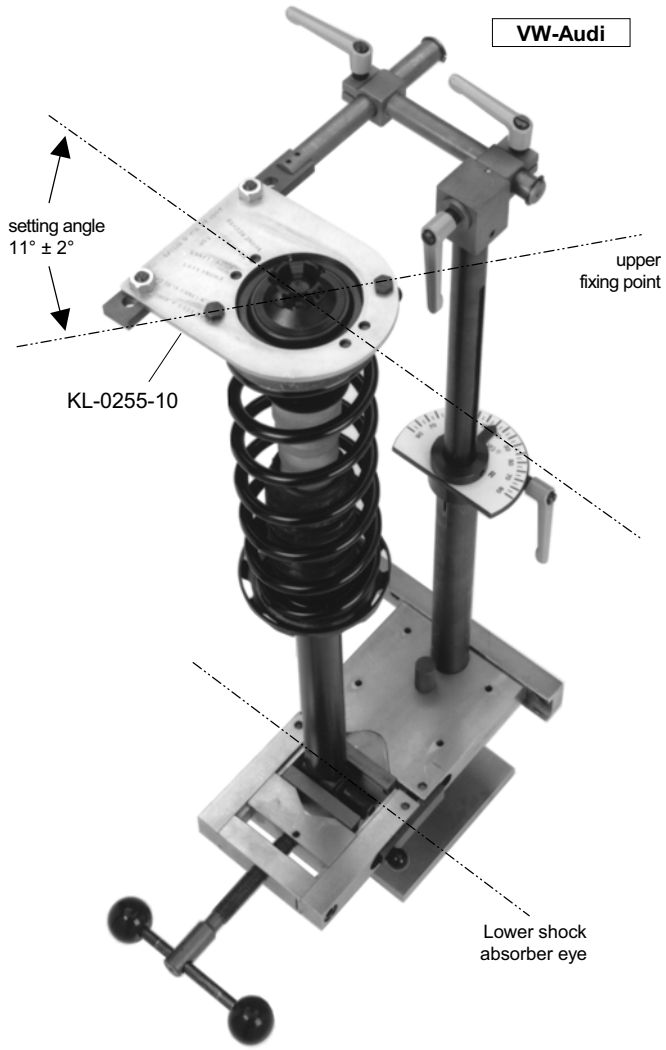
Manu-facturer	Jaws for KL-9001 / KL-9002	Model	Jaws for KL-0015 / KL-2000	Model
Mitsubishi	KL-9001-10	Colt, Carisma, Eclipse, Galant	KL-1500	Colt, Carisma, Eclipse, Galant
	KL-9001-11	predominantly	KL-1510	Colt, Lancer, Space Wagen, Galant, Sigma
	KL-9001-12	Colt, Lancer, Space Runner,	KL-1520	predominantly
	KL-9001-13	Sigma, Carisma, Space Wagon, Eclipse		
Mini			KL-1500	Cooper
			KL-1520	Cooper
			KL-1561	Cooper
Nissan	KL-9001-10	Micra	KL-1500	Micra, Primera
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Pimera, 200SX	KL-1520	predominantly
	KL-9001-13	Maxima QX, Serena, Pathfinder, Primera	KL-1590-1	Primera, Pathfinder, Patrol
	KL-9001-15	Primera		
	KL-9001-17	Pathfinder, Primera		
				Micra RA (see also KL-0021/KL-0025-1)
Opel	KL-9001-10	predominantly rear axle	KL-1500	predominantly RA
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Ascona C, Rekord E, Omega B, Senator, Monza,	KL-1512	Small Cars
		Sintra, Arena, Movana	KL-1520	Ascona C, Rekord E, Omega B, Senator, Monza
				Sintra
				Wishbone RA (see also KL-0021/KL-0025-1)
Peugeot	KL-9001-11	104, 205, 305, 305 Break, 306, 309, 405	KL-1510	104, 205, 305,.305 Break, 307, 306, 309, 405,
	KL-9001-12	106, 206, 307, 406, 505, 605, 607, Partner	KL-1520	106, 206, 307, 406, 505, 604, 605, 607, 806,
	KL-9001-13	307, 604, 806, J5, Boxer		Partner, J5
	KL-9001-14	305 Break	KL-1550	305 Break
	KL-9001-1920	307		Boxer FA
				Wishbone RA (see also KL-0021/KL-0025-1)
Porsche	KL-9001-10	911, 928, 968	KL-1510	predominantly
	KL-9001-11	924, 944, Boxster	KL-1512	predominantly
			KL-1520	911, Boxster
Renault	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Predominantly especially for Master	KL-1520	Mégane, Laguna, R25, Espace, R9, R11, R14
	KL-9001-13	R21, Laguna, R25, Safrane, Espace	KL-1530	R21, Safrane,
			KL-1581-R	Laguna, Safrane
				Wishbone RA (see also KL-0021/KL-0025-1)
				Wishbone FA (see also KL-0035)
Rover	KL-9001-10	400, 600, Austin Montego	KL-1500	400, 600, Austin Montego
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	200	KL-1520	200, Freelander
	KL-9001-13	Freelander		Wishbone RA (see also KL-0021/KL-0025-1)
Saab	KL-9001-10	9-5	KL-1510	900, 9-3, 9-5
	KL-9001-11	predominantly	KL-1512	90, 900
	KL-9001-12	9000	KL-1520	9000
				Wishbone RA (see also KL-0021/KL-0025-1)
Seat	KL-9001-10	Terra, Ibiza, Cordoba, Toledo	KL-1500	Ibiza, Cordoba, Teledo
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Alhambra	KL-1520	Alhambra
	KL-9001-17	Arosa	KL-1590-1	Arosa
Skoda	KL-9001-10	Fabia, Favorit, Felicia	KL-1500	Fabia, Favorit, Felicia
	KL-9001-11	Fabia, Favorit, Felicia, Octavia	KL-1510	Felicia, Favorit, Felicia, Octavia
				Wishbone Axles see also KL-0021/KL-0025-1
Smart	KL-9001-10	Smart	KL-1500	Smart
Ssang Yong	KL-9001-11	Korando, Musso	KL-1510	Korando, Musso
Subaru	KL-9001-10	Justy, Legacy, Libero	KL-1500	Justy, Libero, Legacy, Outback
	KL-9001-11	1800, Legacy	KL-1510	1800, Legacy,
	KL-9001-12	Legacy, Forester, SVX, Outback	KL-1520	Legacy, Forester, SVX, Outback
	KL-9001-13	Legacy, Forester, SVX, Outback		
Suzuki	KL-9001-10	Alto, Vitara, Jimmy, Wagon R+	KL-1500	Alto, Vitara, Wagon R+
	KL-9001-11	Swift, Baleno, Jimmy	KL-1510	Alto, Swift, Baleno, Jimmy
	KL-9001-12	Baleno	KL-1520	Baleno
Toyota	KL-9001-10	Starlet, Paseo, MR2	KL-1500	MR2
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	Avensis, Camry, Celica, Corolla, 4-Runner	KL-1520	Avensis, Camry, Corolla, Previa, RAV4, 4-Runner
	KL-9001-13	Camry, Previa, RAV4		
Volvo	KL-9001-10	S40, V40	KL-1500	S40, V40
	KL-9001-11	predominantly	KL-1510	predominantly
	KL-9001-12	440, 460, 480, 940, 960, S90, V90	KL-1520	predominantly
	KL-9001-13	S40, V40, S80		
VW	KL-9001-10	predominantly	KL-1500	Bora, Golf II, Golf III, Golf IV, Polo II, Polo III,
	KL-9001-11	predominantly		Jetta II, Scirocco II, Vento
	KL-9001-12	Sharan	KL-1502	Golf V
	KL-9001-13	T5	KL-1510	predominantly
	KL-9001-15	Lupo rear axle	KL-1520	Sharan, T5
	KL-9001-33 SP	Touareg	KL-1590-1	Lupo
				Bus T2, LT FA (see also KL-0021/KL-0025-1)

NOTE: Repair instructions issued by Seat, Skoda and VW state that compression of coil-springs should only be performed using plastic protective inserts. **Plastic Protection Inserts are available upon request.**

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KL-0255



KL-0255 with KL-0015



KL-0255 Strut Vise and Adjustment Tool
(Patented)

For VW-Audi 1990 onwards.

This strut vise and adjustment tool establishes quick, easy and correct adjustment and repairs of struts on the workbench.

Due to the special design strut tubes can be clamped vertically and damper eye bolts can be clamped horizontally.

The built in protractor permits *exact positioning of the strut base-fixing in relation to the upper locating fixture.*

Advantages:

1. Strut can be clamped quickly and easily.
2. Universal application for all struts with the same construction.
3. Strut tubes can be clamped vertically and damper eye bolts can be clamped horizontally.
4. The graduated protractor ensures compatibility with future suspension systems, unlike fixed struts.
5. The tool can be mounted on a bench or in a vise.

Note for Audi cars:

Suspension legs as fitted to the front and rear axles of Audi 80, Audi 100 from 1992 onwards inclusive Audi A4, A6 and VW Passat from 1996 onwards require installation with a predetermined offset between the upper and lower fixture points, in order to permit problem-free installation.
It is essential to align the upper and lower mounting plates prior to installation of assembled strut.
If this prior alignment is not carried out, assembly will only be possible by forcing the mounting holes of the upper and lower plates, and this action of forcing will lead to premature failure of the ride-level control seal, noisy suspension and most often a pull to right or left in the steering which cannot be corrected by steering geometry alignment.

Weight: ..... 26 kg

Attention:

- ***Use only the Spring Compressor KL-0015 and protective inserts for VW-Audi.***

Accessories:

KL-0255-10 - Adjustment plate for Audi A4
(B5 from '96 - '01), front and rear axle.

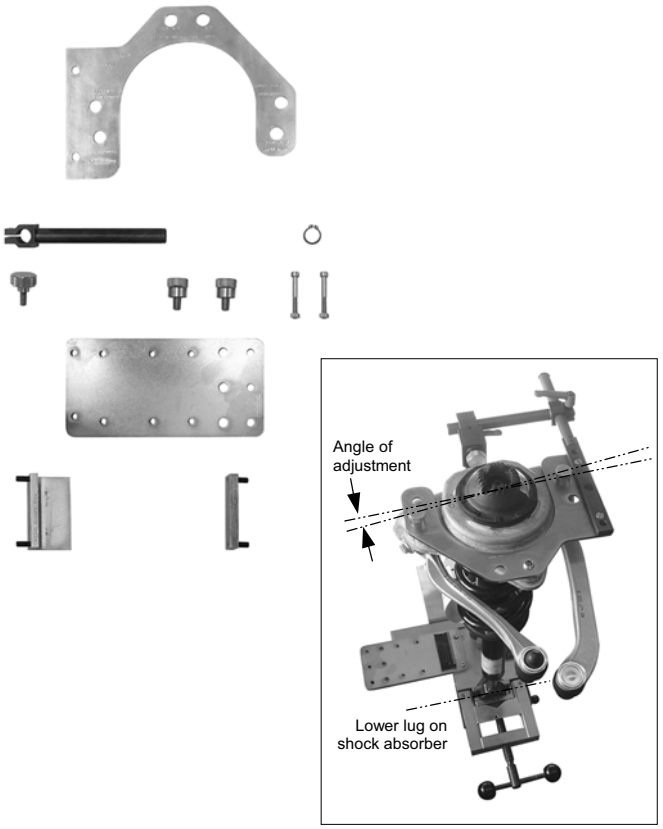


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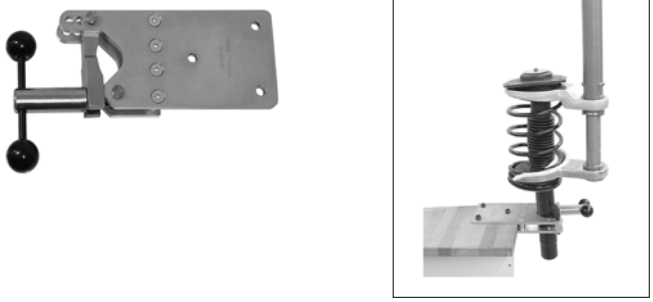
Audi 80/90 rear axle	21° ± 2°
Audi 100 Quattro from '91 onwards rear axle	51° ± 2°
Audi 100 (Front WD) from '91 onwards rear axle	45° ± 2°
Audi A4 front axle	11° ± 2°
Audi A4 rear axle	50° ± 2°
Audi A6 from '97 onwards	11° ± 2°
VW Passat from '96 onwards	11° ± 2°

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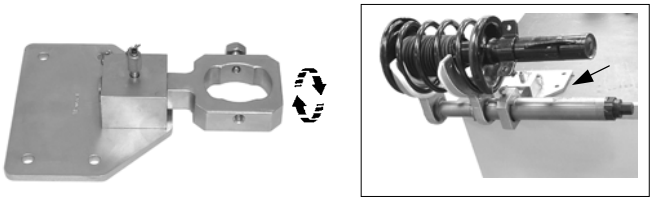
KL-0255-11



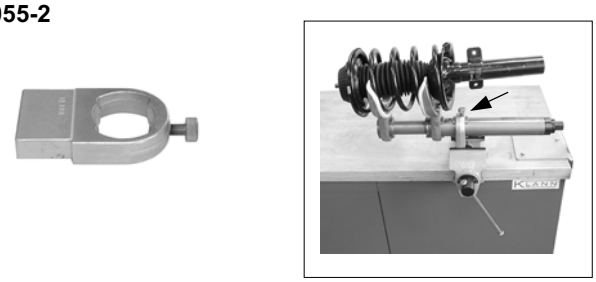
KL-0055-50



KL-9055-1



KL-9055-2



KL-0255-11 Additional tool set for Audi A6

(for use with adjusting fixture KL-0255)
(German Utility Model)

Suitable for Audi A6 (04/04 onwards) front axle.

The additional tool set, when used with the clamping and adjusting fixture **KL-0255**, makes clean, quick adjustment of the spring plate possible in relation to the retaining lug of the shock absorber strut.
With the adjusting gauge, the precise amount of offset between the lower shock absorber strut mounting and the upper spring plate can be adjusted correctly (see picture).

Note for VW and Audi vehicles:

The front spring/shock absorber struts on VW-Audi vehicles must be pre-adjusted on the workbench, so that the upper mounting point (the spring plate) and the lower shock absorber strut mounting (fork/shock absorber lug) are correctly aligned with one another.

Unless this work is undertaken first, the shock absorber strut cannot be installed, because the fastening points between the shock absorber strut and the body/axle beam will not be aligned.

If the shock absorber strut mounting is forced into the correct position, the O-rings for level control will be damaged and the shock absorber strut will be **distorted**, which could lead to drumming noise and cause the vehicle to handle incorrectly.

KL-0055-50 Holding Fixture

(German Utility Model)

For MacPherson Struts, Shock-Absorbers and Steering Racks.

The strut vise has to be screwed on the workbench and enables a clean, safe and quickly repairing.
Strut axles should NOT be tensed in a vice for mounting (deformation).

KL-9055-1 Holding Fixture

Holding Fixture for the Spring Compressors **KL-9002** and **KL-9001**. The Fixture can rotate through 360° so allowing Struts to be clamped horizontally or vertically.

KL-9055-2 Holding Fixture

Holding Fixture suitable for the Spring Compressors **KL-9002** and **KL-9001**.

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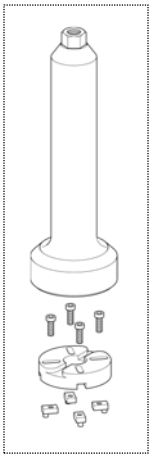
1

KL-0054-K



Contents:

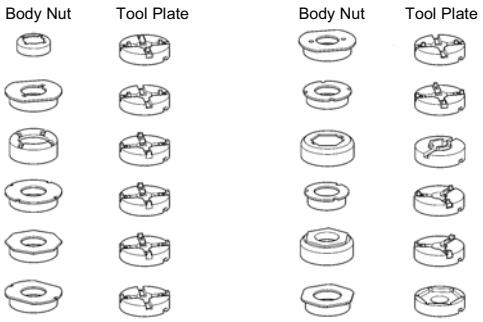




Accessory: KL-0054-0051



The Problem: Wide variety of Body-Nut profiles used to retain shock-absorber inserts.



Shock Absorber Service Tools

For the Shock Absorber Service.

The use of KLANN Tool Sets **KL-0050**, **KL-0051**, **KL-0052 K** or **KL-0054 K** guarantees damage-free removal and replacement of Body Nuts during replacement of shock absorber cartridge inserts.

Stubborn or corroded Body Nuts are quickly and easily undone. The inclusion in the Tool Sets of flat and round profiled inserts allows the universal application of the correct tool-profile for every type of Body Nut.

The Special Socket **KL-0054-0010** included in the **KL-0054 K** Tool Set allows easy removal and replacement of Body Nuts on Gas shock absorbers which have strengthened damper-rods (except “Bilstein”). The drive-head of the Special Socket incorporates a series of steps for direct application to Body Nuts with dimensions 46, 51, 55, 58 and 60 mm.

The shock absorber body nuts can also be loosened by putting on directly the extension nut **KL-0054-0010**.

KL-0054-K Strut Nut Tool Kit

Universal

For nearly every shock absorber insert nut including Garbon Gas Shocks (Bilstein excepted).

This Tool Set replaces KL-0050 / KL-0051 / KL-0052

- **Quick**
- **Safe**
- **Clean**

Contents:

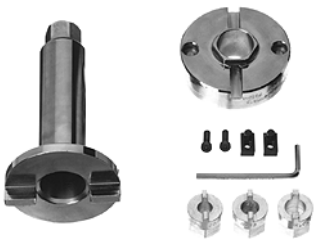
Part-No.	Description	Qty.
KL-0054-K	**Strut Nut Tool Kit Universal**	**1**
consists of:		
KL-0050-0022	Screw M6 × 18 Din 7984	4
KL-0050-0023	Allen Key 4 mm	1
KL-0050-0025	Round Key	4
KL-0050-0027	Flat Key	4
KL-0050-0070	Drive Nut Set (Set of 3 Sockets)	1
KL-0054-0010	Extension Socket	1
KL-0054-0011	O-Ring	1
KL-0054-0021	Plate, 90° Universal	1
KL-0054-0035	Plate for VW-Audi	1
KL-0054-0090	Storage Case	1

Accessory:

Part-No.	Description	Qty.
KL-0054-0051	Plate 120° Division without Key	1

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KL-0050



VW- Audi, Seat, Škoda

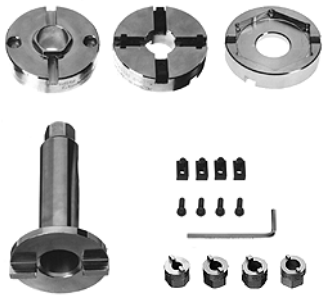


KL-0051





KL-0051-5



Universal



KL-0055
Strut Vise

KL-0052-K



KL-0050 Strut Nut Tool Kit

For shock absorber insert nuts on **VW-Audi** including Special Drive Nut Set **KL-0050-0070** for slotted damper-rod nuts.

Part-No.	Description	Qty.
KL-0050	**Strut Nut Tool Kit**	**1**
consists of:		
KL-0050-0010	Extension Socket	1
KL-0050-0022	Screw M6 x 18	2
KL-0050-0023	Allen Key 4 mm	1
KL-0050-0035	Plate for VW-Audi (29 mm & 33.5 mm hex)	1
KL-0050-0036	Key for VW-Audi	2
KL-0050-0070	Drive Nut Set (Set of 3 Sockets)	1
Accessory:		
KL-0050-0090	Plastic Storage Case	1

KL-0051 Strut Nut Tool Kit

For shock absorber insert nuts suitable for **European vehicles** (except Gas Shocks).

- Eliminates the use of pipe wrenches
- Eliminates the use of hammer and chisel
- Eliminates the use of welding torches

Part-No.	Description	Qty.
KL-0051	**Strut Nut Tool Kit**	**1**
consists of:		
KL-0050-0010	Extension Socket	1
KL-0050-0021	Plate, 90° - Universal	1
KL-0050-0022	Screw M6 x 18	4
KL-0050-0023	Allen Key 4 mm	1
KL-0050-0025	Round Key	4
KL-0050-0027	Flat Key	4
KL-0050-0035	Plate for VW-Audi (29 mm & 33.5 mm hex)	1
KL-0050-0070	Drive Nut Set (Set of 3 Sockets)	1
Accessory:		
KL-0050-0090	Plastic Storage Case	1

KL-0051-5 Strut Nut Tool Kit

Part-No.	Description	Qty.
KL-0051-5	**Strut Nut Tool Kit**	**1**
consists of:		
KL-0050-0010	Extension Socket	1
KL-0050-0021	Plate, 90° - Universal	1
KL-0050-0022	Screw M6 x 18	4
KL-0050-0023	Allen Key 4 mm	1
KL-0050-0025	Round Key	4
KL-0050-0027	Flat Key	4
KL-0050-0035	Plate for VW-Audi (29 mm & 33.5 mm hex)	1
KL-0050-0060	Plate, 60 mm hex for GM Opel/Vauxhall	1
KL-0050-0071	Drive Nut Set (Set of 4 Sockets)	1
Accessory:		
KL-0050-0090	Plastic Storage Case	1

KL-0052-K Strut Nut Tool Kit Universal

For shock absorber insert nuts for nearly all vehicles including Japanese (Gas Shocks excepted).

- **Quick** • **Safe** • **Clean**

Part-No.	Description	Qty.
KL-0052-K	**Strut Nut Tool Kit Universal**	**1**
consists of:		
KL-0050-0010	Extension Socket	1
KL-0050-0021	Plate, 90° - Universal	1
KL-0050-0022	Screw M6 x 18	4
KL-0050-0023	Allen Key 4 mm	1
KL-0050-0025	Round Key	4
KL-0050-0027	Flat Key	4
KL-0050-0035	Plate for VW-Audi (29 mm & 33.5 mm hex)	1
KL-0050-0050	Plate, 120° for Japanese Cars	1
KL-0050-0060	Plate, 60 mm hex for GM Opel/Vauxhall	1
KL-0050-0070	Drive Nut Set (Set of 3 Sockets)	1
KL-0050-0090	Plastic Storage Case	1

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1

KL-0250-1

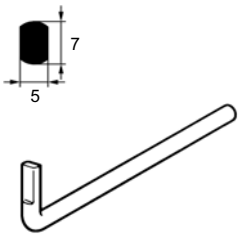


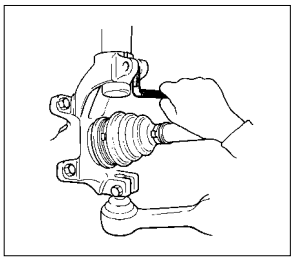


VW-Audi, Seat, Škoda

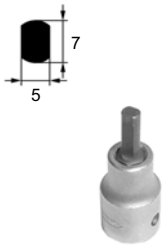


KL-0101

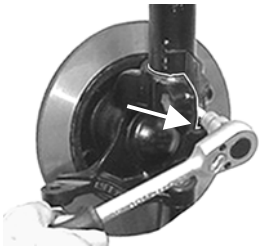




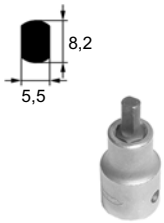
KL-0101-1



VW-Audi, Ford, Peugeot



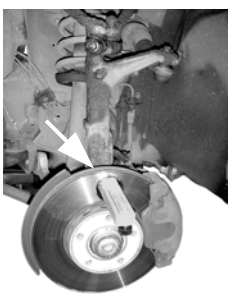
KL-0101-2



KL-0168-90 K



Universal



KL-0250-1 Strut Tool

For removal and replacement of the rear shock absorbers on **VW-Audi, Ford, Opel, Japanese cars, etc**. 5 mm and 6 mm hex.

KL-0101 Pry Bar for Hub Castings

Application:

Ford, VW-Audi, Peugeot, Renault, Citroën, Japanese cars, etc.

So that the spring/shock absorber unit can be pulled out of the bore in the steering knuckle even if it is a tight fit, it is essential to open out the clamping bore with pry bar **KL-0101**.

Chisels or Screwdrivers should never be used to spread the casting!

Length:.....205 mm
Pry Width:.....7 mm
Breadth:.....5 mm
Weight:.....65 g

KL-0101-1 Pry Socket 5 mm

Suitable for semi-strut clamp-castings on:

VW-Audi, BMW, Citroën, Ford, Seat, Škoda, Renault, Peugeot, Japanese cars, etc.

So that the spring/shock absorber unit can be pulled out of the bore in the steering knuckle even if it is a tight fit, it is essential to open out the clamping bore with pry socket **KL-0101-1**. Also required for easy insertion of the replacement Strut into the hub. Eliminates risk of damage to the hub casting and eliminates risk of accidents which can result from the use of hammers and chisels.

Drive:..... 1/2“
Weight:.....75 g
Pry width:.....7 mm
Length:.....60 mm
Breadth:.....5 mm

KL-0101-2 Pry Socket 5.5 mm

Suitable for semi-strut clamp-castings on:

VW Golf IV, Audi TT,
VW-Audi, BMW, Citroën, Ford, Seat, Škoda, Renault, Peugeot, Japanese cars, etc.

As **KL-0101-1** but with **5.5 mm** and Pry Width **8.2 mm**.

Drive:..... 1/2“
Weight:.....75 g
Pry Width:.....8.2 mm
Length:.....50 mm
Breadth:.....5.5 mm

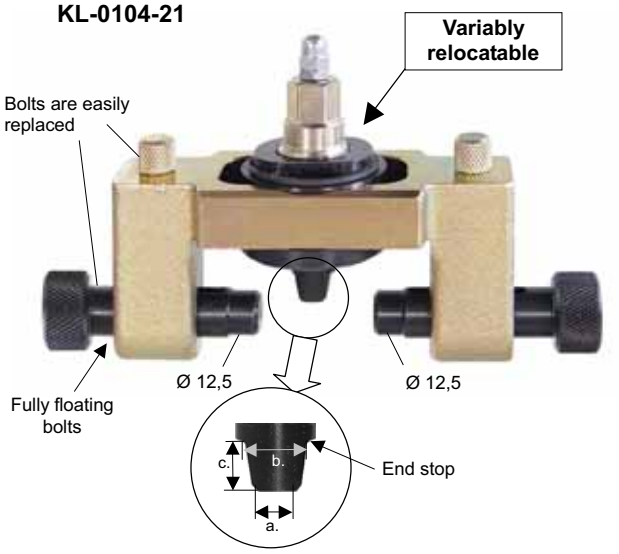
KL-0168-90 K Camber Gauge (in Case)

The **KL-0168-90 K** Camber Gauge with magnetic foot allows the existing camber angle to be memorised before the suspension is dismantled. fter reassembly the camber can be set to the previous setting without timeconsuming geometry check.

Weight:.....500g

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KL-0104-21





Accessories:

KL-0104-2111



KL-0104-2120



KL-0104-20



KL-0104-21 Spreader tool (univ.)

(German Utility Model)

Suitable for strut clamping bores on (for example):
VW Golf V, Passat; Audi; BMW; Citroën; Ford; Seat; Škoda; Renault; Peugeot; Japanese vehicles etc.

So that the spring/shock absorber unit can be pulled out of the bore in the steering knuckle even if it is a tight fit, it is essential to open out the clamping bore with spreader tool **KL-0104-21**. After this, the shock absorber unit can be removed or installed without difficulty, without risk of damaging the (cast iron or aluminium) steering knuckle.

Due to the variably relocatable spreading head it is especially suitable for vehicles whose fastening slot is out of centre such as VW-Audi, Ford etc.

Due to its dimensions and special form the replaceable wedge of the spreading head is particularly suitable for *aluminium knuckles*. The wedge is provided with an end stop to avoid excessive knuckle widening. Other wedges are available as accessories (e.g. for steel knuckles).

Fully floating bolts avoid the tool canting during knuckle widening.

Technical Data:

Mounting hole breadth (max.): ..... 60 mm
Widening dimensions (widening wedge): a: 5,8 mm; b: 8,5 mm; c: 4,5 mm
Weight: ..... 900 g

Accessories:

KL-0104-2111 Bolts Ø10 mm
Suitable for M12 tapped holes e.g. for **VW T5**
(required for knuckle bores with internal thread)

KL-0104-2120 Drive screw with wedge
Particularly suitable for *steel knuckles.*

Technical Data:

a. : .....5,9 mm b. : ..... 8 mm c. :..... 7 mm

KL-0104-20 Spreader tool (univ.)

(German Utility Model)

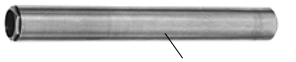
Suitable for VW-Audi, BMW, Citroën, Ford, Seat, Škoda, Renault, Peugeot, Japanese vehicles etc.

As **KL-0104-20** but with fixed spreading head.

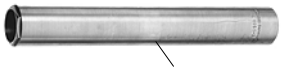


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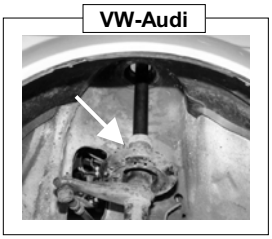
KL-0050-100



KL-0050-1



KL-0050-2



KL-0050-100 Special Socket Set

Extra long Special Sockets to loosen or tighten the gland nuts retaining shock-absorber inserts on **Audi 80, 90, 100, 200, A6; VW Polo, Golf, Jetta, Vento, Passat,** etc.

Consists of:

KL-0050-1 Special Socket 29 mm hex
suitable for Audi 80/90, VW Polo, Golf, Jetta, Vento, Passat, etc.

KL-0050-2 Special Socket 33,5 mm hex
suitable for Audi 100, 200, A6

KL-0050-50





KL-0050-50 Special Toothed Socket

For removal of damper rod nuts on **Mercedes W203 (C-Class), W209 (CLK) front axle.**

KL-0050-510



KL-0050-51



KL-0056-52



KL-0050-510 Damper Rod Tool Set

Suitable for Mercedes W203 (C-Class), W209 (CLK) front axle.

To loosen or tighten the Damper Rod Nut

Consists of:

KL-0050-51 Toothed Socket (drive: 22 mm hex)

KL-0056-52 7 mm Allen Key Socket Insert

Accessories:

KL-0056-21 - Hex Socket 21 mm

To loosen the Damper Rod Fastening Nut from the body.

KL-0050-0001 to KL-0050-0007





KL-0050-0001 to KL-0050-0007

Damper Rod Lifting Tools.

Part No.	Inner -Thread	Examples
KL-0050-0001	M12×1.25	BMW
KL-0050-0002	M15×1.5	GM/Opel
KL-0050-0003	M12×1.5	Audi
KL-0050-0005	M10×1	Renault
KL-0050-0006	M14×1.5	VW-Audi, Opel
KL-0050-0007	M10×1.5	BMW

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KL-0050-0070

KL-0050-0070



VW-Audi, Austin, Seat, Škoda



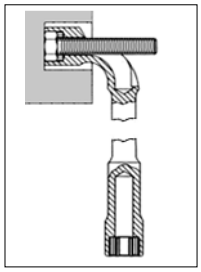
KL-0050-0071

KL-0050-0071



25 PK- Series







Note:
For further information see GEDORE catalog.

KL-0050-0070 Toothed Socket Set (3 Pcs.)

Drive Nut for Shock Absorber Damper Rods.

Part No.	Description	Bore	for
KL-0050-0070	**Toothed Socket Set**		
consists of:			
KL-0050-0012	Toothed Socket	10,5 mm	VW Golf rear axle
KL-0050-0013	Toothed Socket	12,5 mm	VW Polofront axle
KL-0050-0014	Toohed Socket	14,5 mm	Polo, Golf, Passat, Audi 80, Vento
Accessory:			
KL-0050-0015	Toothed Socket	14,5 mm	Austin Maestro

KL-0050-0071 Toothed Socket Set (4 Pcs.)

Drive Nut for Shock Absorber Damper Rods.

Part No.	Description	Bore	for
KL-0050-0071	**Toothed Socket Set**		
consists of:			
KL-0050-0012	Toothed Socket	10.5 mm	VW Golf rear axle
KL-0050-0013	Toothed Socket	12.5 mm	VW Polofront axle
KL-0050-0014	Toothed Socket	14.5 mm	Polo, Golf, Passat, Audi 80
KL-0050-0015	Toothed Socket	14.5 mm	Austin Maestro

25 PK- Series Double ended socket wrench angled, with hole

GEDORE socket wrench Heavy duty pattern with two hexagon heads and Through-hole on the angled side to take long studs or a tommy bar. Chrome-plated.

Available Sizes (hex):

9 mm, 10 mm, 11 mm, 12 mm, 13 mm, 14 mm, 16 mm, 17 mm, 18 mm, 19 mm, 21 mm, 22 mm, 24 mm, 27 mm, 30 mm, 32 mm, 34 mm, 36 mm.

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KL-0056-1





KL-0056-1 Damper Rod Tool Set

Designed to stop the damper-rod from rotating while the retaining nut is removed or replaced. Allows the use of a torque-wrench to achieve the correct torque without the risk of the damper-rod rotating.

Contains:

- 8 deep sockets 14, 16, 17, 18, 19, 21, 22, 27 mm with drive 19 mm;
- 20 different profiles of damper-rod with drive 10 mm;
- Storage Case (440 × 340 × 100 mm)

Composition and Usage:

Deep Sockets, Length 82 mm

Part No.	Description	for:
KL-0056-14	Hex Socket 14 mm	Nissan
KL-0056-16	Hex Socket 16 mm	VW-Audi, Seat, Fiat
KL-0056-17	Hex Socket 17 mm	VW-Audi, Seat, Fiat
KL-0056-18	Hex Socket 18 mm	VW-Audi, Seat, Citroën, Fiat, Opel/Vauxhall, Peugeot, Renault, Jap. cars
KL-0056-19	Hex Socket 19 mm	VW-Audi, Seat, Citroën, Fiat, Opel/Vauxhall, Peugeot, Renault, Jap. cars
KL-0056-21	Hex Socket 21 mm	VW-Audi, BMW, Mercedes, Jap. Cars, Volvo
KL-0056-22	Hex Socket 22 mm	VW-Audi, Seat, Citroën, Fiat, Opel/Vauxhall, Peugeot, Renault
KL-0056-27	Hex Socket 27 mm	VW-Audi, Citroën, Peugeot

Socket Inserts

Part No.	Description		for:
KL-0056-43	Hex Insert	9 mm	Opel/Vauxhall
KL-0056-45	Hex Insert	11 mm	Japanese cars
KL-0056-51	Allen Key	6 mm	BMW, Seat, Fiat, Citroën, Peugeot, Opel/Vauxhall, Renault, Jap. cars
KL-0056-52	Allen Key	7 mm	VW-Audi, Seat, Fiat, Citroën, Mercedes, Peugeot, Renault
KL-0056-53	Allen Key	8 mm	Mercedes
KL-0056-60	Insert Slit	3 mm	Opel/Vauxhall, Renault
KL-0056-61	Insert Slit	3.5 mm	Citroën, Peugeot
KL-0056-62	Insert Slit	4 mm	Citroën, Peugeot
KL-0056-70	Double Flat	4 mm	Nissan
KL-0056-71	Double Flat	5.2 mm	VW-Audi, Nissan
KL-0056-72	Double Flat	6 mm	VW-Audi, Renault
KL-0056-73	Double Flat	6.3 mm	Nissan
KL-0056-74	Double Flat	7 mm	VW-Audi, Seat, Fiat
KL-0056-75	Double Flat	8 mm	Seat, Fiat
KL-0056-76	Double Flat	9 mm	Japanese cars, Volvo
KL-0056-77	Double Flat	10 mm	Seat, Fiat
KL-0056-78	Double Flat	12 mm	Seat, Fiat
KL-0056-81	Single Flat "D"	5 mm	Nissan
KL-0056-86	Single Flat "D"	10 mm	Nissan
KL-0056-96	Inner Spline	12 mm	Opel/Vauxhall

Case:

Part No.	Description
KL-0056-1020	Plastic Storage Case (440 × 340 × 100 mm)

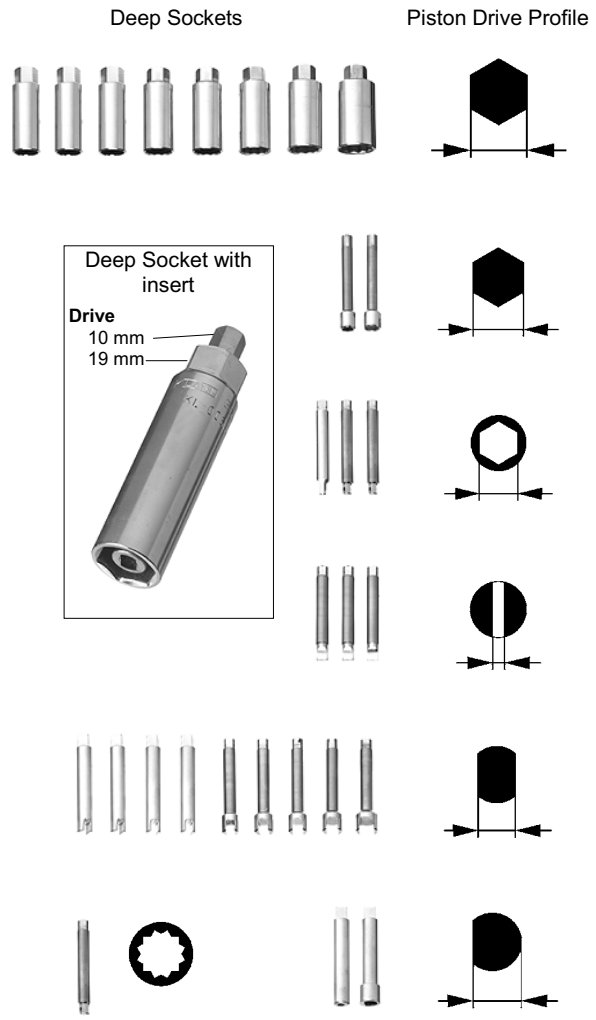
Accessories: (Not Illustrated)

Part No.	Description	Qty
KL-0056-50	Allen Key 5 mm	1
KL-0056-35	Torx Insert T40 (VW, Porsche)	1

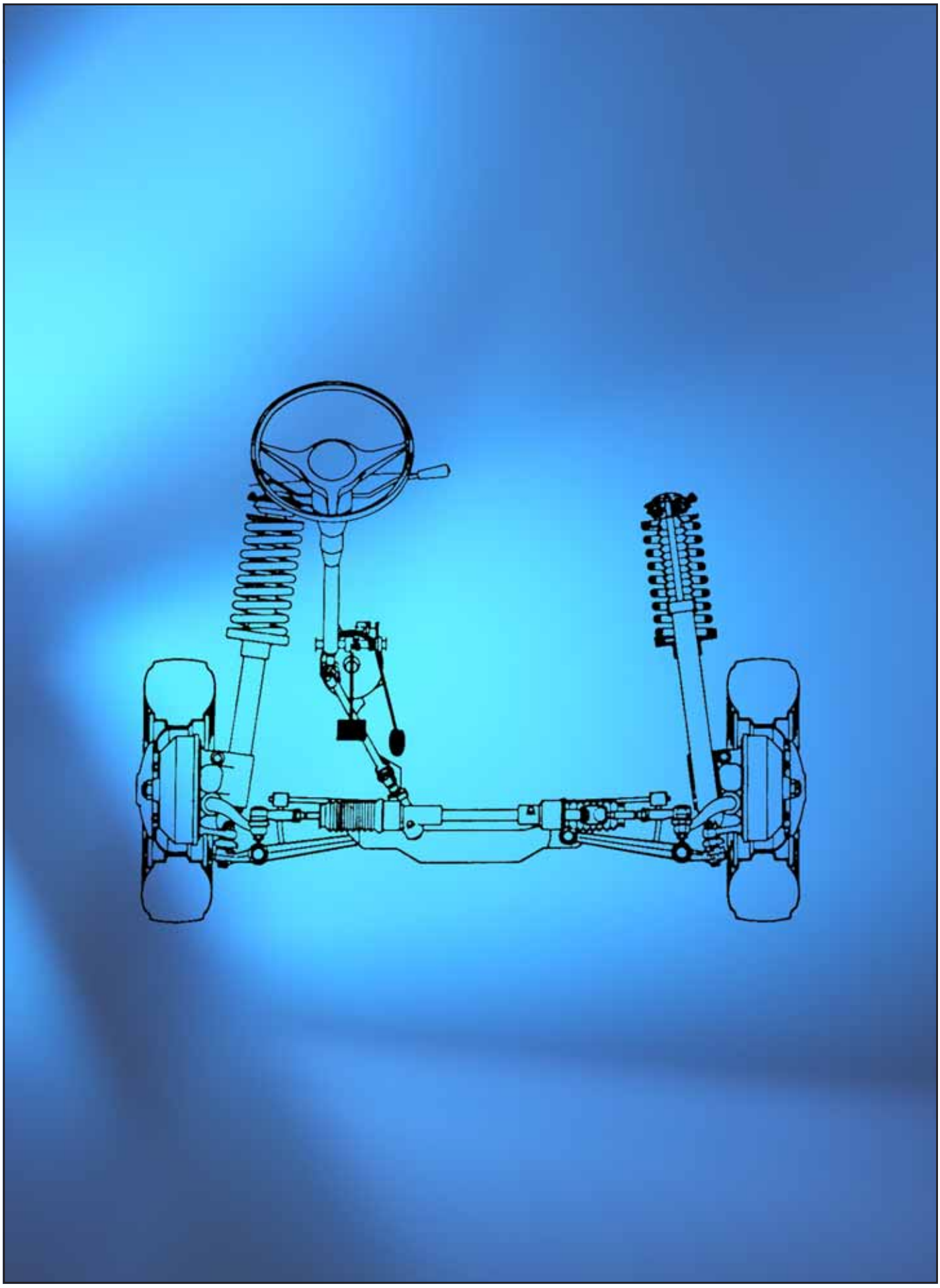
Example for Application:

KL-0056-18 + KL-0056-35 suitable for Porsche Cayenne / VW Touareg etc.

Composition of Damper Rod Tool Set: KL-0056-1



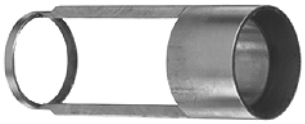
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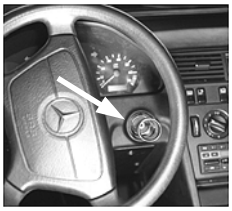
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KL-0372-4



Mercedes W202, W210



KL-0372-5

Mercedes



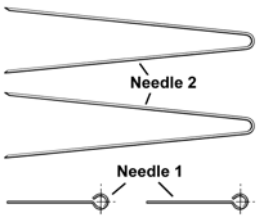
KL-0372-6



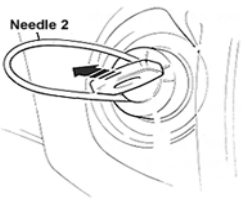
Mercedes



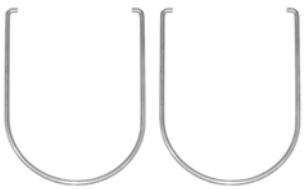
KL-0372-1



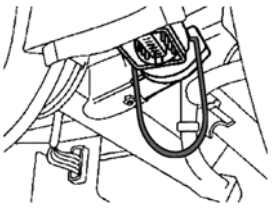
Mercedes



KL-0372-70



Mercedes



KL-0372-4 Sleeve for Ignition Switch

The mounting sleeve **KL-0372-4** is a special tool designed for removal and refitting the ignition switch on **Mercedes W202 and W210** up to '97.

The tool consists of tubular outer casing with a conical rubber insert.

KL-0372-5 Braker Bar

Overcomes problems on **Mercedes W124 and W201** up to 1993.

If the ignition key should break in the ignition lock. In this event, the **KL-0372-5** allows the ignition switch assembly to be broken off the steering column so that a new switch assembly may be fitted.

Advantages of the tool:

- No damage to steering column and dash board.
- No drilling out of the locking switch.
- Increased job time saving.
- Low tool costs.
- No accidents.

KL-0372-6 Assembly Sleeve for Ignition Switch

For removal and replacement of the ignition switch retaining ring fitted to **Mercedes types W129, W140, W203, W208, W209, W210, W211, W220 and W230** with FBS 2 and FBS 3 Ignition Switch.

KL-0372-1 Needle Set for Ignition Switch

For removal of ignition switch on **Mercedes** passenger cars

The needle set **KL-0372-1** contains needles of size 1 and size 2 with a diameter of 1.25 and 2.0 mm.

They are applicable for the removal of the ignition switch on following types:

- Needle 1 on **Mercedes W116, W123 and W126**
- Needle 2 on **Mercedes W124 and W201**

Advantages:

- Problem-free and quick removal of the ignition switch on the specified types.

KL-0372-70 Spring Tool for Steering Lock protection sleeve (2 Pcs.)

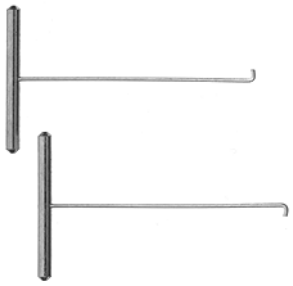
Suitable for Mercedes W129, W140, W210 and W202 with FBS2 Ignition Switch

To remove the Protection Sleeve with the Ignition Switch from the Steering Lock, it is necessary to press in both Locking Bolts in the Steering Lock using **KL-0372-70**.

The Set contains 2 Spring Tools made from stainless steel.

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KL-0372-3



Mercedes



KL-0372-3 Pulling Hooks long

For easy removal of the instrument panel on **Mercedes passenger cars W116, W123, W124, W126, W129, W140, W201, W202, W203, W208, W209, W210, W211, W220 and W 230.**

KL-0191-10



VW- Audi, BMW, Mercedes



KL-0191-10 Special Torx Driver Torx® T30

(with pilot)

This tool allows easy removal and replacement of the retaining screws on airbag fitted to **BMW, Mercedes.**

Access is permitted by special length of 85 mm with ¼“-drive.

Length: ..... 85 mm
Drive: ..... ¼"
Weight: ..... 22 g

KL-0191-11



KL-0191-11 Special Torx Driver Torx® T30

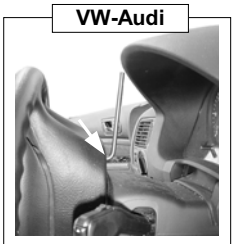
This Tool allows easy removal and replacement of the retaining screws on airbags fitted to **VW, Audi (A4 Bj. ‘96-‘05), Opel, Renault** etc.

Length: ..... 85 mm
Drive: ..... ¼"
Weight: ..... 22 g

KL-0242-10



VW-Audi



KL-0242-10 Airbag Removal Tool Set (2 Pcs.)

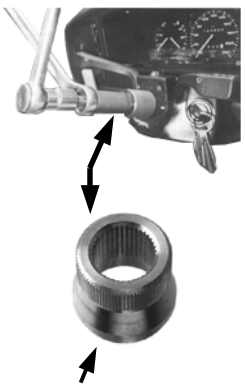
Suitable for Driver’s air bag housing e.g. VW Golf IV, Lupo, New Beetle, Passat (B5) 97-onwards, Polo 99-onwards.

In order for the driver’s air bag housing to be removed, it is necessary to loosen the retaining bridge with the **KL-0242-10** Airbag Removal Tool Set.

KL-0240-1 KL-0240-2



VW- Audi, Seat, Škoda



The Problem:
Splined sleeve

KL-0240-1 Steering Wheel Sleeve Puller VW

On **VW Golf II, Jetta, Golf III, Vento, Polo, Passat, etc.** from ‘88 onwards it is necessary to remove a splined sleeve after removal of the steering-wheel. The precise fit of this puller ensures a quick and easy removal of the sleeve without the risk of damage to the steering-column splines.

Chuck range: ..... 27 - 30 mm

KL-0240-2 Drift for knocking out steering sleeves

The Drift **KL-0240-2** made of brass allows the sleeves on the steering-column to be separated without risk of damage.

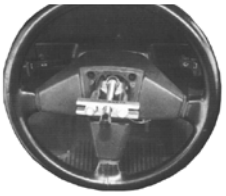
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KL-0153-1



Opel, Ford



KL-0153-1 Steering Wheel Puller

For **Opel, Ford etc.**

Steering wheels which are stuck on the steering column may be pulled off cleanly, quickly and without damage to the steering column and steering wheel with the puller **KL-0153-1**. The different length of the puller arms and the longitudinal groove in the yoke allows an almost universal application of this puller tool.

Adjusting Range: ..... max. 90 mm Height:.....135 mm

Advantages:

- Universal application.
- No damage to the steering wheel during pulling action.

KL-0153-2

Mercedes





KL-0153-2 Steering Wheel Puller

Suitable for **Mercedes** Transporters and trucks.

Allows easy removal of stubborn steering wheels without risk of damage to either steering column splines or the steering wheel.

Adjusting Range: .....40 - 88 mm Screws: .... M10 x 60

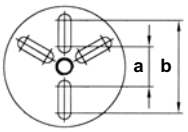
Advantages of the puller tool:

- Due to the longitudinal grooves in the puller plate, this puller can be universally used as a two arm puller as well as a three arm puller.
- Flanged nut of the spindle prevents a slip off of the operating tool.
- No damage to the steering wheel during extraction.

KL-0153-5 K

Universal





a = Ø 32 mm
b = Ø 90 mm

KL-0153-5 K Puller Set

Puller Set for Steering Wheels, Sprockets, Pulleys and Shafts, etc.

Range: ..... Ø 32 - Ø 90 mm

Consists of:

Puller Disc: ..... Ø-110mm (2+3 Hole mounting) with Spindle.

Allen®-bolt:	M8x1,25 x 100	3 Pcs.
Allen®-bolt:	M10x1,25 x 100	3 Pcs.
◉ Hex bolt:	M8x1,25 x 80	3 Pcs.
◉ Hex bolt:	M10x1,5 x 50	3 Pcs.
◉ Hex bolt:	1/4" UNF x 75	2 Pcs.
◉ Hex bolt:	5/16" UNF x 90	2 Pcs.
◉ Hex bolt:	5/16" UNC x 50	3 Pcs.
◉ Hex bolt:	5/16" UNC x 110	3 Pcs.
◉ Hex bolt:	3/8" UNF x 50	3 Pcs.
◉ Hex bolt:	3/8" UNC x 100	3 Pcs.
Washers:	1/4"x19 2 Pcs.; 5/16"x18 3 Pcs.; 3/8"x20	3 Pcs.

The Set is delivered in Plastic Storage Case.

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KL-0284-8



VW-Audi



KL-0284-81



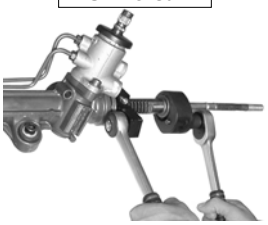
VW-Audi



KL-0167-20

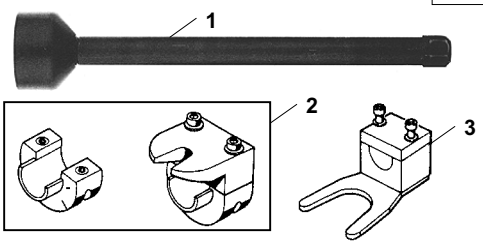


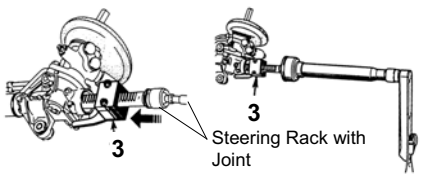
Universal



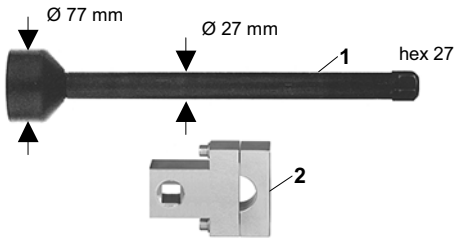
KL-0167-10

Renault



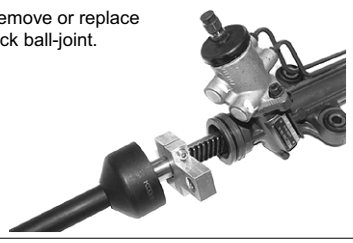


KL-0167-11



Toyota, ZF

Remove or replace rack ball-joint.



KL-0284-8 Reaction Wrench

For locking the pulley on the steering-pump on **e.g. VW Polo, Golf, Passat and Audi A4**. Length:..... 250 mm

Advantages:

- The ½“ ☐ drive in the tools handle enables an extension of the tool by e.g. a ratchet.
- Easy loosening of stubborn bolts on the steering-pump pulley.

KL-0284-81 Reaction Wrench

As **KL-0284-8**
but especially suitable for **VW Passat (’97 onwards) and Audi A4 (’99 onwards) etc.**

KL-0167-20 Steering Rack eccentric Socket Ø 33 - 42 mm

This tool allows quick and easy replacement of the inner ball-joint on the Steering Rack.

Removal of the Rack from the bulkhead is not necessary.

For Ball-Joints with Ø 33 - 42 mm. Drive: .....½“ ☐

KL-0167-10 Mounting tool set

Suitable for Renault-Vehicles.

The Tool Set **KL-0167-10** allows a quick and easy removal and replacement of the inner steering ball joint without the need to dismantle the steering rack from the bulkhead.
Drive head range Ø 35-39 mm.

Time saved: 4 hours (approx).

Mounting instructions:

Fit the appropriate locking tool (2 or 3) to the exposed steering rack. Using the special socket (1) undo the ball joint of the rack. Simultaneous locking the rack using the chosen locking tool. After the removal of the ball joint it is now possible to replace the sealing ring in the rack housing.

Specification:

Pos.	Part No.	Description
	KL-0167-10	**Mounting Tool Set (Weight 2,3 kg)**
	consists of:	
1	KL-0167-115	Special socket (for Ø 35-39 mm; Length 410 mm)
2+3	KL-0167-131	Locking Tool Set

Accessories:

Pos.	Part No.	Description
	KL-0167-131	**Locking Tool Set**
	consists of:	
2	KL-0167-1314	Locking Tool Clio, Twingo
3	KL-0167-1313	Locking Tool Clio 2, Laguna, R19, Safrane

KL-0167-11 Mounting tool set

Similar as **KL-0167-10.**

Applicable for power steering systems Type 7832 (974 115), mounted for example in Toyota vehicles.

Specification:

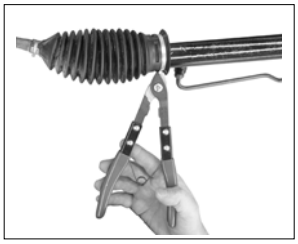
Pos.	Part No.	Description
	KL-0167-11	**Assembly Tool Set (Weight: 2.1 kg)**
	consists of:	
1	KL-0167-115	Special socket (for Ø 35-39 mm; Length 410 mm)
2	KL-0167-141	Locking tool (for racks - Ø to 25 mm)

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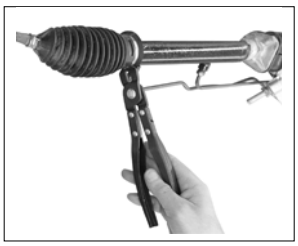
KL-0121-83 Universal





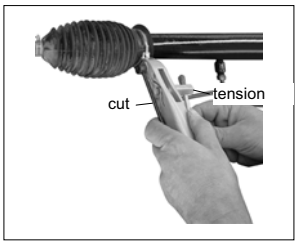
KL-0121-81 Universal



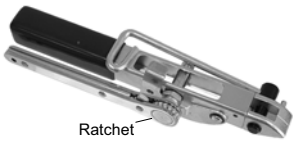


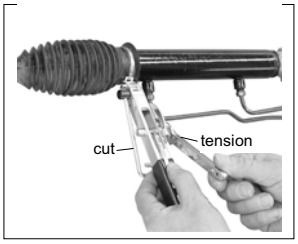
KL-0121-85 Universal





KL-0121-86 Universal





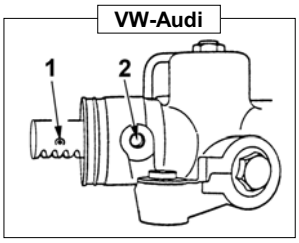
KL-0322-6 Mercedes



KL-0241-1



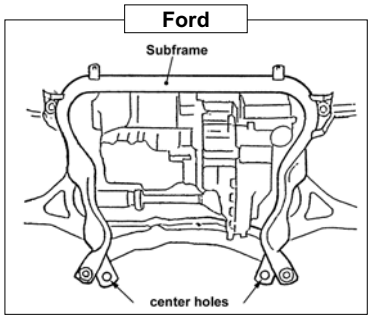
VW-Audi



KL-0690-1



Ford



KL-0121-83 Hose Band Cutter straight

To open or cut „earless“ Hose-Bands on CV-Joints, Drive-Shafts, Radiator Hoses, Fuel-lines, etc.

Universal application.

KL-0121-84 Hose Band Cutter angled (not ill.)

As **KL-0121-83** but with angled head for inaccessible locations.

KL-0121-81 Hose Band Pliers

Works on „earless“ Hose-Bands on axle collars, water and fuel hoses.

Universal Application.

Specially suitable for **VW-Audi etc.**

Length.....230 mm Weight: .....340 g

KL-0121-85 Hose Band Tool

Suitable for Endless Hose-Bands (e.g. Bandimax) up to 9,5 mm, example drive-shaft gaiters, etc.

For quick and easy tensioning and cutting endless Hose-Bands.

Length.....160 mm Weight: .....450 g

KL-0121-86 Hose Band Tool with Rachet

Suitable for Endless Hose-Bands (e.g. Bandimax) up to 9,5 mm, example drive-shaft gaiters, etc.

For quick and easy tensioning and cutting endless Hose-Bands.

Lenght.....200 mm Weight: .....360 g

KL-0322-6 Retention Bolt Set

With conical tip for middle positioning of the steering while adjusting the steering geometry.

Application: Mercedes W107, W114, W115, W116, W123, W126.

KL-0241-1 Locking screw

Applicable for Audi A4, A6, VW Passat from ’97 upwards etc.

Mounting instruction:

Move the steering rack as far as possible so that Pos. 1 and Pos. 2 are level. Then screw in the retention bolt **KL-0241-1**. The rack is now in the central position and therefore it is possible to find the basic adjustment of the right and left handle bar.

KL-0690-1 Location Pin Set (2 Pcs.)

Application: Ford Mondeo and Fiesta from ‘96 upwards

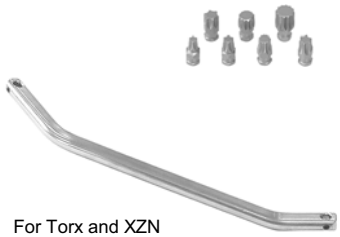
Overhaul and replacement of engine, transmission, clutch, etc. often require the removal of the front sub-frame.

When the sub-frame has been removed for work on the above items it is important to ensure that on re-assembly it is aligned accurately with the chassis to maintain alignment of the wheels. Steering problems and tyre wear will result if the correct geometry is not achieved.

The Location Pin Set **KL-0690-1** ensures that accurate alignment is achieved.

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KL-0270-3 B

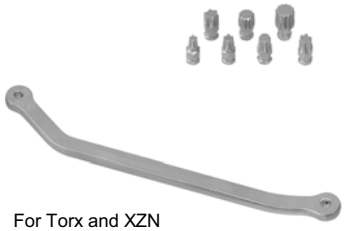


Mercedes

For Torx and XZN



KL-0270-31 B



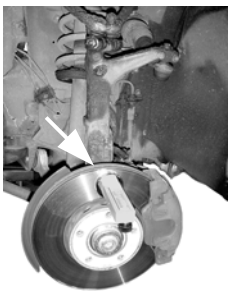
Mercedes

For Torx and XZN

KL-0168-90 K



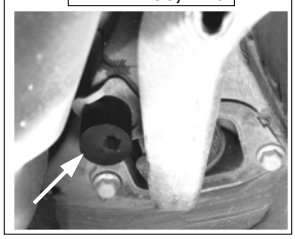
Universal



KL-0540-1



BMW E36, E46



KL-0270-3 B Wrench with 7 Bit Inserts

Suitable for *Door Hinge Bolts*
e.g. Audi 97 - onwards; Renault Safrane / Laguna; Seat Arosa / Cordoba / Ibiza; VW Golf III / Golf IV / Passat 97-onwards / Polo / Vento; Škoda etc.

To quickly and easily loosen and tighten the bolts in door hinges.

Suitable for *Mercedes Toe Adjustment*
e.g. 190 Series (W201), C-Class (W202), C-Class (W203), 200 - 300 E (W124), E-Class (W210), S-Class (W220)

To adjust the Toe on the rear axle. Due to its special form, this tool allows easy and precise adjustments to the inaccessible adjustment bolts.

Technical Data:

Size 5/16“-Drive Bit-Inserts:
T30, T40, T45, T50, XZN-8, XZN-10, XZN-12

Length: ..... 310 mm Weight: ..... 430 g
Bit-Drive: ..... 5/16“ ⬢

Accessories: KL-0270-303 Bit-Inserts Set 7 pcs.

Consists of 5/16“ Drive Bit-Inserts size:
T30, T40, T45, T50, XZN-M8, XZN-M10, XZN-M12

KL-0270-31 B Wrench with 7 Bit Inserts

As **KL-0270-3B**, however in forged design.

Suitable for *Mercedes ToeAdjustment* e.g.
190 Series (W201), C-Class (W202), C-Class (W203), 200 - 300 E (W124), E-Class (W210), S-Class (W220)

Due to its special form, this tool allows easy and precise adjustments to the inaccessible adjustment bolts.

Technical Data:

Size 5/16“Drive Bit-Inserts:
T30, T40, T45, T50, XZN-8, XZN-10, XZN-12

Length: ..... 320 mm Weight: ..... 520 g
Bit-Drive: ..... 5/16“ ⬢

Accessories: KL-0270-303 Bit-Inserts Set 7 pcs.

Consists of 5/16” Bit-Inserts size:
T30, T40, T45, T50, XZN-M8, XZN-M10, XZN-M12

KL-0168-90 K Camber Gauge (in Case)

The **KL-0168-90 K** Camber Gauge with magnetic foot allows the existing camber angle to be memorised before the suspension is dismantled. After re-assembly the camber can be set to the previous setting without time-consuming geometry check. Weight: 500g

KL-0540-1 Eccentric Socket

To adjust the toe-on at the rear axle on **BMW E36, E46**.

Therefore the bolts on the lower control arm have to be loosened. Then the eccentric socket has to be set on the control arm bolt. By turning the eccentric socket around the control arm gets to the right alignment position.

Drive: ..... 1/2“

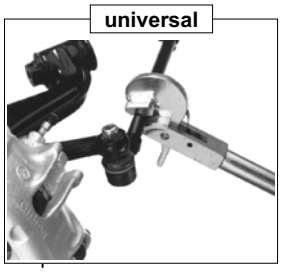
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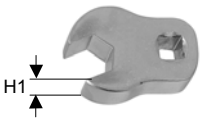
KL-0169-1

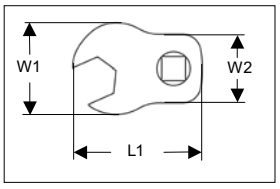






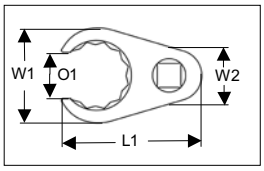
KL-0169-318 / KL-0169-321





KL-4072-301

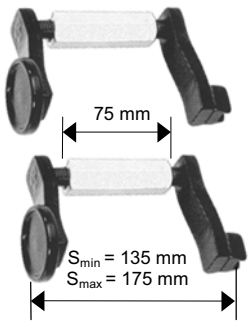


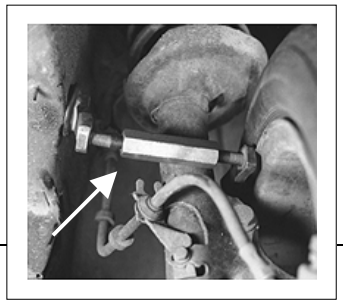


Note: Further Sockets and Track Rod Tools see chapter 11.

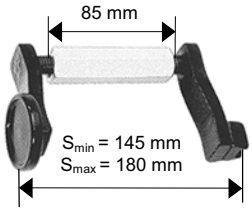
KL-0168-1

VW-Audi, Seat, Škoda





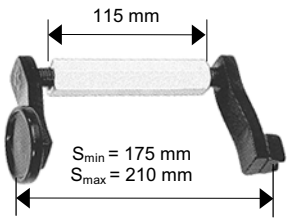
KL-0168-2



VW-Audi, Seat, Škoda



KL-0168-3



Chrysler Voyager etc.



KL-0169-1 Track-Rod Adjusting Tool

For loosening and adjusting stubborn Track-Rods. The broad serrated jaws prevent damage to the Track-Rod.
Application: Track-Rods Ø 14-23 mm

Accessories:

KL-0169-1001 **Adaptor for Track-Rods**
from Ø 11 mm upwards.

KL-0169-318 Open Ended Spanner Socket

Suitable for Steering Rack Opel Vectra B, etc.
Extra-strong version, ideal for unscrewing or turning track rods.
Drive:..... 1/2" ☐

Part No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width2 [W2]	Weight [g]
KL-0169-318	18	70 mm	20 mm	45,5 mm	32 mm	300

KL-0169-321 Open Ended Spanner Socket

As **KL-0169-318**, but with hex 21 mm **e.g. suitable for Steering Rack Opel Sintra**, etc. Drive:..... 1/2" ☐

Part No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width2 [W2]	Weight [g]
KL-0169-321	21	70 mm	20 mm	49,5 mm	37 mm	330

KL-4072-301 Open Ended Ring Spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened. Drive:..... 1/2" ☐

Part-No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	15,5 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

KL-0168-1 Alignment Tool Set (2 Pcs.)

With extra strong spindle (M14).

Application: VW Golf, Jetta, Seat Toledo, etc.

This pair of pressure fixtures allows a single technician working alone to adjust and set camber angles. Not only quick and easy, but eliminates the need for additional labour.
The tool is placed between the strut or bodywork and the wheel-rim and camber may be adjusted by rotating the hexagonal drive.

Technical Data:

Spin width $_{min}$:.....135 mm Spin width $_{max}$:.....175 mm

KL-0168-2 Alignment Tool Set (2 Pcs.)

With extra strong spindle (M14).
As **KL-0168-1** but for **VW Polo** from '95, **Seat Cordoba etc.**

Technical Data:

Spin width $_{min}$:.....155 mm Spin width $_{max}$:.....180 mm

KL-0168-3 Alignment Tool Set (2 Pcs.)

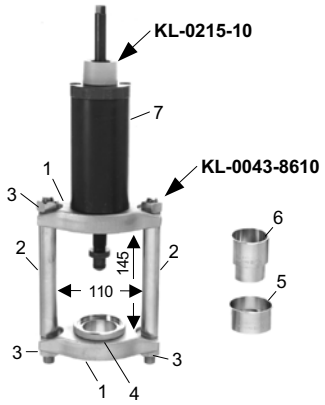
With extra strong spindle (M14).
As **KL-0168-1** but for **Chrysler Voyager etc.**

Technical Data:

Spin width $_{min}$:.....175 mm Spin width $_{max}$:.....210 mm

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KL-0043-861

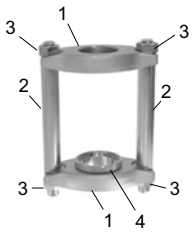


VW T4



Note: Sleeve Pos.5 and 6 can be used reversible.

KL-0043-8610




Ball Joint

Further informations to these and other Hydraulic Press Tools see Chapter 4.

KL-0043-8611



Note: Conversion items to press frame **KL-0043-8510**

KL-0043-8502-P



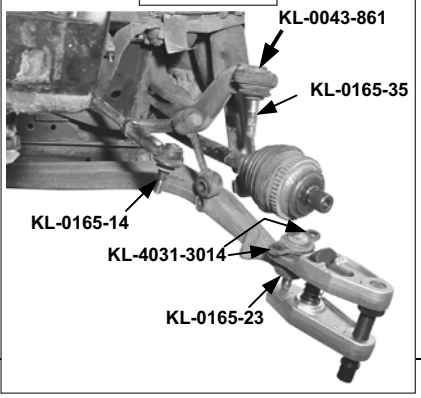
KL-0043-8501-A



KL-0043-8204



VW T4



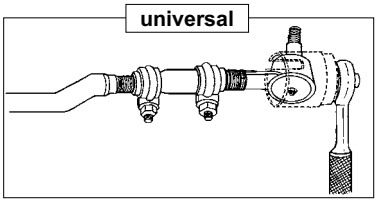
KL-4031-3014



KL-0169-50



universal



KL-0043-861 Press Tool with hydr. Cylinder (17t.)

Suitable for VW T4 front axle upper ball-joint.

The upper ball-joint may be removed and replaced within 30 minutes using the new Press Tool **KL-0043-861**, without the need to dismantle the upper wishbone.

Advantages

- Large time savings (2 - 3 hours).
- Simple and precise to use.
- High safety.

Specification:

Pos.	Part No:	Description	Qty.
	KL-0043-861	**Hydraulic Press Tool 17t. VW-T4**	**1**
	consists of:		
	KL-0043-860	Press Tool VW-T4	1
7	KL-0215-10	Hydraulic Cylinder with Spindle	1

	KL-0043-860	**Press Tool VW-T4 (not illustrated)**	**1**
	consists of:		
	KL-0043-8610	Press Frame	1
5	KL-0043-8661	Lower Sleeve VW-T4	1
6	KL-0043-8662	Upper Sleeve VW-T4	1

KL-0043-8610 Press Frame

consists of:

Pos.	Part No:	Description	Qty.
1	KL-0043-8501-C	Base Plate 2¼"-14 UNS	2
2	KL-0215-4004	Frame Rods	2
3	KL-0049-3004	Hex Nut M18	4
4	KL-0043-8601	Adaptor 2¼"-14UNS to Ø60	1

KL-0043-8611 Supplement Kit VW T4 for KL-0215-4…

The Bush Tool **KL-0215-4... Series** may also be used to replace the upper ball-joint on VW T4 by using the Supplementary Kit **KL-0043-8611**.

consists of:

Pos.	Part No:	Description	Qty.
1	KL-0043-8501-C	Base Plate 2¼"-14 UNS	1
4	KL-0043-8601	Adaptor 2¼"-14UNS to Ø60	1
5	KL-0043-8661	Lower Sleeve VW-T4	1
6	KL-0043-8662	Upper Sleeve VW-T4	1

Note: Component parts required to convert the press frame to *KL-0043-8510*

The Press Tool **KL-0043-861** can be converted to press frame **KL-0043-8510,** by using the base plate M42 x 2 **KL-0043-8501-A**, the adaptor from M42x2 to Ø30 **KL-0043-8204** and the pair of frame rods M18 with hex. nuts **KL-0043-8502-P**.

(⇒ KL-0043-8510 see Page 4-14)

KL-4031-3014 Special Socket Insert XZN M14

For removal of the upper ball-joint on **VW T4 Transporters.**

Length: ..... 60 mm
Weight: ..... 110 g
Drive: ..... ½"

KL-0169-50 Tie Rod End Socket

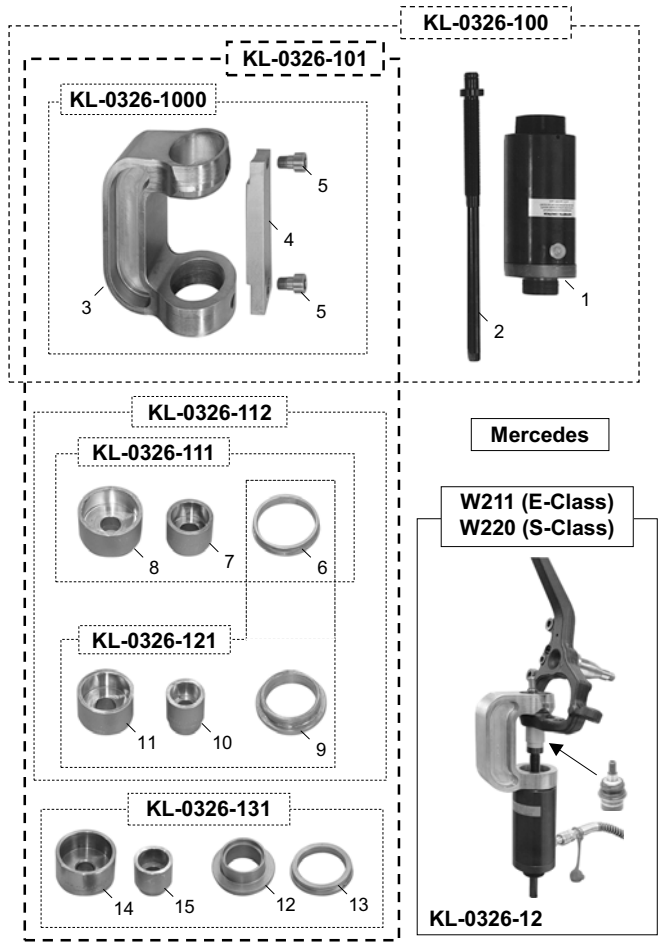
This tool is used to replace worn out tie rod ends. After separating the ball joint from steering knuckle, slip tool over end of worn tie rod and remove.

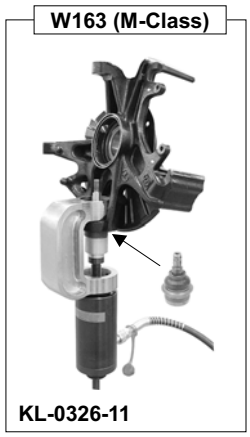
U-opening:.... 34.9 × 19 mm
Drive: ..... 1/2"
Weight: ..... 490 g
Inner-Ø: ..... 23.8 mm
Length: ..... 57 mm

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2

KL-0326-10







Note: An hydraulic pump will be required to drive the **KL-0040-2500**. Further informations about hydraulic tools see Chapter 4.

KL-0326-20





KL-0326-10 Press Tool with hydr. Cylinder (17 t.) (German Utility Model)

Suitable for Mercedes W163 (M-Class) Front Axle / Rear Axle and W211 (E-Class), W220 (S-Class), W124, W201 Front Axle.
The support joint can be pressed into and out of the lower wishbone quickly and easily with the **KL-0326-10** hydraulic press tool kit. The support joint can often be removed or installed from the vehicle in only a few minutes, without removing the wishbone.

Specification:

Pos.	Part-No.	Description	Qty.
	KL-0326-10	**Press Tool with Hydraulic. Cylinder. 17t.**	**1**
	consists of:		
	KL-0326-100	Hydraulic Press Frame	1
	KL-0326-112	Sleeve Set W163, W211, W220	1
	KL-0326-131	Sleeve Set W124, W201	1
	KL-0326-100	**Hydraulic Press Frame**	**1**
	consists of:		
1	KL-0040-2500	Hydraulic Cylinder 17 t.	1
2	KL-0040-2510	Spindle	1
	KL-0326-1000	Press Frame (without Drive and Sleeves)	1
	KL-0326-1000	**Press Frame (without Drive and Sleeves)**	**1**
	consists of:		
3	KL-0326-1001	Press Frame	1
4	KL-0326-1002	Screwable Ledge	1
5	KL-0326-1003	Cylinder Screw M12x20	2
	KL-0326-112	**Sleeve Set W163, W211, W220**	**1**
	consists of:		
6	KL-0326-1111	Support Ring 1	1
7	KL-0043-8568	Press/Support Sleeve short 42/34	1
8	KL-0043-8576	Press/Support Sleeve short 58/50	1
9	KL-0326-1211	Support Ring 2	1
10	KL-0043-8564	Press/Support Sleeve short 34/26	1
11	KL-0043-8572	Press/Support Sleeve short 50/42	1
	KL-0326-131	**Sleeve Set W124, W201 (Front Axle)**	**1**
	consists of:		
12	KL-0326-1311	Press Ring	1
13	KL-0326-1312	Support Ring	1
14	KL-0326-1313	Support Ring	1
15	KL-0043-8566	Press- / Support Sleeve short 38/30	1

KL-0326-101 Hydraulic-Press Tool Kit without Drive

As **KL-0326-10** but without the Hydraulic Cylinder **KL-0040-2500** and the Spindle **KL-0040-2510**.

KL-0326-11 Press Tool with hydr. Cylinder (17 t.) (not ill.)

As **KL-0326-10,** but specially for **W163 (M-Class).**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-111	Sleeve Set W163	1

KL-0326-12 Press Tool with hydr. Cylinder (17 t.) (not ill.)

As **KL-0326-10,** but specially for **W211 (E-Class), W220 (S-Class).**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-121	Sleeve Set W211, W220	1

KL-0326-13 Press Tool with hydr. Cylinder (17 t.) (not ill.)

As **KL-0326-10,** but specially for **W124, W201.**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-131	Sleeve Set W124, W201	1

KL-0326-20 Toothed Socket

For tightening the support joint retaining nut on the **Mercedes W163 (M-Class)** steering knuckle.

Technical Data

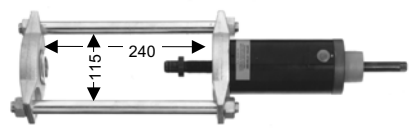
Diameter - outer: .....63,0 mm
Tooth Width: .....7,5 mm
Diameter - inner: .....52,5 mm
Weight: .....0,50 kg

Note: Ball Joint Extractor to remove Ball Joint connections see page 2-18 – 2-28.

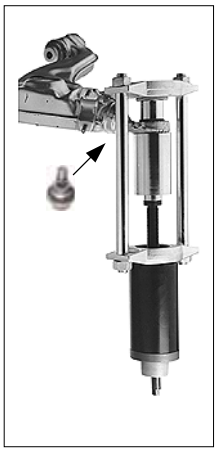
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KL-0043-854

Mercedes
W124, W129, W201

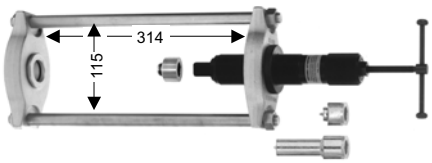




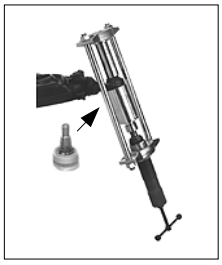


KL-0043-822

Mercedes
W124, W129, W201

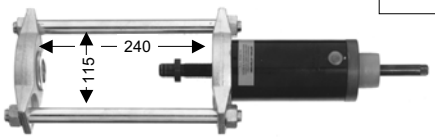




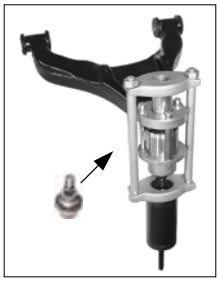


KL-0043-855 C

Mercedes Sprinter
VW LT







KL-0043-854 Press Tool with hydr. Cyl. (17 t.)

For Mercedes W124, W129 and W201.

To renew suspension joints on the vehicle without dismantling the wishbone.

consists of:

Part No.	Description
KL-0040-2500	Hydr. Cylinder
KL-0040-2510	Press Spindle
KL-0043-8510	Press Frame Short
KL-0043-8592	Press/Support Tube Set

KL-0043-8592 Press/Support Tube Set

consists of:

Part No:	Description	Qty.
KL-0043-8565	Press/Support Tube	1
KL-0043-8575	Press/Support Tube	1
KL-0043-8277	Press/Support Tube	1

KL-0043-822 Press Tool Set with hydr. Spindle

For **Mercedes W124, W129 und W201.**

To renew suspension joints on the vehicle without dismantling the wishbone.

consists of:

Part No.	Description
KL-0045-70	Hydr. Spindle12 t
KL-0043-8200	Press Frame long
KL-0043-8292	Press/Support Tube Set

KL-0043-8292 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8265	Press/Support Tube
KL-0043-8275	Press/Support Tube
KL-0043-8277	Press/Support Tube

KL-0043-855 C Press Tool with hydr. Cyl. (17 t.) (Patented)

Suitable for: Mercedes Sprinter 1995-onwards and VW LT 1996-onwards.

The insertion and extraction of the ball-joint on vehicles is with the special manufactured press and support tubes is in a few minutes done. ⇒ High time saving.

consists of:

Part No:	Description
KL-0043-8510	Press Frame Short
KL-0040-2500	Hydraulic Cylinder (17t)
KL-0040-2510	Press Spindle
KL-0043-8591C	Press/Support Tube

KL-0043-8591 C Press/Support Tube Set

consists of:

Part No:	Description
KL-0043-8236-1	Support Tube (i)
KL-0043-8236-2	Support Tube (II)
KL-0043-8236-3	Tension Ring (III)
KL-0043-8236-4	Allen Bolt (IV) 3 pcs.
KL-0043-8236-5	Distance Tube (V)
KL-0043-8531	Press Tube (VI)
KL-0043-8279	Press Tube (VII)
KL-0043-8578	Press/Support Tube (VIII)

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KL-0626-10

Ford Transit

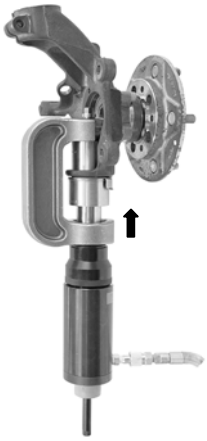




KL-0626-100

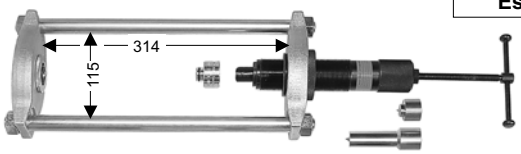


Ball Joint insertion



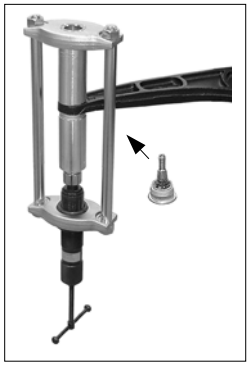
KL-0043-826

Renault Laguna
Espace III

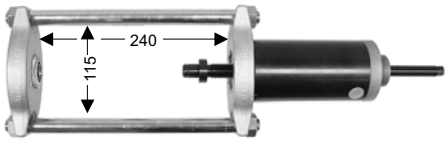


KL-0043-8297



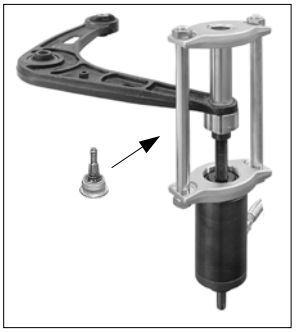


KL-0043-840



KL-0043-8596





KL-0626-10 Press Tool with hydr. Cylinder (17t.) (German Utility Model)

Suitable for Ford Transit onwards 2002 front axle.

The support joint can be pressed out of or into the wheel bearing housing quickly and without difficulty, using Press Tool **KL-0626-10**. The support joint can be removed from or installed on the vehicle in just a few minutes, without the wheel bearing housing having to be removed.

consists of:

Part No.	Description
KL-0626-100	**Press Tool without** Hydraulic Cylinder
KL-0040-2500	Hydraulic Cylinder 17t.
KL-0040-2510	Press Spindle

KL-0626-100 Press Tool without Hydr. Cyl.

consists of:

Part No.	Description
KL-0626-1001	Press Frame
KL-0626-1002	Coil screw
KL-0174-559	Adaptor 2 1/4"-14UNS to 2 1/4"-14UNS
KL-0626-1003	Press Tube (removal) Ø: 38mm
KL-0626-1004	Support Tube (removal) Ø: 66,5mm
KL-0626-1005	Support Tube (replacement) Ø: 54mm
KL-0626-1006	Press Tube (replacement) Ø: 56mm

KL-0043-826 Press Tool Set with hydr. Spindle (12 t.)

Suitable for Renault Laguna und Espace III

The **KL-0043-826** allows quick, easy and safe extraction and replacement of the Ball-Joint in the lower front wishbone. Replacement of the Ball-Joint is performed within a few minutes without the need to remove the wishbone from the vehicle.

consists of:

Part No.	Description
KL-0045-70	Hydr. Spindle12 t
KL-0043-8200	Press Frame long
KL-0043-8297	Press/Support Tube Set

KL-0043-8297 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8232	Press Tube
KL-0043-8264	Press/Support Tube
KL-0043-8271	Press/Support Tube
KL-0043-8274	Press/Support Tube

KL-0043-840 Press Tool with hydr. Cylinder (17t.)

Suitable for Renault Laguna und Espace III

The **KL-0043-840** allows quick, easy and safe extraction and replacement of the Ball-Joint in the lower front wishbone. Replacement of the Ball-Joint is performed within a few minutes without the need to remove the wishbone from the vehicle.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2510	Press Spindle
KL-0043-8510	Press Frame Short
KL-0043-8596	Press/Support Tube

KL-0043-8596 Press/Support Tube Set

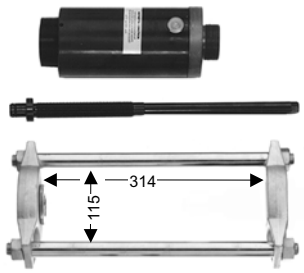
consists of:

Part No.	Description
KL-0043-8232	Press Tube for Renault Laguna
KL-0043-8264	Press/Support Tube 34 mm
KL-0043-8571	Press/Support Tube short 48/40
KL-0043-8574	Press/Support Tube short 54/46

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KL-0043-829

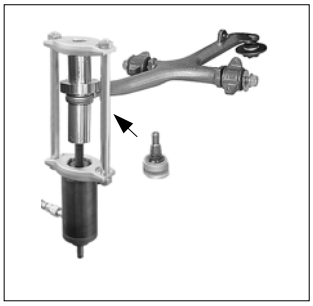
Opel/Vauxhall, Renault



KL-0043-8298

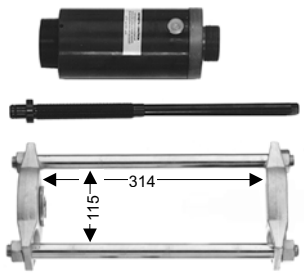


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KL-0043-810

Opel/Vauxhall, Renault



KL-0043-8101





KL-0043-829 Press Tool
with hydr. Cylinder (17 t.)

Suitable for Renault Master II ('98 onwards) and Movano I ('98 onwards).

The Press Tool **KL-0043-829** allows quick, easy and safe removal and replacement of the **Ball-Joint in the upper front wishbone**. Stubborn and corroded Ball-Joints may easily be replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic-Cylinder
KL-0040-2510	Press Spindle
KL-0043-8200	Press Frame long
KL-0043-8298	Press/Support Tube Set

KL-0043-8298 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8269	Press/Support Tube
KL-0043-8233	Support Tube
KL-0043-8276	Press/Support Tube
KL-0043-8279	Press/Support Tube

KL-0043-810 Press Tool
with hydr. Cylinder (17 t.)

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards).

The Press Tool **KL-0043-810** allows quick, easy and safe removal and replacement of the **Ball-Joint in the lower front wishbone.** Stubborn and corroded Ball-Joints may easily be replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description
KL-0040-2500	Hydr. Cylinder 17 t.
KL-0040-2510	Pressing Spindle
KL-0043-8200	Press Frame
KL-0043-8101	Press/Support Tube Set

KL-0043-8101 Press/Support Tube Set

consists of:

Part No..	Description
KL-0043-8237	Press/Support Tube
KL-0043-8238	Press/Support Tube
KL-0043-8274	Press/Support Tube
KL-0043-8276	Press/Support Tube

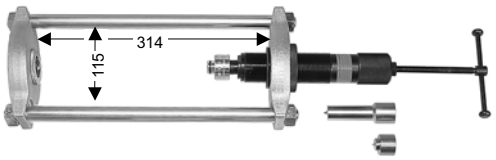
Note: An hydraulic pump (see Chapter 4) will be required to drive the **KL-0040-2500.**

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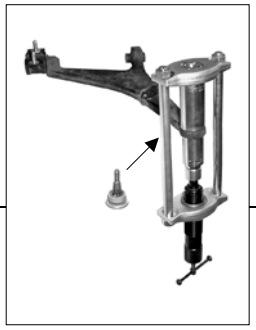
KL-0043-828

Citroën, Peugeot

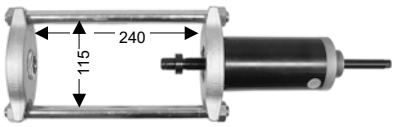


KL-0043-8293





KL-0043-858



KL-0043-8593



Citroën, Peugeot

KL-1340-10



Citroën, Peugeot



KL-0043-8296



BMW E30



KL-0043-828 Press Tool Set
with hydr. Spindle (12 t.)

Suitable for Citroën AX, Saxo und Peugeot 106.

The Press Tool Set **KL-0043-828** allows quick and easy removal and replacement of the bottom ball-joint in the wishbone. Removal and replacement of the ball-joint can be performed on the vehicle within a few minutes without the need to dismantle the wishbone from the car.
Time-saving 2 hours plus.

consists of:

Part No.	Description	Part No.	Description
KL-0045-70	Hydr. Spindle12 t	KL-0043-8293	Press/Support Tube Set
KL-0043-8200	Press Frame long		

KL-0043-8293 Press/Support Tube Set

consists of:

Part No.	Description	Part No.	Description
KL-0043-8234	Press/Support Tube	KL-0043-8268	Press/Support Tube
KL-0043-8262	Press/Support Tube	KL-0043-8272	Press/Support Tube

KL-0043-858 Press Tool with hydraulic Cyl. (17 t.)

Suitable for Citroën AX, Saxo und Peugeot 106.

The Press Tool Set **KL-0043-858** allows quick and easy removal and replacement of the bottom ball-joint in the wishbone. Removal and replacement of the ball-joint can be performed on the vehicle within a few minutes without the need to dismantle the wishbone from the car.
Time-saving 2 hours plus.

consists of:

Part No.	Description	Part No.	Description
KL-0040-2500	Hydraulic-Cylinder (17t)	KL-0043-8510	Press Frame Short
KL-0040-2510	Press Spindle	KL-0043-8593	Press/Support Tube Set

KL-0043-8593 Press/Support Tube Set

consists of:

Part No.	Description	Part No.	Description
KL-0043-8534	Press/Support Tube	KL-0043-8568	Press/Support Tube
KL-0043-8262	Press/Support Tube	KL-0043-8272	Press/Support Tube

KL-1340-10 Toothed Socket

For removal and replacement of the bottom ball joint on:
Citroën BX ('82 to '94), Peugeot 305 ('82 to '90), Peugeot 405 ('87 onwards) etc.

Technical Data

Diameter - outer..... 52.0 mm
Tooth Width:..... 5.5 mm
Diameter - inner:...42.5 mm
Weight: .....0.52 kg

KL-0043-8296 Press/Support Tube Set long

Suitable for BMW E30 front lower wishbone.

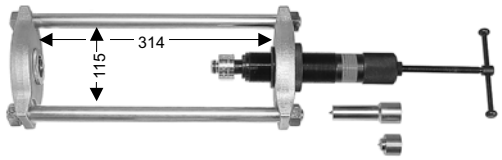
The Press/Support Tube Set **KL-0040-8296** allows quick and easy removal and replacement of the ball-joint if the Press Frame **KL-0043-8200** and Hydraulic Spindle **KL-0045-70** is already available.

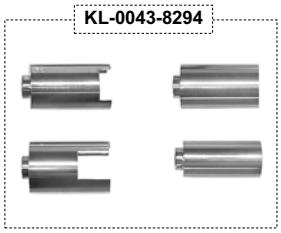
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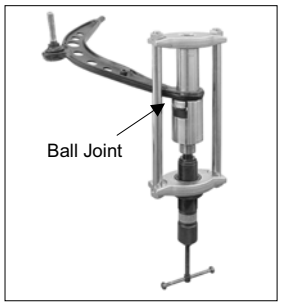
Part No.	Description	Part No.	Description
KL-0043-8267	Press/Support Tube	KL-0043-8273	Press/Support Tube
KL-0043-8272	Press/SupportTube	KL-0043-8276	Press/Support Tube

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KL-0043-823





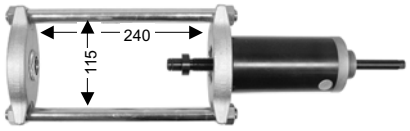


Accessories: KL-0043-8231





KL-0043-859







KL-0043-823 Press Tool Set
with hydr. Spindle (12 t.)

Suitable for BMW E36 front lower wishbone.

Outer ball-joints on the lower front wishbone may be quickly and cleanly replaced using the tool **KL-0043-823**.

Replacement of the outer ball-joint can be carried out within minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0045-70	Hydr.-Spindle 12 t
KL-0043-8200	Press Frame long
KL-0043-8294	Press/Support tube Set

KL-0043-8294 Press/Support Tube Set long

Suitable for BMW E36 front lower wishbone.

KL-0043-8294 offers the same capability as **KL-0043-823** to quickly and easily replace ball-joints if the Press Frame **KL-0043-8200** and Hydraulic Spindle 12 t. **KL-0045-70** is already available.

consists of:

Part No.	Description
KL-0043-8288-1	Press Tube E36
KL-0043-8289-1	Support Tube E36
KL-0043-8271	Press/Support Tube
KL-0043-8276	Support Tube

Accessories: KL-0043-8231 Press Tube E36

Middle ball-joints on the lower front wishbone may be quickly and cleanly pressed in/out using the tool **KL-0043-823** in association with the press tube **KL-0043-8231**.

KL-0043-859 Press Tool with hydr. Cyl. (17 t.)

Suitable for BMW E36 front lower wishbone.

Outer ball-joints on the lower front wishbone may be quickly and cleanly replaced using the tool **KL-0043-859**.

Replacement of the outer ball-joint can be carried out within minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic-Cylinder 17 t
KL-0040-2510	Press Spindle
KL-0043-8510	Press Frame short
KL-0043-8594	Press/Support Tube Set

KL-0043-8594 Press/Support Tube Set

Suitable for BMW E36 front lower wishbone.

KL-0043-8594 offers the same capability as **KL-0043-859** to quickly and easily replace ball-joints if the Press Frame **KL-0043-8510**, the Press Spindle **KL-0040-2510** and the Hydraulic Cylinder 17 t. **KL-0040-2500** is already available.

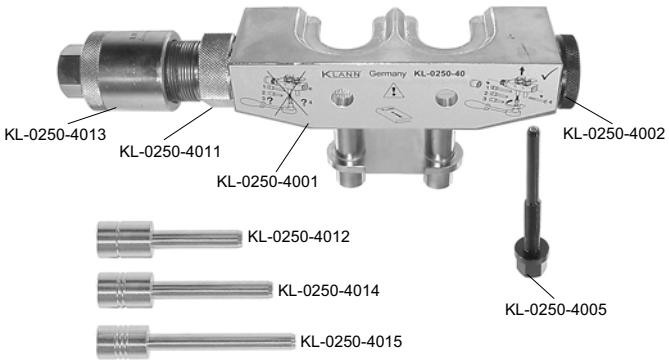
consists of:

Part No.	Description
KL-0043-8288-1	Press Tube E36
KL-0043-8289-1	Support Tube E36
KL-0043-8571	Press/Support Tube
KL-0043-8576	Press/Support Tube

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2

Fig. 1: **KL-0250-40**



Accessory: KL-0250-402 Supplement- Pressure Drift Set



Accessory: KL-0250-403 T-Handle Puller



Fig. 2: Extractor with pressure unit assembled (Pos.1).

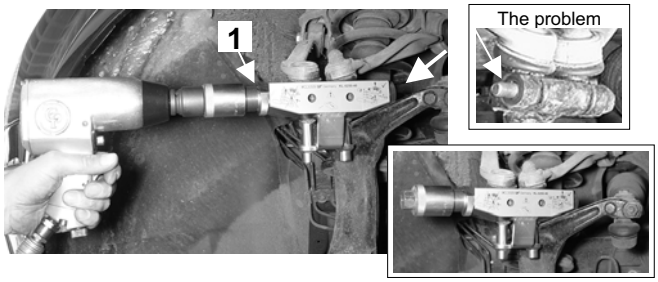


Fig. 3: Extraction of retaining bolt.

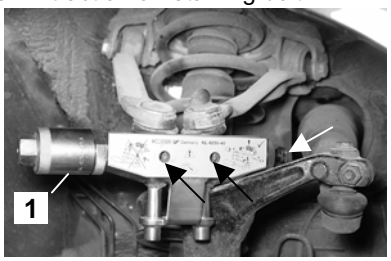
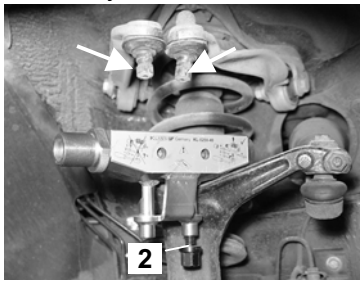


Fig. 4: Both Ball-joints extracted.



KL-0250-40 Extractor (Pat.) for Clamping Bolt and Ball Joints Audi A4 (up to '2000) / VW Passat Front Axle (up to '2005)

Extraction of the upper wishbone clamping bolt and the ball joints.

Dismantling the upper wishbone clamping bolt and both upper ball-joints from the upper wishbone has presented the mechanic with a serious problem, especially when the components are corroded.
Until now the only method of extraction was using a hammer and drift, which is not only inefficient in terms of time, but also carries the very real risk of damage to the suspension.

The Extractor KL-0250-40 allows quick, easy and safe extraction of the clamping bolt and both upper ball-joints. The tool functions on both left hand and right hand suspension assemblies.

Contents (KL-0250-40)**:**

Part No.	Description	Qty.
KL-0250-4013	Nut	1
KL-0250-4011	Housing	1
KL-0250-4001	Main body	1
KL-0250-4002	Thread adapter (with large drilling)	1
KL-0250-4005	Pressure screw M10x1,25x95 mm	1
KL-0250-4012	Pressure drift I (Length 78 mm)	1
KL-0250-4014	Pressure drift II (Length 98 mm)	1
KL-0250-4015	Pressure drift III (Length 118 mm)	1

Application:

1. Mount tool with pressure-unit **Pos.1** on upper wishbone as shown in Fig.2 (use pressure drift no: **I**).
2. Use 1/2" impact gun to rotate the drive nut of the pressure unit and press out the Clamp-Bolt. The initial movement of the Clamp-Bolt may be accompanied by a loud noise. (Fig.2).
3. The Clamp-Bolt must be removed in three stages, using the pressure drifts **II** and **III** in the pressure unit **Pos.1**. The final stage is to use both drifts **II** + **III** in combination (as shown in Fig.3).
4. Remove the hex clamp-bolt completely. In the event that the clamp-bolt remains stubborn, the Accessory Pressure Inserts Set **KL-0250-402** allows the bolt to be driven out completely.
5. Remove the hexagonal nut. Completely withdraw the Press Tool so that the clamp bore is free.
6. Both ball-joints may now be extracted by using Spindle Pos.5. (as shown in Fig.4).

Advantages:

- Large cost saving.
- Time savings of between 2 and 3 hours.
- No risk of damage to the suspension components.
- No risk of personal injury which can result from the hammer and drift method.

Technical data:

- Weight.....2,4 kg

Accessory:

KL-0250-402 Supplement- Pressure Drift Set

To press the hex. clamping screw completely out of the clamping hole (see point 4 of application).

consists of:

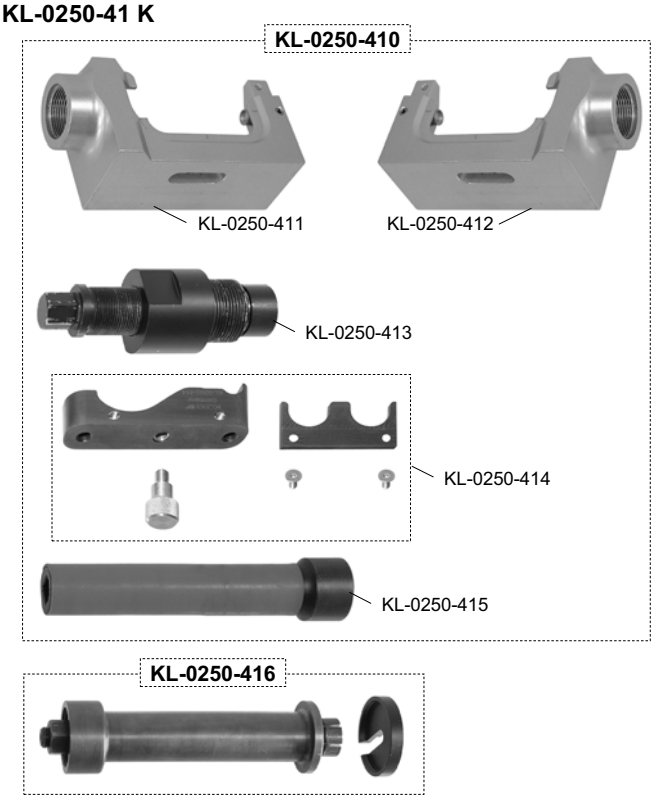
Part No.	Description	Qty.
KL-0250-4016	Pressure drift IV (Lenght 138 mm)	1
KL-0250-4017	Pressure drift V (Lenght 158 mm)	1
KL-0250-4018	Pressure drift VI (Lenght 178 mm)	1

KL-0250-403 T-Handle Puller

The **KL-0250-403** puller is suitable to extract the punches from the tool.

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KL-0250-41 K



Note:
The Extractor is being supplied in a plastic case.

Application examples: ⇒ *Extract clamping bolt left.*

Fig. 1: Extractor **KL-0250-410** assembled.

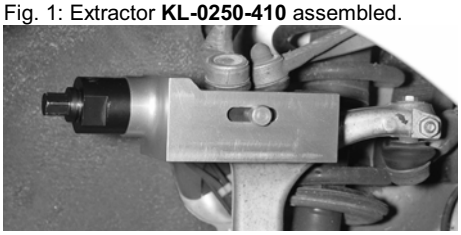


Fig. 2: Extraction of clamping bolt.

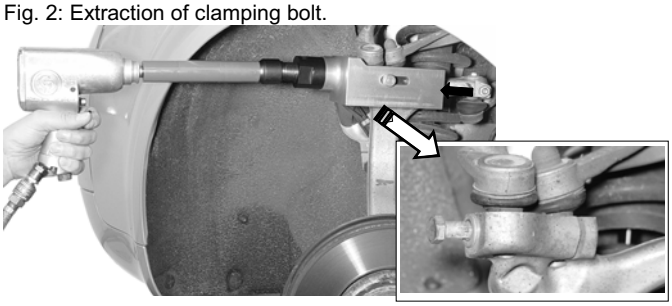


Fig. 3: Assemble extraction device. **KL-0250-416**.



Fig. 4: Clamping bolt is extracted.



KL-0250-41 K Extractor for Clamping bolt and Ball Joints with extraction device Audi A4 (2001-onwards) (German Utility Model)

Extraction of the upper wishbone clamping bolt and the ball joints.

Dismantling the upper wishbone clamping bolt from the upper wishbone has presented the mechanic with a serious problem, especially when the components are corroded.

Until now the only method of extraction was using a hammer and drift, which is not only inefficient in terms of time, but also carries the very real risk of damage to the suspension.

The new extractor **KL-0250-41 K** with its proper pressure unit and extraction device, allows quick and clean extraction of the clamping bolt and upper ball joints. The loosen clamping bolts are removed by means of the extraction device. The tool works on both left hand and right hand suspension assemblies.

Specification:

KL-0250-41 K Extractor for Clamping bolt and Ball Joints with extraction device

Part No.	Description	Qty.
KL-0250-410	Extractor for clamping bolt	1
KL-0250-416	Extraction device	1
	Plastic case (not ill.)	1

KL-0250-410 Extractor for Clamping Bolt

Part No.	Description	Qty.
KL-0250-411	Extractor left	1
KL-0250-412	Extractor right	1
KL-0250-413	Pressure-unit	1
KL-0250-414	Fixing unit	1
KL-0250-415	Special-Impact Socket hex. 24	1

Application:

1. Mount Extractor with pressure unit on upper wishbone as shown in Fig.1
2. Screw the hex. nut of the pressure unit by using the special socket wrench 24 mm and the ½“ impact screwdriver. The clamping bolt shall be pulled out. The loosening takes place with a loud noise (Fig. 2).
3. Remove the extractor. Install the extraction device to extract the loosen clamping bolt (Fig. 3).
4. Screw the hex. nut of the extraction device by means of the special socket wrench 24 mm and extract completely the clamping bolt (Fig. 4).

Advantages:

- Large cost saving
- Time savings of between 2 and 3 hours.
- No risk of damage to the suspension components.
- No risk of personal injury which can result from the hammer and drift method.

Technical data:

- Weight ..... 8,2 kg

Accessory:

KL-0250-417 Supplement Kit for Audi A6 (2004 onwards)
Consists of pressure drift and fixing unit. (not ill.)

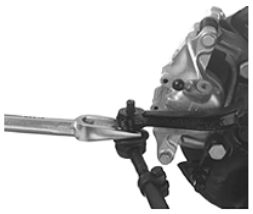
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2

KL-0160-Serie



Universal



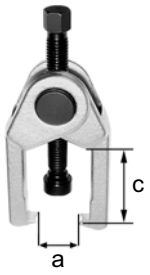
KL-0160-7 K



Universal



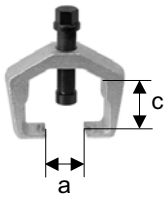
KL-0161-8



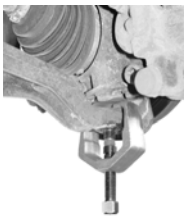
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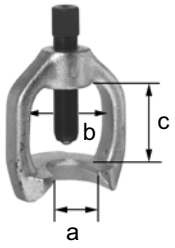
KL-0161-9



Fiat



KL-0161-Serie



Universal



KL-0160-Series Separator Forks

The wedge profiled fork allows easy and quick separation of conical seat ball-joints.

Also useful for removal of shock-absorbers and steering-column clamps.

Warning: Separator Forks may damage the gaiter.

Part-No.	a (fork opening) =
KL-0160-1	18 mm
KL-0160-2	23 mm
KL-0160-3	30 mm
KL-0160-4	40 mm

KL-0160-7 K Separator Fork Set

5 piece Separator Fork Set.

Consists of:
3 Fork heads with openings a = 17,5 mm, a = 23,5 mm und a = 28,5 mm, a 200 mm Handle and an Adaptor with 10 mm Ø Shaft and 175 mm Length, suitable for impact hammer.

The wedge form of the Forks allow quick and easy separating of Ball-Joints from their conical seats.

The Set is delivered in Plastic Storage Case.

Warning: Separator Forks may damage the gaiter.

KL-0161-8 Ball-Joint Extractor

For quick and easy separation of ball joint connections.

e.g. Mercedes G-Class; S-Class (W220), Porsche Cayenne, VW Touareg; Golf IV etc.

a = 18 - 45 mm

c = 60 mm

KL-0161-9 Ball-Joint Extractor

To separate Ball-Joints from the steering stub axle. Especially for front axles **e.g. on Fiat Ducato** etc.

a = 34 mm

c = 51 mm

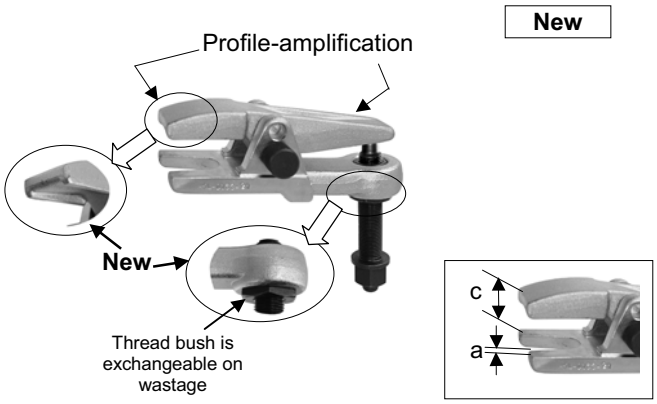
KL-0161-Series Ball Joint Extractors

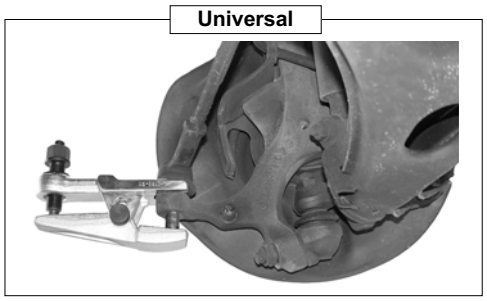
For quick and easy separation of ball joint connections.

Part-No.	a =	b =	c =
KL-0161-1	18 mm	40 mm	35 mm
KL-0161-2	23 mm	50 mm	45 mm
KL-0161-3	29 mm	60 mm	55 mm
KL-0161-4	40 mm	80 mm	80 mm
KL-0161-5	46 mm	90 mm	100 mm

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KL-0163-21

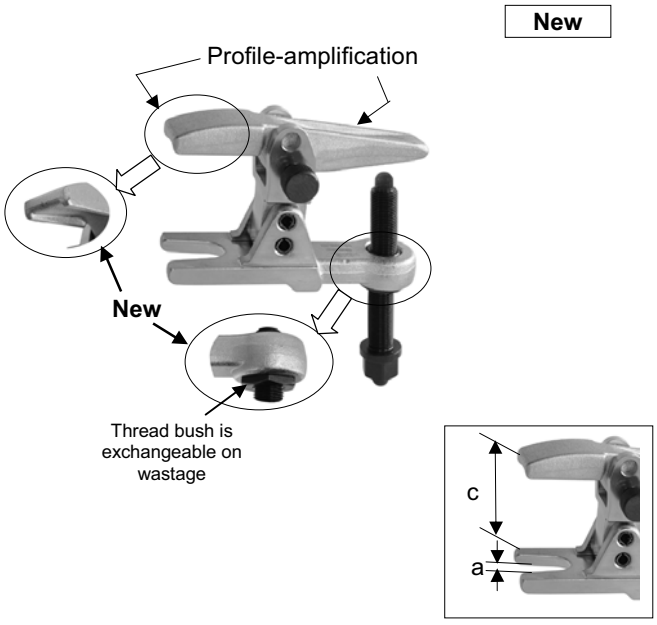




Accessory:
KL-0163-221 Adaptor with rolled pins



KL-0163-22



KL-0163-21 Ball Joint Extractor
reinforced version (universal)
(German Utility Model)

For quick and easy separation of ball joint connections, especially on steering arms, steering knuckles, anti-roll bars etc.

Part No.	Description	Qty.
KL-0163-21	**Ball Joint Extractor Reinforced version**	
consists of:		
KL-0163-2101	Fork Body	1
KL-0163-2102	Pressing Lever	1
KL-0163-2103	Pressing Spindle	1
KL-0163-2104	Bolt	1
KL-0163-2105	Thread Bush	1

Technical data:

Part No.	suitable for	a =	c =
KL-0163-21	VW-Audi, BMW, Fiat, Ford, Mercedes, Nissan, Opel, Peugeot, Renault, Rover, Saab, Toyota, Volvo	20 mm	2-stage up to 50 mm

(Similar to **KL-0163-1**, but *reinforced* version)

Accessory:
KL-0163-221 Adaptor with rolled pins

Part No.	Description	Qty.
KL-0163-221	**Adaptor with rolled pins**	
consists of:		
KL-0163-2202	Adaptor	1
KL-0163-2204	Rolled pin	2

KL-0163-22 Ball Joint Extractor
reinforced version (universal)
(German Utility Model)

For quick and easy separation of ball joint connections, especially on steering arms, steering knuckles, anti-roll bars etc.

Part No.	Description	Qty.
KL-0163-22	**Ball Joint Extractor Reinforced version with Adaptor**	
consists of:		
KL-0163-221	**Adaptor with rolled pins**	**1**
KL-0163-2201	Fork Body	1
KL-0163-2102	Pressing Lever	1
KL-0163-2203	Pressing Spindle	1
KL-0163-2104	Bolt	1
KL-0163-2105	Thread Bush	1

Part No.	Description	Qty.
KL-0163-221	**Adaptor with rolled pins**	
consists of:		
KL-0163-2202	Adaptor	1
KL-0163-2204	Rolled pin	2

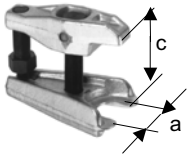
Technical data:

Part No.	suitable for	a =	c =
KL-0163-22	Opel, VW Transporter etc.	20 mm	2-stage up to 95 mm

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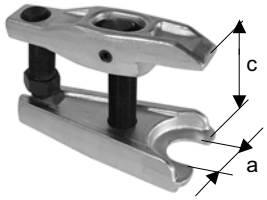
KL-0162-1



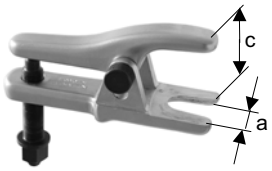
Universal



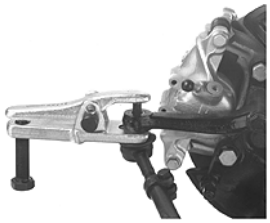
KL-0162-2



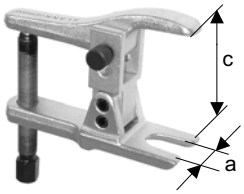
KL-0163-1



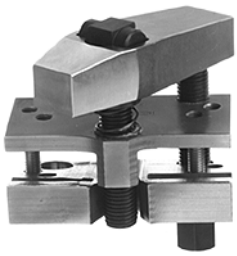
Universal



KL-0163-2



KL-0450-1



Opel



KL-0162-1 Ball Joint Extractor (universal)

For quick and easy separation of ball joint connections.

Advantage:

Dimension c is infinitely adjustable so providing a wider range of application.

Part-No.	a =	c =
KL-0162-1	conical 18 - 22 mm	adjustable up to 50 mm max.

KL-0162-2 Ball Joint Extractor

For quick and easy separation of ball joint connections.

Advantage:

Dimension c is infinitely adjustable so providing a wider range of application.

Part-No.	a =	c =
KL-0162-2	conical 30 - 80 mm	adjustable up to 80 mm max.

KL-0163-1 Ball Joint Extractor (universal)

For quick and easy separation of ball joint connections.

Part-No.	for	a =	c =
KL-0163-1	VW-Audi, BMW, Fiat, Ford, Mercedes, Nissan, Opel/Vauxhall, Peugeot, Renault, Rover, Toyota, Volvo,	20 mm	2-stage up to 50 mm

KL-0163-2 Ball Joint Extractor (universal)

For quick and easy separation of ball joint connections.

Part-No.	for	a =	c =
KL-0163-2	Opel/ Rekord, Senator, Monza, VW Transporter	20 mm	2-stage, 50-80 mm

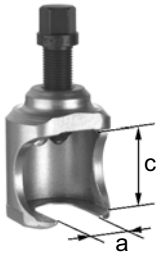
KL-0450-1 Ball Joint Extractor (Pat.)

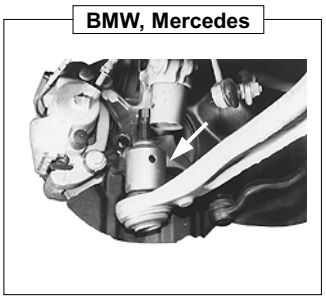
For track-rod and steering arm joints on **Opel Omega B**.

For quick and easy separation of track-rod ball-joints and steering control-arm ball-joints.

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KL-0164-5





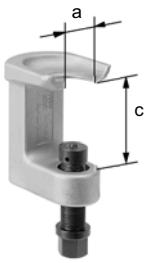
KL-0164-5 Ball Joint Extractor

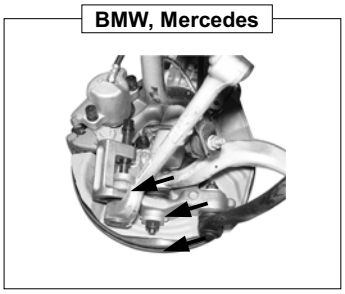
For quick and easy separation of ball joint connections. e.g. **Mercedes W211, W220** and especially in narrow space conditions like on **BMW E46 and Mercedes W 168** etc.

Technical Data:

a : ..... 24 mm
c : ..... 45 mm
Drive: ..... 17 mm hex
Diameter - outside: ..... 55 mm

KL-0164-7





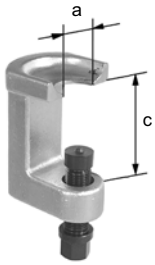
KL-0164-7 Ball Joint Extractor

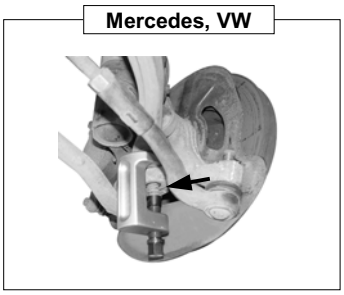
For quick and easy separation of ball joint connections, especially for front axle on **BMW E39 (5 series)** and **Mercedes W210** etc.

Technical Data:

a : ..... 24 mm
c : ..... 55 mm
Weight: ..... 900 g

KL-0164-8





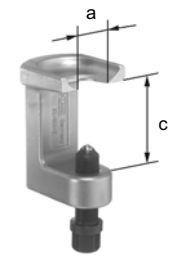
KL-0164-8 Ball Joint Extractor

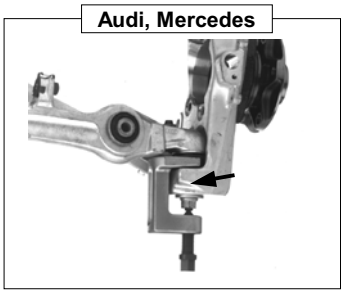
For quick and easy separation of ball joint connections, especially for front axle on **Mercedes e.g. W203, W210, W211, W163** and **VW e.g. T5** etc.

Technical Data:

a : ..... 26 mm
c : ..... 56 mm
Weight: ..... 750 g

KL-0164-3





KL-0164-3 Ball Joint Extractor

For quick and easy separation of ball joint connections, especially for front axle on **Audi A4, A6** and **A8** as well as **VW Passat, Mercedes W203** etc.

Technical Data:

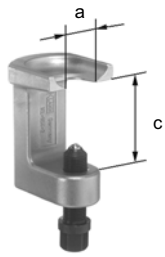
a : ..... 28 mm
c .: ..... 55 mm
Weight: ..... 900 g

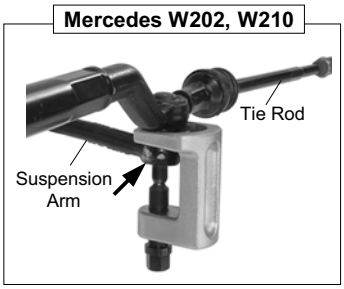
Note:
Only for closed Ball Joint pivots or with centre hole.

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KL-0164-2





KL-0164-2 Ball Joint Extractor

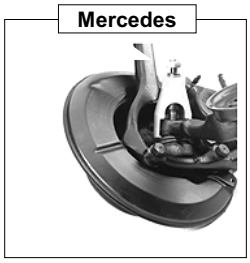
For quick and easy separation of ball joint connections, especially in narrow space conditions like on **Audi, VW, BMW, Ford, Mercedes (W163, W168, W170, W202, W210 etc), Opel etc.**

a :.....23 mm
c :.....55 mm
Weight : .....900 g

Note:
Only for closed Ball Joint pivots or with centre hole.

KL-0320





KL-0320 Ball Joint Extractor

For **Mercedes Type W116, W123, W126, W169, W210, W245, W463, etc.**

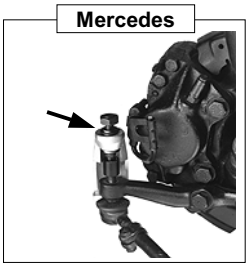
For quick and easy separation of ball joint connections from the lower wishbone.

Also applicable for other vehicles, e.g.: Fiat, Toyota, etc.

a :.....27 mm (fork opening)

KL-0321





KL-0321 Ball Joint Extractor

For **Mercedes Type W123, W124, W126, W129, W201 etc.**

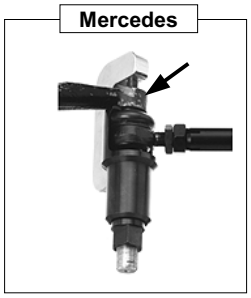
For quick and easy separation of ball joint connections from the drag link.

Also applicable to other vehicles, eg: VW-Audi, BMW, Citroën, Fiat, Ford, Opel, Peugeot, Renault, Saab, Volvo, Japanese Passenger cars, etc.

a :.....21 mm (fork opening)

KL-0322





KL-0322 Ball Joint Extractor

For **Mercedes Type W123, W124, W126, W129, W201 etc.**

For quick and easy separation of ball joint connections from the drag link.

Also applicable for other vehicles, e.g.: **BMW, etc.**

a :.....28 mm (fork opening)

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KL-0165-1 - Puller System with Case

The right choice!



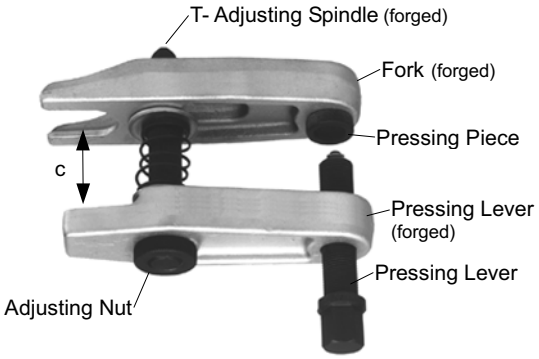
Suitable for Ball Joint Pivots.

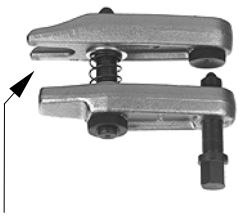


with centre hole | with inner hex | closed

Note: Specification and individual parts see page 2-27.

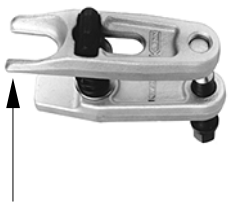
KL-0165-10





Dimension **c** may be reduced by rotation of the Fork.

KL-0165-1: $c_{max.}$= 65 mm



Forks inter-changeable by 90° degree rotation.

KL-0165-3: $c_{max.}$= 70 mm

KL-0165-Series Extractor System (Patented)
(e.g. US-Patent 5 906 034)

Application: For all cars and trucks.

For quick and easy separation of ball joint connections in suspension and steering systems.

The ever increasing use of ball-joints in suspension and steering systems found in today's vehicles has lead to the need for an ever-widening range of ball-joint splitters, due to the wide range of diameters and lengths of ball-joints.

In addition, the increasing use of conical ball-joint seats has lead to the need for increased stability and strength of ball-joint splitters to achieve easy separation. This ease of operation relies on the precise relationship between the angle of the pressure piece and the threaded bolt of the ball-joint.

For the first time, the KL-0165 Series Ball-Joint Separators offer the mechanic a system of splitters which can be adjusted for both the angle of pressure and the diameter of the ball-joint. The angle is adjustable by a screw, while different diameters are handled by a series of inter-changeable forks.

Ball Joint Extractor size 1 (see Page 2-27)
For **cars.**

Ball Joint Extractor size 2 (see Page 2-27)
For **small trucks.**

Ball Joint Extractor size 3 (see Page 2-28)
For **trucks.**

Advantages:

- The pressure fork is removed by a 90° rotation. Interchangeable forks provide universal applications.
- Threaded adjustment allows exact positioning of the pivot to provide the exact angle of pressure.
- The pressure forks are located by an interlock with a T-form threaded spindle which offers a high degree of stability.
- By rotation of the pressure spindle, the tool may be operated from above or below, offering a real advantage where working space is limited.
- The pressure-spindle is driven by a 19mm hex provided with a safety shoulder to prevent the risk of accidents resulting from the spanner slipping.
- Interchangeability of the forks allows a rapid adjustment of operating diameters for a wide variety of ball-joint sizes.

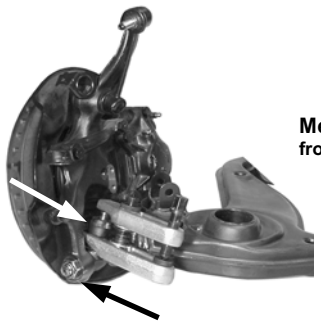
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KL-0165-Series Ball Joint Extractor

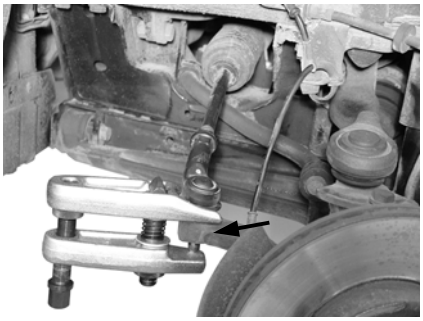
KL-0165-12

Patented



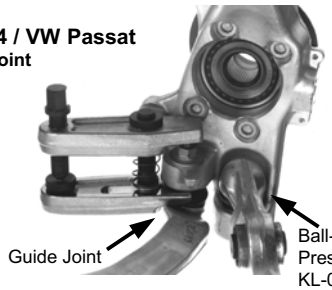
Mercedes W140 (S-Class) front axle etc.

KL-0165-14

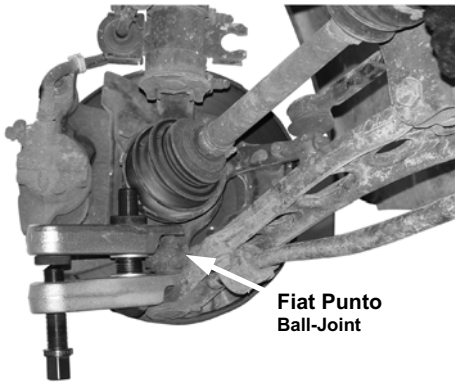


VW T4 Ball-Joint

Audi A4 / VW Passat
Guide-Joint



KL-0165-15



Fiat Punto
Ball-Joint

KL-0165-12 Ball Joint Extractor size 1

Suitable for Mercedes W140 (S Class), W220 (S Class) Ball-Joint and Guide-Joint front axle, VW Golf IV Ball-Joint etc.

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 24 mm)

consists of:

Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1,5)
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm

Note: Spare Parts and further Forks see Page 2-27.

KL-0165-14 Ball Joint Extractor size 1

Suitable e.g. for Audi A4 / VW Passat, Skoda Superb, Guide-Joint, VW T4 Track Rod Ball-Joint etc.

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 30 mm)

consists of:

Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1,5)
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm

Note: Spare Parts and further Forks see Page 2-27.

KL-0165-15 Ball Joint Extractor size 1

Specially for Ball-Joint on Fiat Punto.

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 22 mm)

consists of:

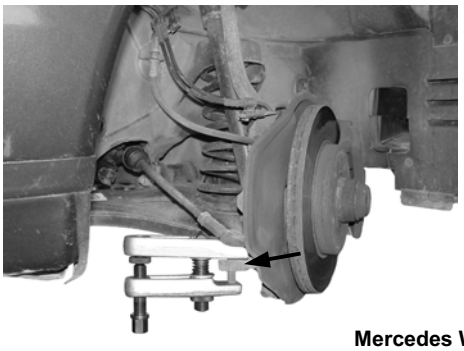
Part No.	Description
KL-0165-1502	Pressing Lever
KL-0165-1003	Pressing Lever (M18x1,5 x 110)
KL-0165-1004	Pressing Spindle (M18x1,5 x 70)
KL-0165-1005	Ball socket
KL-0165-1006	Adjusting Nut (M18x1,5)
KL-0165-1007	Spring
KL-0165-1008	Plain washer Ø 18
KL-0165-1501	Fork 22mm

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KL-0165-Series Ball Joint Extractor

Patented

KL-0165-20



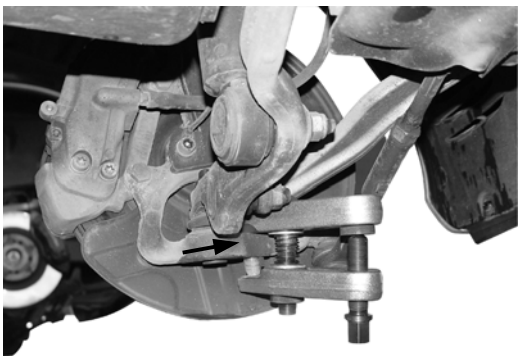
Mercedes W202 (C-Class)
Track Rod Ball Joints etc.

KL-0165-22



VW-Touareg
Track Rod Ball-Joint etc.

KL-0165-25



Mercedes W230 (SL)
lower Ball Joint

KL-0165-20 Ball Joint Extractor size 2

Suitable e.g. for Mercedes W163 (M-Class), W211 (E-Class), W220 (S-Class) upper Guide-Joint W170 (SLK), W202 (C-Class), W220 (S-Class) Track Rod Ball-Joint etc.

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 22 mm)

consists of:

Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm

Note: Spare Parts and further Forks see Page 2-27.

KL-0165-22 Ball Joint Extractor size 2

Suitable e.g. for VW Touareg / Porsche Cayenne Track Rod and upper Guide-Joint, Mercedes W210 Sprinter Track Rod Ball-Joint. Ford Transit Track Rod Ball-Joint. VW Golf IV lower Ball-Joint etc.

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 26 mm)

consists of:

Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm

Note: Spare Parts and further Forks see Page 2-27.

KL-0165-25 Ball Joint Extractor size 2

Suitable e.g. for Mercedes W211 (E-Class), W220 (S-Class) and W230 (SL) lower Ball-Joint

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 24 mm)

consists of:

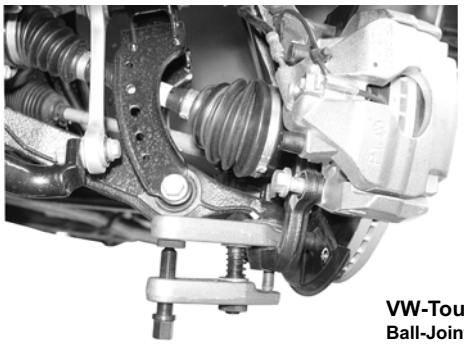
Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2501	Fork a=24 mm e=60 mm d=165 mm

Note: Spare Parts and further Forks see Page 2-27.

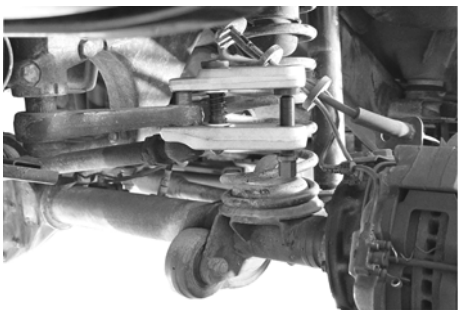
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KL-0165-23



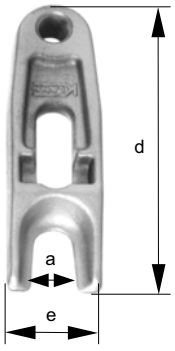
VW-Touareg
Ball-Joint etc.



Mercedes G-Class
reversing lever from the steering box etc.

KL-0165-0 K





Universal



KL-0165-23 Ball Joint Extractor size 2

Suitable z.B. for VW Touareg / Porsche Cayenne Ball-Joint, VW T4 lower Ball Joint, Mercedes G-Class Track rod Ball-Joint and Reversing lever from the steering box, Ford Transit lower Ball Joint

Advantage: Universal using.
Further Informations see Page 2-23.

(Fork opening a = 30 mm)

consists of:

Part No.	Description
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm

Note: Spare Parts and further see Page 2-27.

KL-0165-0 K Ball Joint Extractor Set size 1

Suitable for cars and small trucks e.g.

⇒ with fork **KL-0165-1201** for:
Mercedes W140, W220 (S-Class) Ball-Joint / Guide-Joint Front axle, VW Golf IV Track rod Ball-Joint etc.

⇒ with fork **KL-0165-1401** for:
Audi A4 / VW Passat, Skoda Superb Guide-Joint, VW T4 Track rod Ball-Joint etc.

For quick and easy separation of ball joint connections at suspension and steering systems.

Weight: .....6,5 kg

Specification:

Part No.	Description
KL-0165-0 K	**Ball Joint Extractor Set**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1,5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm
KL-0165-1090	Plastic storage case

Absolutely necessary for VW-Audi, Seat, Škoda, Mercedes, Opel etc.

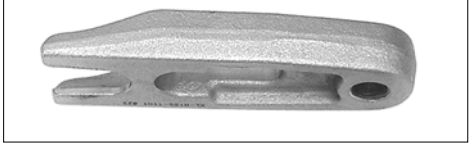
Note: Further forks size 2 see page 2-27.

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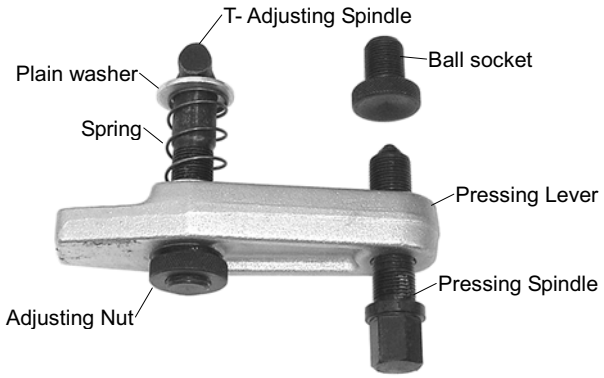
Cars up to small trucks

Patented

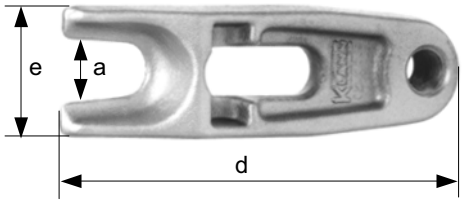
Fork



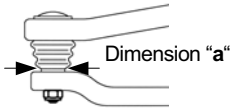
Ball Joint without Fork



Fork for KL-0165 Extractor-Series

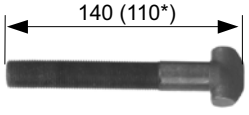


Note: For determination of the suitable fork dimension “a”, please measure on the car (see ill.) and choose the appropriate fork.

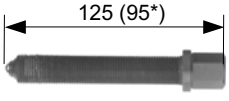


Accessories: Extended T-Adjusting Spindle and Pressig Spindle

KL-0165-1013
T-Adjusting Spindle M18×1,5



KL-0165-1014
Pressing Spindle M18×1,5



KL-0165-1 Ball Joint Extractor Set

For cars up to small trucks. (size 1 and size 2) Weight:.....10,5 kg

Part No.	Description
KL-0165-1	**Ball Joint Extractor Set**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm
KL-0165-2101	Fork a=24 mm e=60 mm d=165 mm
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm
KL-0165-1090	Plastic storage case

KL-0165-100 Base Tool without Fork

Part No.	Description
KL-0165-100	**Base Tool without Fork**
consists of:	
KL-0165-1002	Pressing Lever
KL-0165-1003	T- Adjusting Spindle M18x1,5 x 110
KL-0165-1004	Pressing Spindle M18x1,5 x 70
KL-0165-1005	Ball socket
KL-0165-1006	Adjusting Nut M18x1,5
KL-0165-1007	Spring
KL-0165-1008	Plain washer Ø18

Ball Joint Extractor size 1

Part No.	Description
KL-0165-10	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
KL-0165-11	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
KL-0165-12	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
KL-0165-13	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
KL-0165-14	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm

Ball Joint Extractor size 2

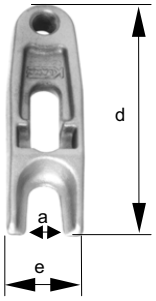
Part No.	Description
KL-0165-20	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm
KL-0165-21	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2101	Fork a=24 mm e=60 mm d=165 mm
KL-0165-22	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm
KL-0165-23	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm
KL-0165-24	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2401	Fork a=34 mm e=60 mm d=165 mm
KL-0165-25	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2501	Gabel a=24 mm e=60 mm d=165 mm

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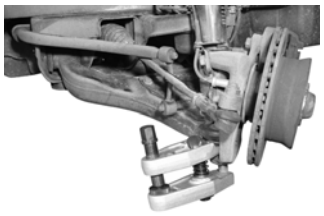
2

KL-0165-3 A



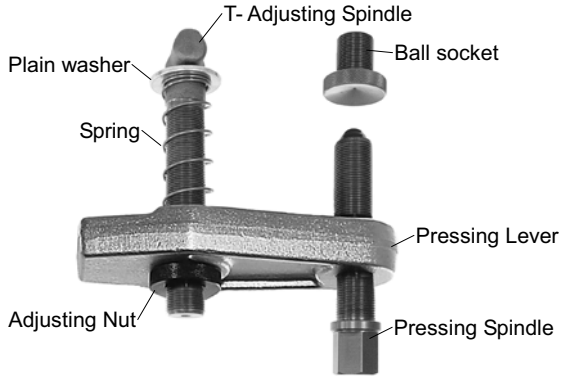


Mercedes



KL-0165-300

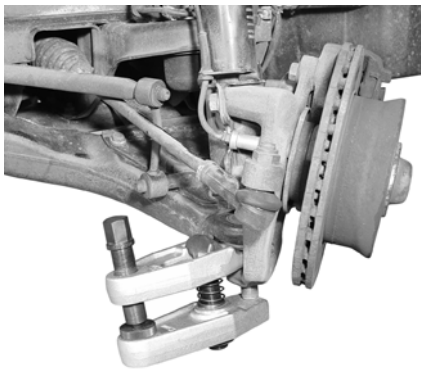
Base Tool



Application examples:

Suitable for Ball Joint Pivots

With inner hex  closed



KL-0165-35
suitable e.g. for
MB Sprinter, VW LT '98 onwards, VW T4 Guide Joint

KL-0165-3 A Ball Joint Extractor Set
(with 6 forks) (Pat.)

Suitable for Mercedes HGV etc.

Ball Joint Extractor **KL-0165-3 A** is ideal for separating ball joints at axles and steering systems, and is particularly suitable for Mercedes commercial vehicles.

Part No.	Description	Qty.
KL-0165-3 A	**Ball Joint Extractor Set**	1
consists of:		1
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)	**1**
KL-0165-3001	Fork a=30 mm, e=80 mm, d=200 mm e.g. suitable for Landini-Tractors	1
KL-0165-3101	Fork a=34 mm, e=80 mm, d=200 mm	1
KL-0165-3201	Fork a=40 mm, e=80 mm, d=200 mm e.g. suitable for Mercedes, MAN, Scania, Volvo, etc.	1
KL-0165-3301	Fork a=42 mm, e=80 mm, d=200 mm e.g. suitable for Mercedes, MAN, Scania, Volvo, etc. and John Deere-Tractors	1
KL-0165-3401	Fork a=47 mm, e=80 mm, d=200 mm	1
KL-0165-3501	Fork a=30 mm, e=80 mm, d=200 mm e.g. suitable for MB Sprinter '95 onwards, VW LT '98 onwards Ball Joint, VW T4 Guide Joint etc.	1

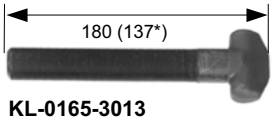
KL-0165-300 Base Tool without Fork

Part No.	Description
KL-0165-300	**Base Tool without Fork**
consists of:	
KL-0165-3002	Pressing Lever
KL-0165-3013	T- Adjusting Spindle M24x1,5 x 180
KL-0165-3014	Pressing Spindle M24x1,5 x 135
KL-0165-3005	Ball socket
KL-0165-3006	Adjusting Nut M24x1,5
KL-0165-3007	Spring
KL-0165-3008	Plain washer Ø24

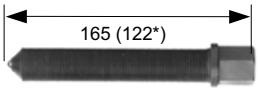
Ball Joint Extractor size 3 for trucks

Part No.	Description
KL-0165-30	**Ball Joint Extractor size 3** suitable e.g. for MAN and Landini-Tractors, etc.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3001	Fork a=30 mm e=80 mm d=200 mm
KL-0165-31	**Ball Joint Extractor size 3** e.g. suitable for MAN, etc.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3101	Fork a=34 mm e=80 mm d=200 mm
KL-0165-32	**Ball Joint Extractor size 3** suitable e.g. for Mercedes, MAN, Scania, Volvo, etc.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3201	Fork a=40 mm e=80 mm d=200 mm
KL-0165-33	**Ball Joint Extractor size 3** suitable e.g. for Mercedes, MAN, Scania, Volvo, etc. and John Deere-Tractors.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3301	Fork a=42 mm e=80 mm d=200 mm
KL-0165-34	**Ball Joint Extractor size 3** e.g. suitable for Mercedes van, etc.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5))
KL-0165-3401	Fork a=47 mm e=80 mm d=200 mm
KL-0165-35	**Ball Joint Extractor size 3** suitable e.g. for MB Sprinter '95 onwards, VW LT '98 onwards Ball Joint VW T4 Guide Joint etc.
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3501	Fork a=30 mm e=80 mm d=200 mm

Accessories for KL-0165-3: Extended T-Adjusting Spindle and Pressing Spindle



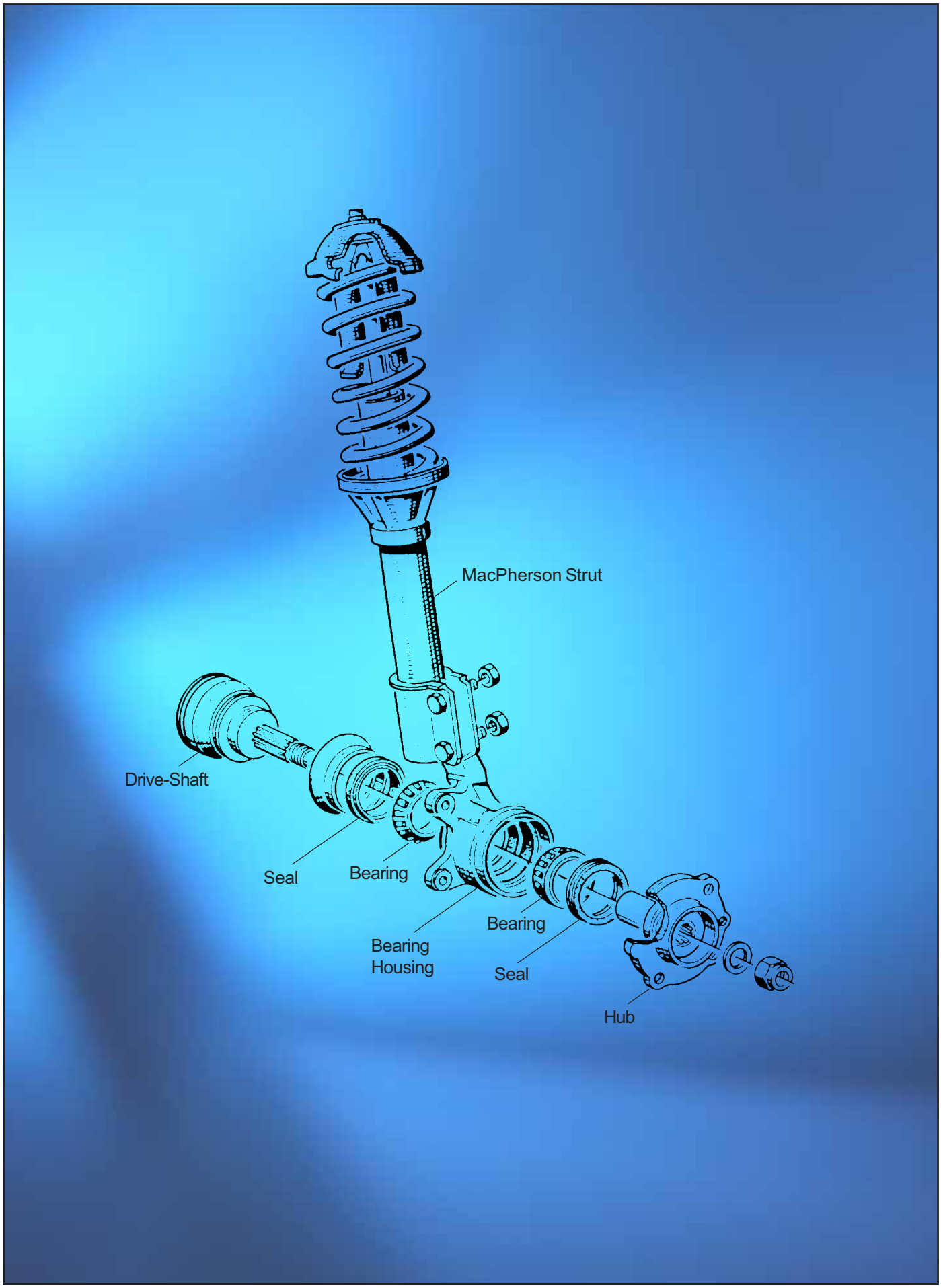
KL-0165-3013
T-Adjusting Spindle M24×1,5



KL-0165-3014
Pressing Spindle M24×1,5

* Values in brackets are for normal length components.

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3

Application examples of the KLANN modular system

➢ Drive-Shaft extraction

With the **KL-0174-series** Puller
Extraction of Loctited Drive-Shafts may be easily accomplished by using the optional Hydraulic Spindle **KL-0045-7 (12t.)** or the Hydraulic Cylinder **KL-0215-10 (17t.)**



➢ Removal of wheel-bearing inner-races from the hub

By use of the **KL-0042-90** with appropriate chucks.



➢ Wheel hub extraction

with the tool **KL-0041-38.** Due to the hydraulic cylinder (17 t.) **KL-0040-2500** even very stuck or glued wheel hubs can be removed without problems.



➢ Wheel hub bearing unit insertion

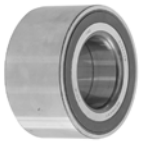
by using the KLANN wheel bearing tool set.



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Chapter 3 overview

3.1 Wheel Bearings Page 3.1-01 - 3.1-12



3.2 Wheel Hub Bearing units Page 3.2-01 - 3.2-04



3.3 Wheel Hubs Page 3.3-01 - 3.3-09



3.4 Drive shafts Page 3.4-01 - 3.4-05



3.5 Wheels Page 3.5-01 - 3.5-05



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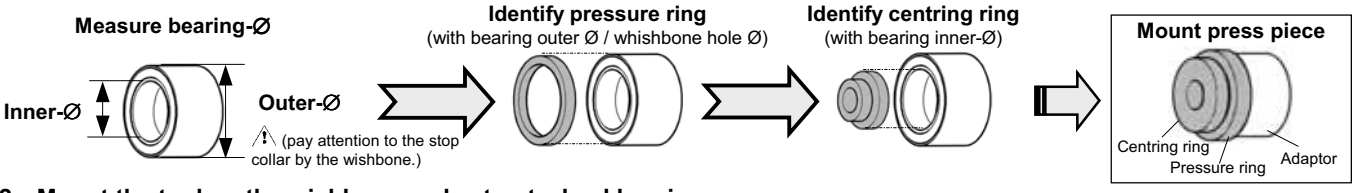
The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

The big advantages of the new and unique bearing/bush tools are:

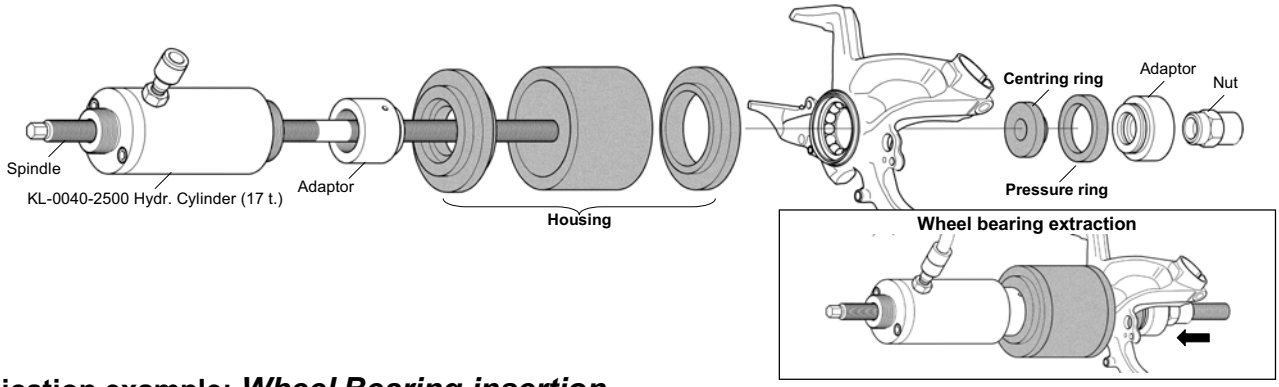
- **Modular system provided with a versatile hydraulic drive (KL-0040-2500), two adaptors and universally combinable centring and pressure rings as well as pressure and support sleeves.**
- **Universal field of application.**
- **Huge time and cost savings due to the easy assembling of the required tool.**

Application example: *Wheel bearing extraction.*

1. **Configuration of the required pieces and tool assembling:**
   Measure inner-/outer-Ø, identify pressure and centring rings. (see table page 3.1-03)

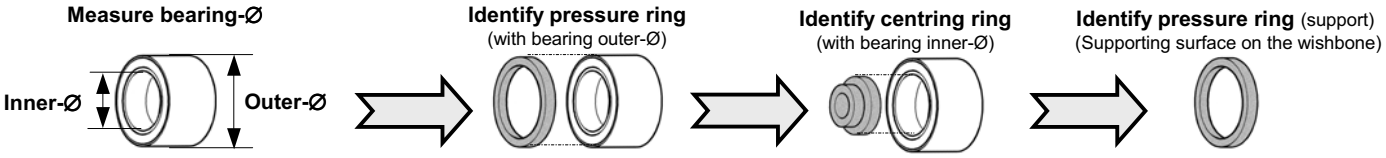


2. **Mount the tool on the wishbone and extract wheel bearing.**

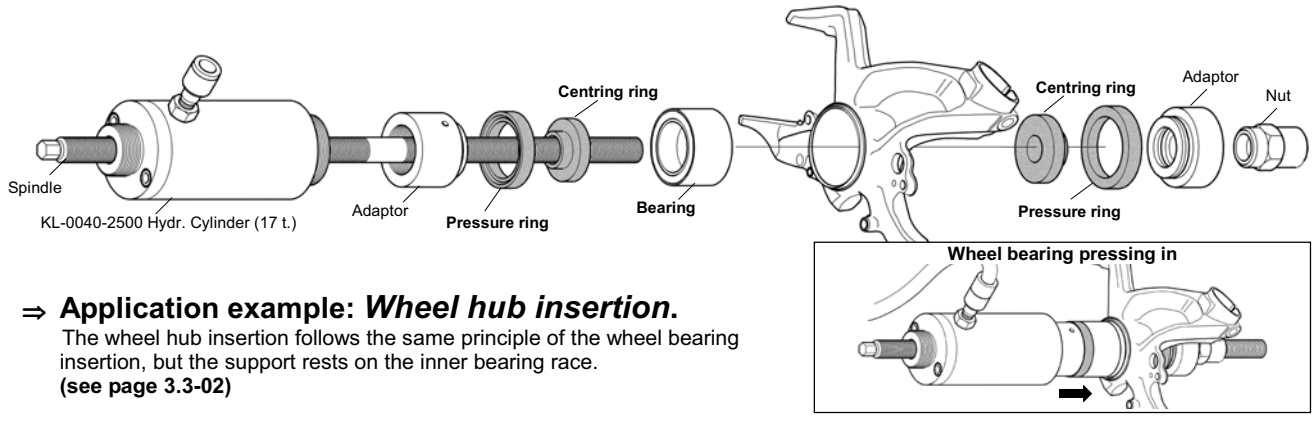


Application example: *Wheel Bearing insertion.*

1. **Configuration of the required pieces and tool assembling:**
   Measure inner-/outer-Ø, identify pressure and centring ring (wheel bearing), identify pressure ring (wheel bearing housing support) (see table page 3.1-03)



2. **Mount the tool on the wishbone and press the wheel bearing in.**



⇒ **Application example: *Wheel hub insertion.***
The wheel hub insertion follows the same principle of the wheel bearing insertion, but the support rests on the inner bearing race.
(see page 3.3-02)

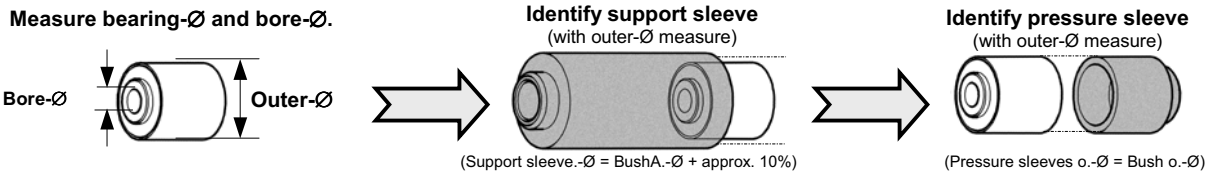
Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 4-08.

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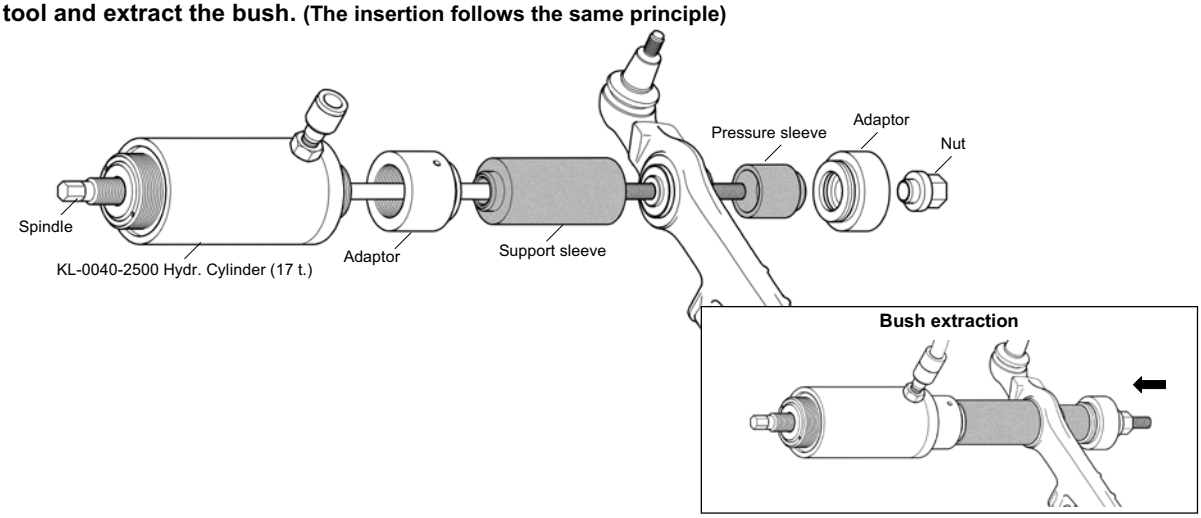
The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

Application example: *Bush extraction / insertion by using a Puller Spindle.*

1. **Configuration of the required pieces and tool assembling:**
   Measure bush-Ø, identify spindle, pressure and support sleeve. (See table page 3.1-03, 3.1-04)

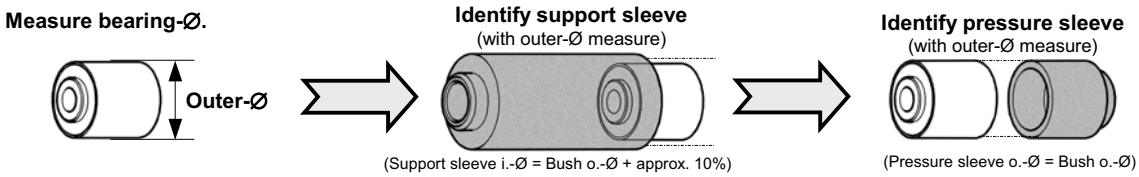


2. **Mount the tool and extract the bush. (The insertion follows the same principle)**

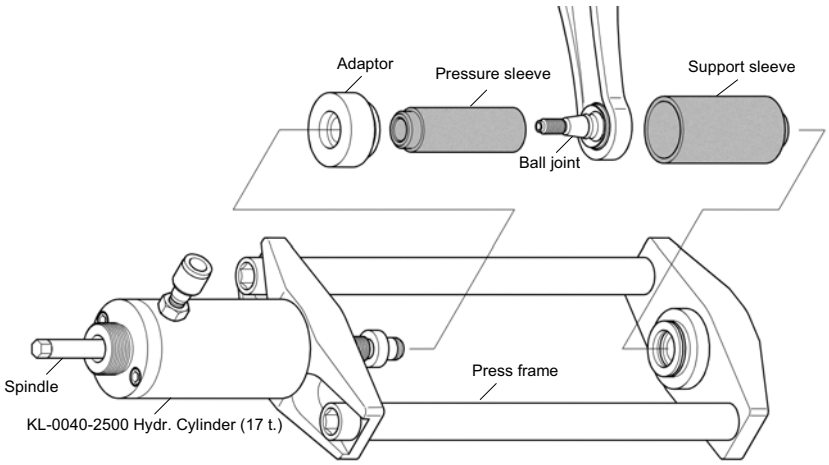


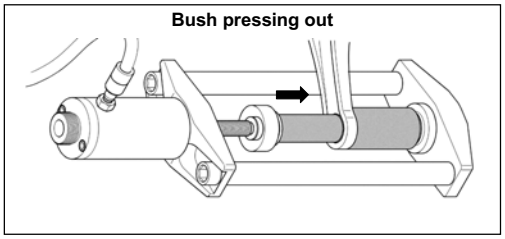
Application example: *Ball Joint / Bush extraction / insertion with Press Frame.*

1. **Configuration of the required pieces and tool assembling:**
   Measure the bush outer-Ø, identify pressure and support sleeve. (See table page 3.1-03, 3.1-04)



2. **Mount the tool and press the ball joint out. (The insertion follows the same principle)**

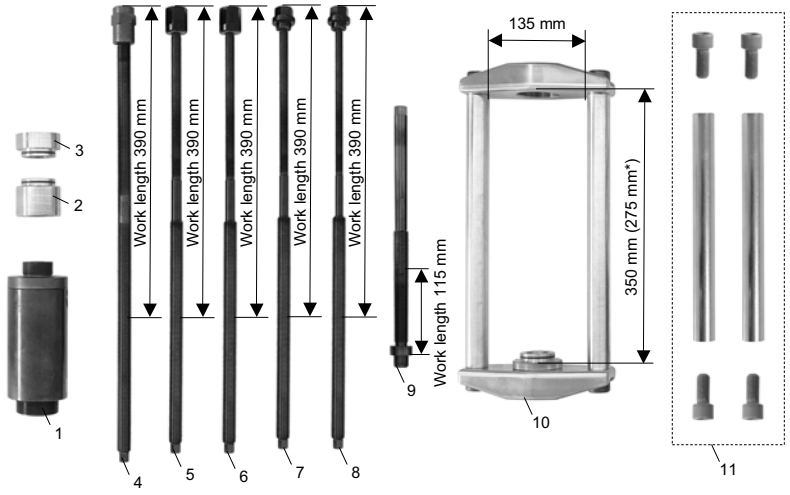




Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 4-08.

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KL-0039- Series Wheel Bearing/ Silent Block Tool



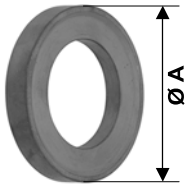
Drive and base pieces

Pos.	Part No.	Description	Qty.
Cylinder:			
1	KL-0040-2500	Hydraulic cylinder 17 t	1
Adaptor:			
2	KL-0039-1003	Retain adaptor for hydraulic cylinder	1
3	KL-0039-1002	Retain adaptor for Nut M20	1
Spindles:			
4	KL-0039-1920	Spindle M20 with clamping nut	1
5	KL-0039-1916	Spindle M16 with shoulder nut	1
6	KL-0039-1914	Spindle M14 with shoulder nut	1
7	KL-0039-1912	Spindle M12 with shoulder nut	1
8	KL-0039-1910	Spindle M10x1.25 with shoulder nut	1
9	KL-0039-1930	Pressure Spindle	1
Press Frame:			
10	KL-0039-1130	Press frame	1
Accessory:			
11	KL-0039-111	Frame rods 285 mm long	1

* If using the frame rods KL-0039-111.

Application pieces ⇒ *Wheel Bearing*

Pressure rings:



KL-0039-120 Pressure ring set Ø 54 - 90 mm (Inner-Ø 46 mm):

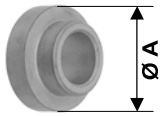
Part No.	Description	Ø A
KL-0039-1254	Pressure ring Ø54	Ø54
KL-0039-1260	Pressure ring Ø60	Ø60
KL-0039-1261	Pressure ring Ø61	Ø61
KL-0039-1262	Pressure ring Ø62	Ø62
KL-0039-1263	Pressure ring Ø63	Ø63
KL-0039-1264	Pressure ring Ø64	Ø64
KL-0039-1265	Pressure ring Ø65	Ø65
KL-0039-1266	Pressure ring Ø66	Ø66
KL-0039-1267	Pressure ring Ø67	Ø67
KL-0039-1268	Pressure ring Ø68	Ø68
KL-0039-1269	Pressure ring Ø69	Ø69

Part No.	Description	Ø A
KL-0039-1270	Pressure ring Ø70	Ø70
KL-0039-1271	Pressure ring Ø71	Ø71
KL-0039-1272	Pressure ring Ø72	Ø72
KL-0039-1273	Pressure ring Ø73	Ø73
KL-0039-1274	Pressure ring Ø74	Ø74
KL-0039-1275	Pressure ring Ø75	Ø75
KL-0039-1276	Pressure ring Ø76	Ø76
KL-0039-1277	Pressure ring Ø77	Ø77
KL-0039-1278	Pressure ring Ø78	Ø78
KL-0039-1279	Pressure ring Ø79	Ø79
KL-0039-1280	Pressure ring Ø80	Ø80

Part No.	Description	Ø A
KL-0039-1281	Pressure ring Ø81	Ø81
KL-0039-1282	Pressure ring Ø82	Ø82
KL-0039-1283	Pressure ring Ø83	Ø83
KL-0039-1284	Pressure ring Ø84	Ø84
KL-0039-1285	Pressure ring Ø85	Ø85
KL-0039-1286	Pressure ring Ø86	Ø86
KL-0039-1287	Pressure ring Ø87	Ø87
KL-0039-1288	Pressure ring Ø88	Ø88
KL-0039-1289	Pressure ring Ø89	Ø89
KL-0039-1290	Pressure ring Ø90	Ø90

Accessory:		
KL-0039-1502	Pressure ring Ø93	Ø93

Centring rings:



KL-0039-130 Centring ring set Ø 25 - 60 mm:

Part No.	Description	Ø A
KL-0039-1325	Centring ring Ø25	Ø25
KL-0039-1326	Centring ring Ø26	Ø26
KL-0039-1327	Centring ring Ø27	Ø27
KL-0039-1328	Centring ring Ø28	Ø28
KL-0039-1329	Centring ring Ø29	Ø29
KL-0039-1330	Centring ring Ø30	Ø30
KL-0039-1331	Centring ring Ø31	Ø31
KL-0039-1332	Centring ring Ø32	Ø32
KL-0039-1333	Centring ring Ø33	Ø33
KL-0039-1334	Centring ring Ø34	Ø34
KL-0039-1335	Centring ring Ø35	Ø35
KL-0039-1336	Centring ring Ø36	Ø36

Part No.	Description	Ø A
KL-0039-1337	Centring ring Ø37	Ø37
KL-0039-1338	Centring ring Ø38	Ø38
KL-0039-1339	Centring ring Ø39	Ø39
KL-0039-1340	Centring ring Ø40	Ø40
KL-0039-1341	Centring ring Ø41	Ø41
KL-0039-1342	Centring ring Ø42	Ø42
KL-0039-1343	Centring ring Ø43	Ø43
KL-0039-1344	Centring ring Ø44	Ø44
KL-0039-1345	Centring ring Ø45	Ø45
KL-0039-1346	Centring ring Ø46	Ø46
KL-0039-1347	Centring ring Ø47	Ø47
KL-0039-1348	Centring ring Ø48	Ø48

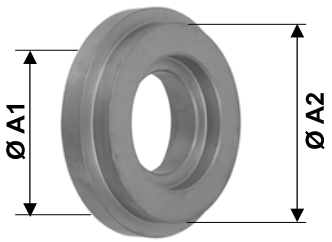
Part No.	Description	Ø A
KL-0039-1349	Centring ring Ø49	Ø49
KL-0039-1350	Centring ring Ø50	Ø50
KL-0039-1351	Centring ring Ø51	Ø51
KL-0039-1352	Centring ring Ø52	Ø52
KL-0039-1353	Centring ring Ø53	Ø53
KL-0039-1354	Centring ring Ø54	Ø54
KL-0039-1355	Centring ring Ø55	Ø55
KL-0039-1356	Centring ring Ø56	Ø56
KL-0039-1357	Centring ring Ø57	Ø57
KL-0039-1358	Centring ring Ø58	Ø58
KL-0039-1359	Centring ring Ø59	Ø59
KL-0039-1360	Centring ring Ø60	Ø60

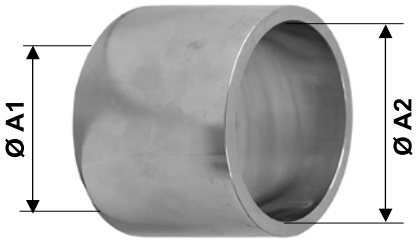
KL-0039-140 Housing set (bearing extension):

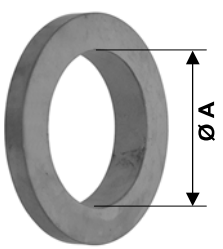
Bearing cap:		Housing:		Centring rings:	
Part No.	Description	Part No.	Description	Part No.	Description
KL-0039-1401	Bearing cap Ø A1: 84 / Ø A2: 90	KL-0039-1402	Housing Ø A1: 84 / Ø A2: 90	KL-0039-1413	Centring ring Ø A: 70
				KL-0039-1414	Centring ring Ø A: 75

Special plates:

Part No.	Description
KL-0039-1503	Adaptor ring conical
KL-0039-1504	Adaptor ring conical
KL-0039-1505	Adaptor ring cylindric







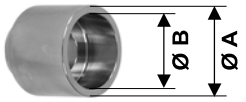


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KL-0039- Series Wheel Bearing / Silent Block Tool

Application pieces ⇒ *Silent Block*

Press/Support Tube Type 1:

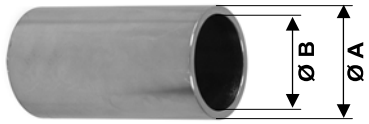


KL-0039-160 Press/Support Tube Set Ø30 - 90mm Type 1 (Length: 45 mm):

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1630	Press/Support Tube short Ø30	Ø30	Ø22	KL-0039-1642	Press/Support Tube short Ø42	Ø42	Ø34
KL-0039-1632	Press/Support Tube short Ø32	Ø32	Ø24	KL-0039-1644	Press/Support Tube short Ø44	Ø44	Ø36
KL-0039-1634	Press/Support Tube short Ø34	Ø34	Ø26	KL-0039-1646	Press/Support Tube short Ø46	Ø46	Ø38
KL-0039-1636	Press/Support Tube short Ø36	Ø36	Ø28	KL-0039-1648	Press/Support Tube short Ø48	Ø48	Ø40
KL-0039-1638	Press/Support Tube short Ø38	Ø38	Ø30	KL-0039-1650	Press/Support Tube short Ø50	Ø50	Ø42
KL-0039-1640	Press/Support Tube short Ø40	Ø40	Ø32	KL-0039-1652	Press/Support Tube short Ø52	Ø52	Ø44

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1654	Press/Support Tube short Ø54	Ø54	Ø46	KL-0039-1674	Press/Support Tube short Ø74	Ø74	Ø66
KL-0039-1656	Press/Support Tube short Ø56	Ø56	Ø48	KL-0039-1676	Press/Support Tube short Ø76	Ø76	Ø68
KL-0039-1658	Press/Support Tube short Ø58	Ø58	Ø50	KL-0039-1678	Press/Support Tube short Ø78	Ø78	Ø70
KL-0039-1660	Press/Support Tube short Ø60	Ø60	Ø52	KL-0039-1680	Press/Support Tube short Ø80	Ø80	Ø72
KL-0039-1662	Press/Support Tube short Ø62	Ø62	Ø54	KL-0039-1682	Press/Support Tube short Ø82	Ø82	Ø74
KL-0039-1664	Press/Support Tube short Ø64	Ø64	Ø56	KL-0039-1684	Press/Support Tube short Ø84	Ø84	Ø76
KL-0039-1666	Press/Support Tube short Ø66	Ø66	Ø58	KL-0039-1686	Press/Support Tube short Ø86	Ø86	Ø78
KL-0039-1668	Press/Support Tube short Ø68	Ø68	Ø60	KL-0039-1688	Press/Support Tube short Ø88	Ø88	Ø80
KL-0039-1670	Press/Support Tube short Ø70	Ø70	Ø62	KL-0039-1690	Press/Support Tube short Ø90	Ø90	Ø82
KL-0039-1672	Press/Support Tube short Ø72	Ø72	Ø64				

Press/Support Tube Type 2:



KL-0039-170 Press/Support Tube Set Ø30 - 90mm Type 2 (Length: 115 mm):

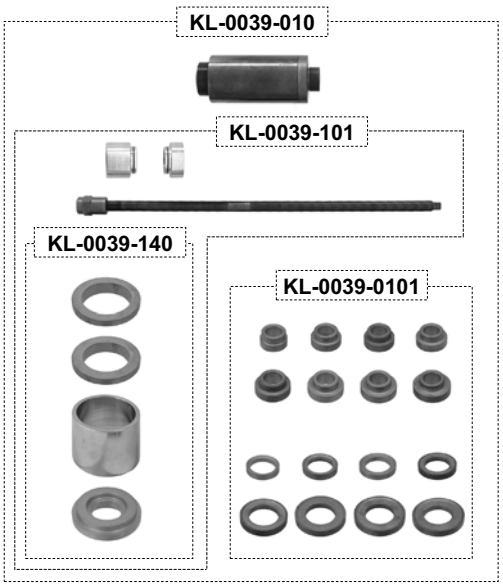
Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1730	Press/Support Tube long Ø30	Ø30	Ø22	KL-0039-1742	Press/Support Tube long Ø42	Ø42	Ø34
KL-0039-1732	Press/Support Tube long Ø32	Ø32	Ø24	KL-0039-1744	Press/Support Tube long Ø44	Ø44	Ø36
KL-0039-1734	Press/Support Tube long Ø34	Ø34	Ø26	KL-0039-1746	Press/Support Tube long Ø46	Ø46	Ø38
KL-0039-1736	Press/Support Tube long Ø36	Ø36	Ø28	KL-0039-1748	Press/Support Tube long Ø48	Ø48	Ø40
KL-0039-1738	Press/Support Tube long Ø38	Ø38	Ø30	KL-0039-1750	Press/Support Tube long Ø50	Ø50	Ø42
KL-0039-1740	Press/Support Tube long Ø40	Ø40	Ø32	KL-0039-1752	Press/Support Tube long Ø52	Ø52	Ø44

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1754	Press/Support Tube long Ø54	Ø54	Ø46	KL-0039-1774	Press/Support Tube long Ø74	Ø74	Ø66
KL-0039-1756	Press/Support Tube long Ø56	Ø56	Ø48	KL-0039-1776	Press/Support Tube long Ø76	Ø76	Ø68
KL-0039-1758	Press/Support Tube long Ø58	Ø58	Ø50	KL-0039-1778	Press/Support Tube long Ø78	Ø78	Ø70
KL-0039-1760	Press/Support Tube long Ø60	Ø60	Ø52	KL-0039-1780	Press/Support Tube long Ø80	Ø80	Ø72
KL-0039-1762	Press/Support Tube long Ø62	Ø62	Ø54	KL-0039-1782	Press/Support Tube long Ø82	Ø82	Ø74
KL-0039-1764	Press/Support Tube long Ø64	Ø64	Ø56	KL-0039-1784	Press/Support Tube long Ø84	Ø84	Ø76
KL-0039-1766	Press/Support Tube long Ø66	Ø66	Ø58	KL-0039-1786	Press/Support Tube long Ø86	Ø86	Ø78
KL-0039-1768	Press/Support Tube long Ø68	Ø68	Ø60	KL-0039-1788	Press/Support Tube long Ø88	Ø88	Ø80
KL-0039-1770	Press/Support Tube long Ø70	Ø70	Ø62	KL-0039-1790	Press/Support Tube long Ø90	Ø90	Ø82
KL-0039-1772	Press/Support Tube long Ø72	Ø72	Ø64				

Note:
For further information order single brochure!

Accessories

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1802	Centring tube long Ø27.5	Ø27.5	Ø20.5	KL-0039-1803	Centring tube long Ø29.7	Ø29.5	Ø22



KL-0039-010 Wheel Bearing Puller Tool Set
with hydr. cylinder 17 t.

Suitable for VW-Audi, BMW, Ford, Seat, Skoda, Opel etc.

This tool set allows a quick, precise and safe wheel bearing removal and installation. Very stubborn or rusted wheel bearings are easily extracted with the tool set **KL-0039-0100**.

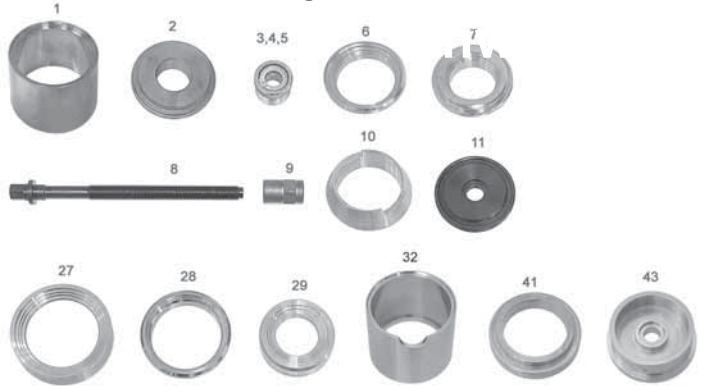
This tool set can be integrated with other components of the **KL-0039-.. Series** as e.g. centering rings, thrust pads, pressure and support sleeves in order to make the wheel bearing puller almost universal in its range of application (e.g. also suitable for ball joints or bushes replacement).

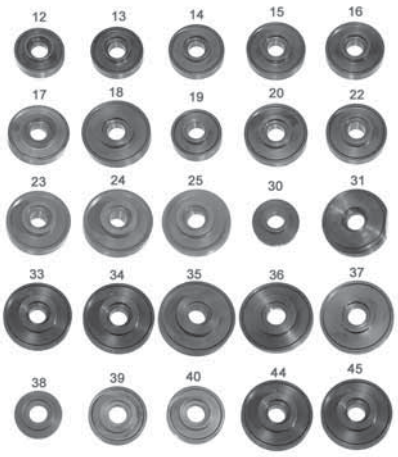
Specification:

Part No.	**Consists of:** (Tool sets are marked fat)
KL-0039-010	KL-0040-2500, **KL-0039-101, KL-0039-0101**
KL-0039-101	KL-0039-1003, KL-0039-1002, KL-0039-1920, **KL-0039-140**
KL-0039-140	KL-0039-1401, KL-0039-1402, KL-0039-1413, KL-0039-1414
KL-0039-0101	KL-0039-1260, KL-0039-1264, KL-0039-1268, KL-0039-1272, KL-0039-1274, KL-0039-1280, KL-0039-1282, KL-0039-1285, KL-0039-1334, KL-0039-1338, KL-0039-1339, KL-0039-1340, KL-0039-1341, KL-0039-1342, KL-0039-1343, KL-0039-1345

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Universal Wheel Bearing Puller





3

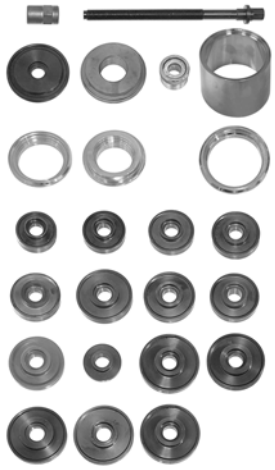
The table shows the Contents of each Tool set. Design changes reserved.

Pos.	Part-No.	Description / Car Manufacturer / Part-No.	Universal Set	Base Set and jap. Cars	Base Set	Jap. Cars	VW-Audi	Update Kit for VW-Audi	Opel	Fiat	Mercedes (W124/201)	Peugeot	Citroën	Renault	Ford	Honda	Mazda	Mitsubishi	Nissan	Toyota	Update Kit for Toyota	Subaru	Austin-Maestro	BMW
			KL-0040-51 K	KL-0040-5 H	KL-0040-3	KL-0040-6	KL-0040-31 D	KL-0040-41 D	KL-0040-32 A	KL-0040-33 B	KL-0040-34	KL-0040-35 A	KL-0040-36	KL-0040-37 B	KL-0040-39 A	KL-0040-311	KL-0040-312	KL-0040-313	KL-0040-314	KL-0040-315 A	KL-0040-415	KL-0040-316	KL-0040-328	KL-0040-350
1	KL-0040-3001	Housing	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
2	KL-0040-3002	Bearing Cover	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
3	KL-0040-3003	Bearing Insert	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
4	KL-0040-3004	Axle Bearing	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
5	KL-0040-3005	Snap Ring SB35	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
6	KL-0040-3006	Stepper Ring No. 1	•	•	•	•	•		•	•							•	•	•			•		•
7	KL-0040-3007	Stepper Ring No. 2	•	•	•	•	•		•	•	•	•	•	•	•	•	•						•	•
8	KL-0040-3008	Spindle	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
9	KL-0040-3009	Actuating Nut	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•
10	KL-0040-3010	Adaptor Ring	•	•	•							•		•								•		
11	KL-0040-3011	Centring Disc	•	•	•	•	•				•		•			•								
12	KL-0040-3012	Pressure Disc No.1	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•			•	•
13	KL-0040-3013	Pressure Disc No.2	•	•	•		•		•	•				•										•
14	KL-0040-3014	Pressure Disc No.3	•	•	•	•	•			•					•	•	•		•	•			•	
15	KL-0040-3015	Pressure Disc No.4	•	•	•	•	•		•		•			•	•		•		•			•		•
16	KL-0040-3016	Pressure Disc No.5	•	•	•							•	•	•					•			•		•
17	KL-0040-3017	Pressure Disc No.6	•	•	•	•	•		•	•		•					•		•					•
18	KL-0040-3018	Pressure Disc No.7	•	•	•	•	•					•	•	•				•						•
19	KL-0040-3019	Pressure Disc No.8	•	•	•	•				•		•		•		•								
20	KL-0040-3020	Pressure Disc No.9	•	•	•		•								•								•	
22	KL-0040-3022	Pressure Disc No.10	•	•		•	•	•								•	•		•	•				
23	KL-0040-3023	Pressure Disc No.11	•	•		•										•				•				
24	KL-0040-3024	Pressure Disc No.12	•	•		•										•								
25	KL-0040-3025	Pressure Disc No.13	•	•		•	•	•								•								
27	KL-0040-3027	Steppted Ring No. 3	•	•		•										•	•							•
28	KL-0040-3028	Stepped Ring No. 4	•	•		•	•	•	•										•	•			•	
29	KL-0040-3029	Steppted Ring No. 5	•	•		•								•		•	•	•	•	•				
30	KL-0040-3030	Adaptor Disc	•				•	•	•	•										•	•	•		•
31	KL-0040-3031	Centring Disc No. 2	•																			•		•
32	KL-0040-3032	Housing	•								◊¹			•						•	•			
33	KL-0040-3033	Pressure Disc No. 14	•				•	•																
34	KL-0040-3034	Pressure Disc No. 15	•				•	•																
35	KL-0040-3035	Pressure Disc No. 16	•								◊¹									•	•			
36	KL-0040-3036	Pressure Disc No. 17	•				•	•												•	•			
37	KL-0040-3037	Pressure Disc No. 18	•				•	•							•									
38	KL-0040-3038	Pressure Disc No. 19	•							•												•		
39	KL-0040-3039	Pressure Disc No. 20	•																			•		
40	KL-0040-3040	Pressure Disc No. 21	•							•												•		
41	KL-0040-3041	Stepped Ring No. 6	•							•														
42	KL-0040-3042	Adaptor Ring	•											•										
43	KL-0040-3043	Centring Disc No. 3	•																	•	•			
44	KL-0040-3044	Pressure Disc No. 22	•				•	•							•									
45	KL-0040-3045	Pressure Disc No. 23										•												
	KL-0040-0050	Storable Tray		•																				
	KL-0040-2500	Hydraulic Cylinder	•																					
	KL-0040-2512	Pull Spindle	•																					

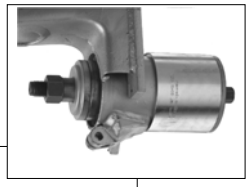
◊¹ =Accessory for Mercedes W140 and 4-matic

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KL-0040-31 D



VW-Audi, Ford, Opel, Seat, Škoda





KL-0040-3 K



KL-0040-5 H



KL-0040-51 K



KL-0040-25

KL-0040-2500



KL-0040-2512

Universal



Note:
An hydraulic pump (see Chapter 4) will be required to drive *the **KL-0040-2500***

KL-0040-31 D Wheel Bearing Puller

Suitable for **VW - Audi, Ford, Opel, Seat and Škoda**
e.g. Audi A3, A4, A6; VW Golf IV, Passat, Sharan, T4 etc.

The use of further pressure pieces makes it also suitable for BMW, Fiat, Citroën, Mercedes, Peugeot, Renault and Japanese vehicles.

This tool set allows the quick and correct replacement of wheel bearings on built-in axle without damaging the new wheel bearing.

Time savings: More than one hour for each wheel bearing.

Composition: see page 3.1-05

KL-0040-3 K Wheel Bearing Puller

Includes the Set **KL-0040-3** and the Case **KL-0040-3021** (450 x 365 x 140 mm).

Composition: see Page 3.1-05

Application: VW-Audi, Opel, Fiat, Seat, Mercedes, Peugeot, Citroën, Renault and Ford.

KL-0040-5 H Wheel Bearing Puller

Consists of all parts listed in the Table on page 3.1-05 and the Storage Tray **KL-0040-0050** (750 x 440 x 40 mm).

Application: VW-Audi, Opel, Fiat, Seat, Mercedes, Peugeot, Citroën, Renault, Ford, Honda, Rover, Mazda, Mitsubishi, Nissan, Toyota and Austin Maestro.

KL-0040-51 K Wheel Bearing Puller

Consists of all parts listed in the Table on page 3.1-05, the Pairs of Press Bolts **KL-0105, KL-0106, KL-0107** and Plastic Case with roller-wheels (780 x 450 x 175 mm).

Universal application.

KL-0040-25 Hydraulic-Cylinder (17 t)

With Pulling Spindle KL-0040-2512.

When the bearing is seized in the bearing housing, it is necessary to pull the bearing out or to pull it in with the hydraulic cylinder **KL-0040-25** in conjunction e.g. with **KL-0040-3**. As the mechanic spindle is overloaded due to pulling force.
(The hydraulic cylinder is supplied without coupling).

Note: Technical information and further hydraulic accessories are available at Chapter 4.

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KL-0040-61 A

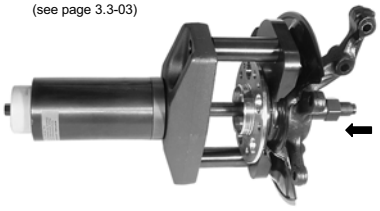
Mercedes



KL-0040-610 A



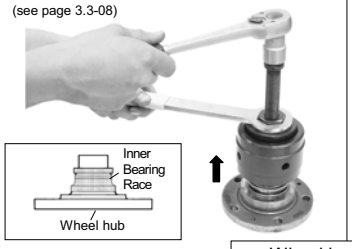
Wheel hub extraction with **KL-0330-12**
(see page 3.3-03)



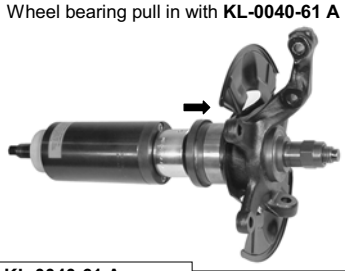
Wheel bearing extraction with **KL-0040-61 A**



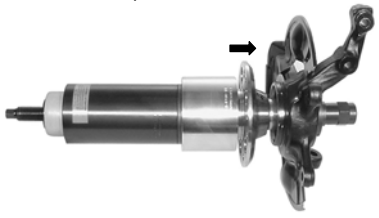
Inner racer extraction with **KL-0042-92**
(see page 3.3-08)



Wheel bearing pull in with **KL-0040-61 A**



Wheel hub pull in with **KL-0040-61 A**



KL-0040-61 A Wheel Bearing Puller Tool Set

Suitable for Mercedes:
W124, W129, W140, W163, W168, W169, W201, W202, W203, W210, W211, W245 and W638.

At last, an hydraulic Wheel Bearing Tool has been launched which covers all Mercedes passenger cars fitted with cassette wheel-bearings.

Removal and replacement of the wheel bearing is performed on the vehicle within a few minutes.

Assembly of the Hub uses the same tool.

- Removal of the Hub requires the newly-developed **KL-0330-12 (or KL-0330-121)** Hub Extractor. (see Page 6).

Note:

- Wheel bearing puller tool set **KL-0040-61 A** is based on tool set **KL-0040-61** together with No. 4 centring disc **KL-0040-3046**. The range of applications now includes the new Mercedes **A Class (W169)** and **B Class (W245)**.
- On the Mercedes **E Class (W211)** a bolted bearing is installed at the rear axle. In this case, tool set **KL-0040-61** or **KL-0040-61 A** and wheel hub puller **KL-0330-12** will be needed for **removal and installation of the wheel hub**.

Advantages:

⇒ The wheel bearing tool is universal in its applications.

⇒ The tool set can also be used on other vehicles if additional thrust blocks are obtained.

⇒ All spare parts can also be obtained individually.

⇒ Wheel bearings can be replaced accurately ***on the vehicle*** within just a few minutes.

⇒ Hollow-piston hydraulic cylinder **KL-0040-2500** can be used to remove and install propeller shafts, wheel hubs, support joints and silentbloc-type bushings.

KL-0040-610 A Wheel Bearing Puller Tool Set
(without hydr. Drive)

As **KL-0040-61 A.**
if Hydraulic Cylinder **KL-0040-2500**, the Adaptor **KL-0040-2551**, the Spindle **KL-0040-2512** and the Nut **KL-0040-3009** are already available.

Contents:

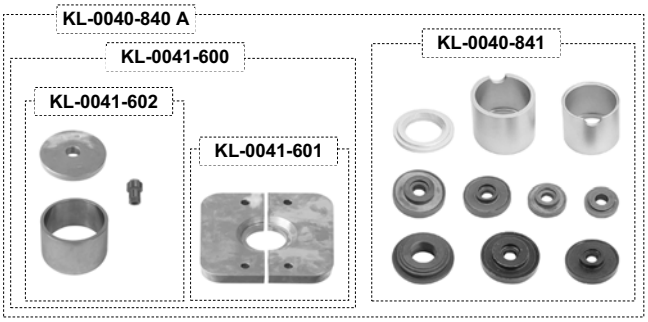
Part No.	Description	Qty.
KL-0040-610 A	**Wheel Bearing Puller Tool Set (without hydr. Drive)**	**1**
consists of:		
KL-0040-6101	Housing	1
KL-0040-6102	Support ring	1
KL-0040-6103	Centring Disc	1
KL-0040-6104	Pressure Disc	1
KL-0040-6105	Pressure Disc	1
KL-0040-6106	Pressure Disc	1
KL-0040-3012	Pressure Disc No. 1	1
KL-0040-3039	Pressure Disc No. 20	1
KL-0040-3046	Centring Disc No. 4	1

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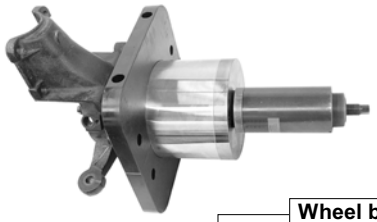
KL-0040-84 A

Peugeot, Fiat





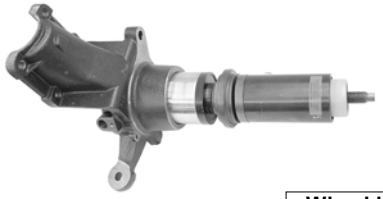
Wheel hub extraction



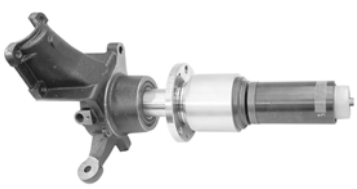
Wheel bearing extraction



Wheel hub pull in



Wheel bearing pull in



Note: To drive the hydraulic cylinder KL-0040-2500 is a hydraulic pump (see chapter 4) necessary.

KL-0040-84 A Wheel Bearing / Hub Puller
with hydraulic cylinder (17 t.)

Suitable for Peugeot Boxer II and Fiat Ducato ('02 onwards) Wheel Bearings with the diameters:

outer-Ø 84 mm / inner Ø 49 mm or
outer-Ø 90 mm / inner Ø 55 mm.

Application:

For removing and installing the wheel hub and for fast and correct replacement of the wheel bearing avoiding damages, without the need to remove the axle.

Time savings: more than one hour for each wheel bearing.

The Wheel Bearing Puller **KL-0041-841**in combination with the hydraulic cylinder **KL-0040-2500,** the Spindle **KL-0040-2512** and the Nut **KL-0040-3009** allows removing the hub correctly with a force up to 17 tons.

Very stubborn wheel hubs may be pressed out under a bench press in combination with the chuck jaws **KL-0041-601**.

Note:
It has been experienced, that for pressing out the wheel hub on some cars forces up to 40 tons may be required.

Specification:

Part No.	Description	Qty.
KL-0040-84 A	**Wheel Bearing / Hub Puller with hydraulic cylinder (17 t.)**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder (17 t.)	1
KL-0040-2512	Spindle M 20	1
KL-0040-3009	Nut M 20	1
KL-0040-840 A	**Wheel Bearing / Hub Puller without Drive**	**1**

Part No.	Description	Qty.
KL-0040-840 A	**Wheel Bearing / Hub Puller without hydraulic cylinder**	**1**
consists of:		
KL-0041-600	**Hub Puller without Drive**	**1**
KL-0040-841	**Wheel Bearing Puller without Drive**	**1**

Part No.	Description	Qty.
KL-0041-600	**Hub Puller without Drive**	**1**
consists of:		
KL-0041-601	**Chuck jaw pair**	**1**
KL-0041-602	**Update Kit**	**1**

Part No.	Description	Qty.
KL-0040-841	**Wheel Bearing Puller without Drive**	**1**
consists of:		
KL-0040-3002	Bearing housing	1
KL-0040-3030	Adaptor disc	1
KL-0040-3032	Housing	1
KL-0040-3037	Pressure disc Nr. 18	1
KL-0040-3039	Pressure disc Nr. 20	1
KL-0040-3045	Pressure disc Nr. 23	1
KL-0040-3047	Stepper ring Nr. 7	1
KL-0040-3048	Housing	1
KL-0040-3049	Pressure disc Nr. 24	1
KL-0040-3050	Pressure disc Nr. 25	1

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KL-0040-80

Renault Master
Opel Movano



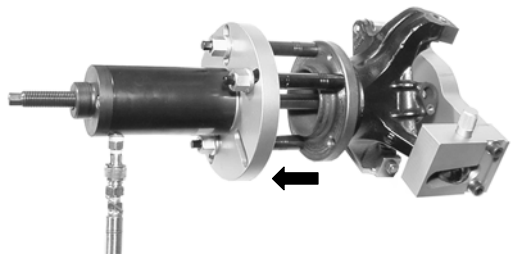
KL-0040-801



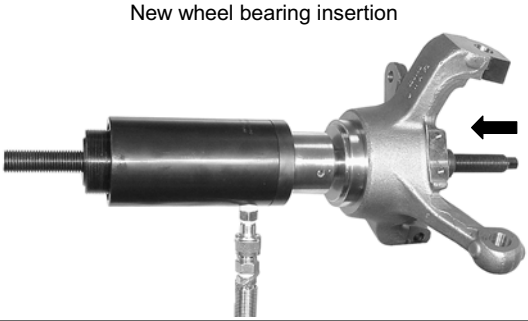
KL-0040-800



Wheel hub extraction



New wheel bearing insertion



KL-0040-80 Wheel Bearing Puller
Opel Movano, Renault Master

Suitable for:
Opel Movano / Renault Master October 1997 - Jan. 2001
Opel Movano / Renault Master onwards January 2001

⇒ Drive Shaft extraction.

⇒ Hub extraction and replacement.

⇒ Wheel Bearing extraction and replacement.

The special design of this new Wheel Bearing Tool allows stubborn Drive Shafts, Wheel Hubs and Bearings to be extracted and inserted hydraulically.

It makes no difference if the brake disc is mounted on the inner or the outer face of the Hub flange.

Also the irregular profile of the inner face of the Hub has no effect on the extraction and insertion of the Wheel Bearing.

Removal and replacement of the Hub and Wheel Bearing takes approximately 15 Minutes per side.

Part No.	Description	Qty.
KL-0040-80	**Wheel Bearing Puller**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17t	1
KL-0040-801	**Wheel Bearing Puller Tool without drive**	**1**

KL-0040-801 Wheel Bearing Puller without drive

As **KL-0040-80,** if the Hydraulic Cylinder **KL-0040-2500** is already available.

Part No.	Description	Qty.
KL-0040-801	**Wheel Bearing Puller without drive**	**1**
consists of:		
KL-0040-2551	Adaptor M42x2 auf Ø30	1
KL-0040-2547-1	Pull spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0040-800	**Wheel Bearing Puller without Hydr. Cyl.**	**1**

KL-0040-800 Wheel Bearing Puller without Hydr. Cyl.

As **KL-0040-80,** if the Hydraulic Cylinder **KL-0040-2500**, the press spindle **KL-0040-2547-1** and the clamping nut **KL-0040-3009** are already available.

Part No.	Description	Qty.
KL-0040-800	**Wheel Bearing Puller without Hydr. Cyl.**	**1**
consists of:		
KL-0040-8001	Mounting bridge	1
KL-0040-8002	Mandrel, conical	1
KL-0040-8003	Special hex. screw M12x1,25 x 45	2
KL-0040-8004	Distance bolt 50 mm, M12x1,25	2
KL-0040-8005	Mounting nut M12x1,25	2
KL-0040-8006	Adaptor 2 1/4"-14 UNS auf Ø20,5	1
KL-0040-8007	Adaptor 2 1/4"-14 UNS	1
KL-0040-8008	Distance bolt 64 mm, M12x1,25	2
KL-0040-3036	Pressure disc Nr. 17	1
KL-0040-3045	Pressure disc Nr. 23	1
KL-0040-3046	Centring disc Nr. 4	1
KL-0174-330	Puller Pöate size 3 (5-hole)	1
KL-0174-765	Puller bolt type M, M16x1,5 (l=100)	3
KL-0174-724	Puller bolt type B, M14x1,5 (l=100)	3
KL-0174-701	Hex. shoulder nut M14	3

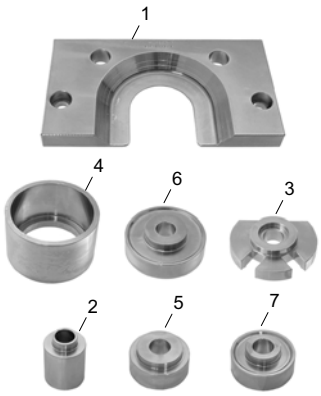
Accessories:

KL-0040-8050 Wood Storage Tray (empty)

(For a straight storage of the wheel bearing puller set **KL-0040-80**)

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KL-0430-1



Opel Vivaro / Renault Trafic

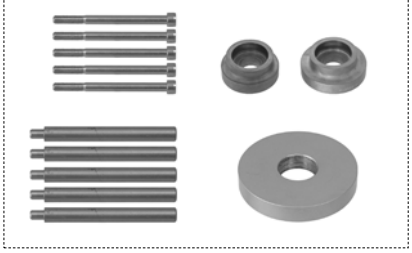


KL-0040-86

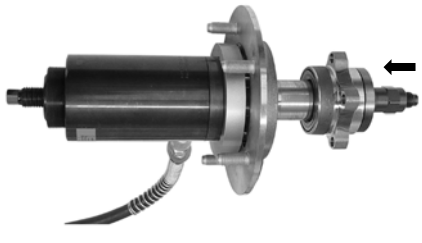
Ford Transit



KL-0040-860



Mounting the wheel bearing onto the hub.



Note:
Technical data of the Hydraulic Cylinder see page 4-04 and 4-05.

KL-0430-1 Wheel Bearing Tool Set
(German Utility Model)

Suitable for: Opel Vivaro / Renault Trafic front axle
⇒ Removal and replacement of Hub and Wheel Bearing

Because of the specific design of this vehicle it is an advantage to remove the Hub Carrier assembly from the vehicle and to remove and replace the Hub and the Bearing using the hydraulic bench press **KL-0145-80**.

It is important to note that the Wheel Bearing must be assembled with the built-in ABS sensor facing towards the inner side of the Hub Carrier assembly.

The Press Tool **KL-0430-1003** is specifically designed to prevent damage to the ABS sender-ring which is built into the inner side of the wheel bearing housing.

Advantages:

- Precise removal and replacement of the Hub and Wheel Bearing without risk of damage to the ABS sender.
- Time savings of up to 1 hour.

Specification:

Pos.	Part No.	Description	Qty.
	KL-0430-1	**Wheel Bearing Tool Set**	**1**
	consists of:		
1	KL-0430-1001	Base plate Hub removal	1
2	KL-0430-1002	Drift Hub removal	1
3	KL-0430-1003	Centring Disc Hub removal (support)	1
4	KL-0430-1004	Housing RA Wheel Bearing extraction/insertion FA Wheel Bearing extraction, ABS ring insertion	1
5	KL-0430-1005	Press plate FA Wheel Bearing extraction, Hub insertion	1
6	KL-0430-1006	Press plateFA Wheel Bearing insertion	1
7	KL-0430-1007	Press plate RA Wheel Bearing extraction/insertion	1

KL-0040-86 Wheel Bearing Tool Set
with Hydraulic Cylinder (28 t.)

Suitable for Ford Transit 2002 onwards.

To renew the brake disc or wheel bearing, the wheel hub must be pulled out of the wheel bearing housing together with the hub and the brake disc.

The wheel bearing can be removed or installed within a few minutes, without removing the suspension strut.

KL-0040-860 Wheel Bearing Tool Set (without Hydraulic Cylinder)

As **KL-0040-86**
if hydraulic cylinder (28 t) **KL-0040-2800**, spindle **KL-0040-2812-1** and nut **KL-0040-2812-2** are already available.

Specification:

Part No.	Description	Qty.
KL-0040-850	**Wheel Bearing Tool Set (without Hydraulic Cylinder)**	**1**
consists of:		
KL-0040-8501	Pressure Ring	1
KL-0040-8236-4	Screw M10 x 140	5
KL-0040-8503	Mandrel	5
KL-0040-8601	Pressure disc Ø 77 mm	1
KL-0040-8602	Pressure disc Ø 68 mm	1

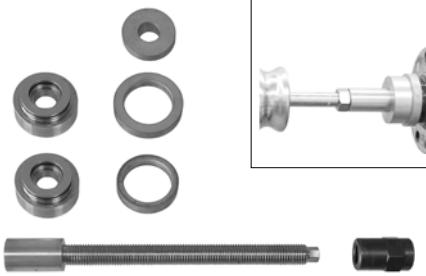
Note: To drive the hydraulic-cylinder KL-0040-2500 or KL-0040-2800 a hydraulic pump is necessary (see chapter 4).

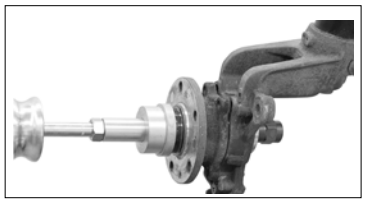
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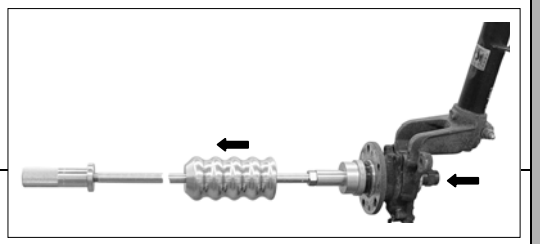
KL-0049-320

VW Golf V





KL-0049-31





KL-0179-11



Universal



KL-0179-12



KL-0049-320 Wheel Bearing Puller

Suitable for VW Golf V.

The flange-mounted compact wheel bearing is easily and trouble-free extracted from the wishbone by using the wheel bearing puller **KL-0049-320** together with the slide hammer **KL-0049-31.**

It is not necessary to remove the wishbone.

Specification:

Part No.	Description	Qty.
KL-0049-320	**Wheel Bearing Puller**	**1**
consists of:		
KL-0049-3200	Pull spindle (Mounting thread M18)	1
KL-0039-1002	Location adaptor for Actuating Nut (M20 with O-Ring)	2
KL-0039-1267	Pressure Ring Ø67	1
KL-0039-1351	Centring Ring Ø51	1
KL-0039-1260	Pressure Ring Ø60	1
KL-0040-3009	Actuating Nut	1

KL-0049-31 Slide hammer

For Half-Shafts, Drive Shafts, Brake Discs and Brake drums, etc. including Adaptor 2 ¼“-14UNS to M18 suitable for the **KL-0174-Series.**

Hammer weight: .....4,8 kg
Length:.....690 mm
Adaptor thread:.....M18

KL-0179-11 Bearing Grease Arrangement

Fast, Efficient, Universal.

Simply place the bearing between the cones, tighten, and apply grease through the fitting on the end of the threaded shaft. Forces out old grease and evenly injects fresh grease.

Cone-Ø: ..... 114 mm
Weight: .....460 g

KL-0179-12 Bearing Grease Arrangement

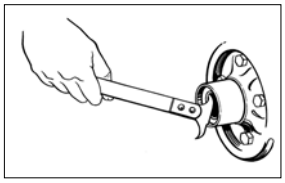
Application as **KL-0179-11**.

Cone-Ø:: .....165 mm

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KL-0178-10





KL-0192-5 / KL-0192-6

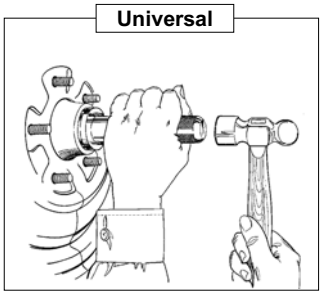






KL-0179-51 K





KL-0040-91





KL-0178-10 Seal Puller

For Oil and Grease Seals.

Simply insert the tip of the tool behind the oil or grease seal, press and pull. Leverage works for you. Two size tips reach in and fit nearly all seal applications.

Weight:..... 400 g

KL-0192-5 Circlip Pliers
Ø 40-100 mm

Due to the 45° angled tips, this tool is ideal for inside safety clips on gearbox repairs.

TipØ ..... 2,5 mm
Length: ..... 220 mm
Weight: ..... 220 g

KL-0192-6 Circlip Pliers
Ø 85-165 mm

The specially designed tips (angled at 45°) allows problem free removal and installation of inner safety clips on ***wheel bearing repairs.***

TipØ ..... 3 mm
Length: ..... 310 mm
Weight: ..... 410 g

KL-0179-51 K Bearing Race and Seal Assembly Tool Set Ø 40-81 mm

Makes it easier to insert bearing race and seals without damage to race and axle housing. This master set includes nine disc sizes to fit most standard wheel bearings. Turn discs over to drive seals. Packages in convenient clam shell for storage.

The set contains a Drift and 9 Pressure Discs [Ø 40 mm; Ø 44 mm; Ø 50 mm; Ø 59 mm; Ø 63 mm; Ø 65 mm; Ø 72 mm; Ø 76 mm; Ø 81 mm].

The Tool is delivered in a plastic case.

Weight:..... 1360 g

KL-0040-91 Bearing Race Assembly Tool Set

The bearing tool simplifies the assembly of the outer bearing race of taper-roller bearings. The set contains Drift **KL-0040-3090** and 10 Pressure Discs with Ø of 40/25mm, 40/32mm, 42mm, 42/32,5mm, 47/37,5mm, 49,5mm, 49,5/48mm, 50/41,5mm, 52/41mm, 53,5mm.

The Drift **KL-0040-3090** also fits Wheel Bearing Tool Kits **KL-0040-3** to **KL-0040-5.**

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Wheel Hub Bearing unit *extraction* with the new Puller KL-0041-38.

Wheel Hub Bearing unit

German Utility Model



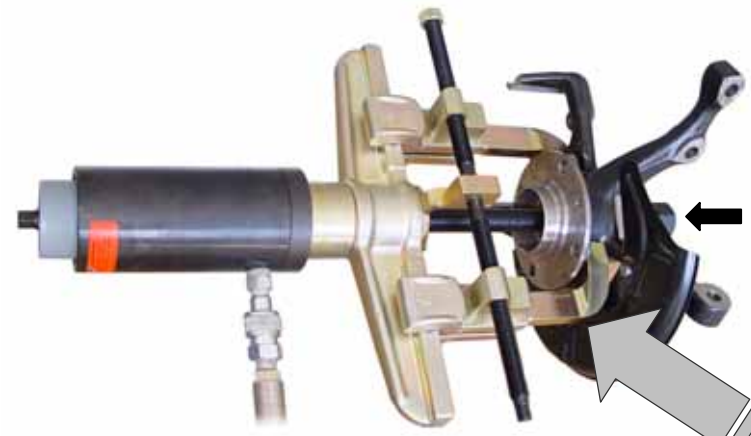
The problem with the Extraction:

A very high pulling force is necessary to extract a wheel hub bearing unit with locking crown. The resistance of the safety locking crown has to be overcome both in case of rust and corrosion and during bearing extraction. This means that during the extraction the locking teeth of the locking crown break.

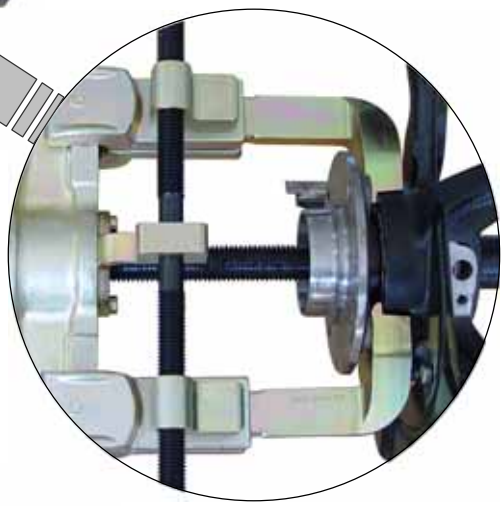
Wheel bearing pullers provided with a mechanic spindle are not suitable to perform this operation due to high pulling force.

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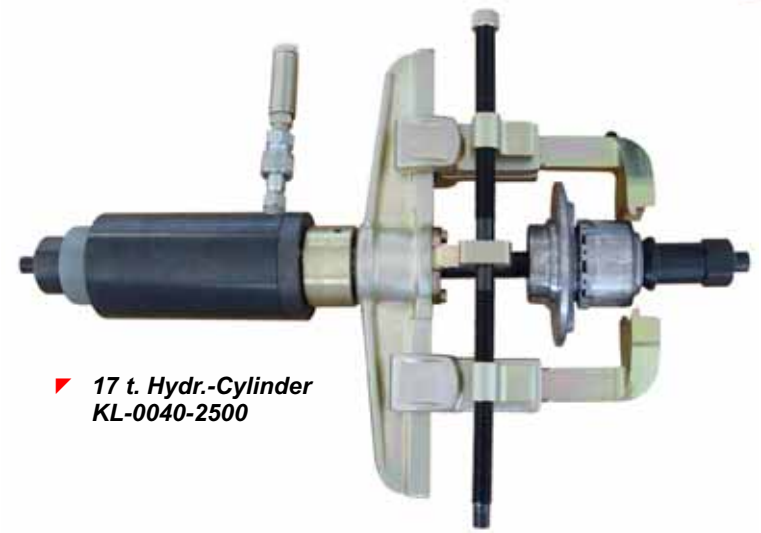
Extract wheel hub bearing unit with the wheel hub puller tool KL-0041-38



- ***Universal suitable for hubs-Ø till 250 mm***
- ***Adjusting spindle preattunement allows a problemless installation.***



- ***Universal***
- ***Specific***
- ***Easy***



- ***17 t. Hydr.-Cylinder KL-0040-2500***

- ***The two support surfaces and spacer plates offer universal supporting possibilities.***
- ***Easy handling and easy to operate.***

Further information see page 3.3-01.

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Wheel Hub Bearing unit *insertion* with the new tool set KL-0041-....

German Utility Model

The problem with the Insertion:

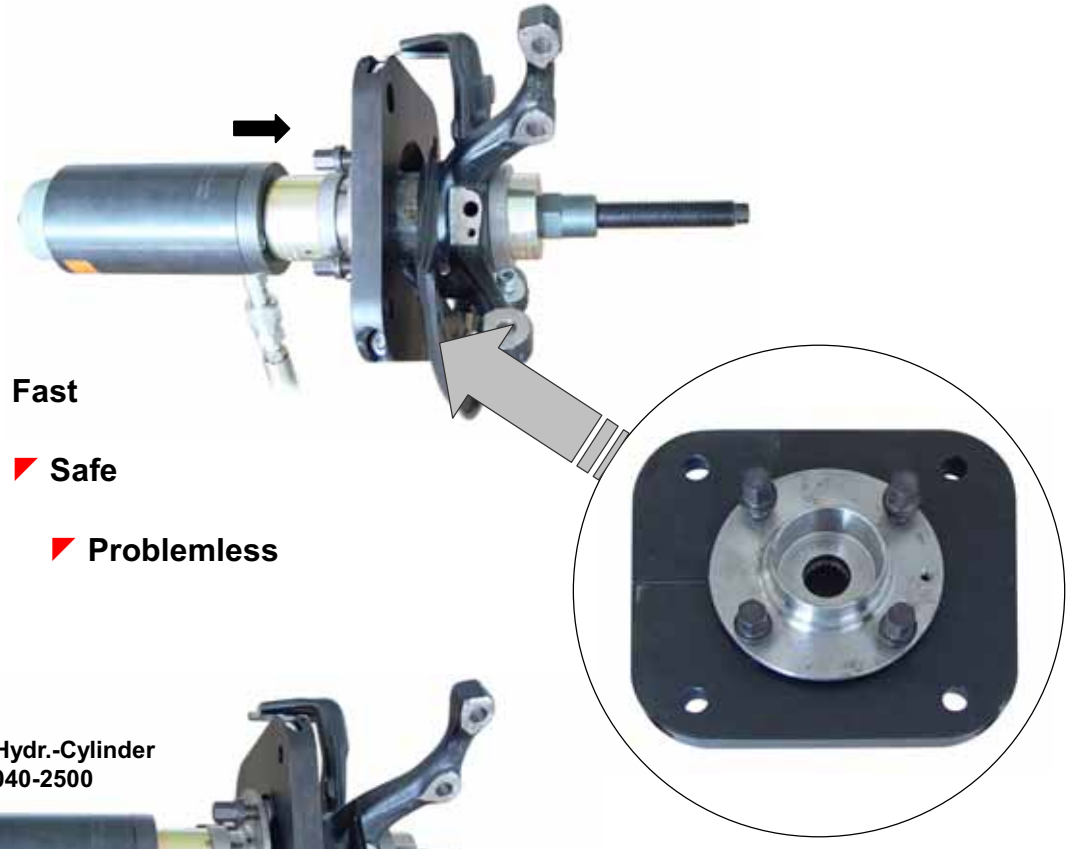
A particular feature of the wheel hub bearing unit is that the external safety ring that before had a safety function, has been replaced by a locking crown fixed on the wheel bearing of the wheel hub bearing unit.
The wheel hub and the wheel bearing are no more separated but a complete unit.
This means that the wheel bearing can no more as in the past be settled with a pressure piece under a press or with a standard wheel bearing tool. As it is well known, when pressing a bearing into a bearing housing, only the external bearing ring can be pressed. The non-observance will destroy the bearing. Only an appropriate special tool can press the wheel hub only in order to press the bearing into the bearing housing. But this procedure will damage the new bearing on the wheel hub. To avoid this kind of damage we have designed a special tool that is placed behind the wheel hub to the bearing external ring, on the locking crown. Consequently the wheel bearing is pressed into the external bearing ring and the locking crown locks in place regularly. By using the hydraulic cylinder **KL-0040-2500** the insertion of new wheel hub bearing units is performed.

Wheel Hub Bearing unit



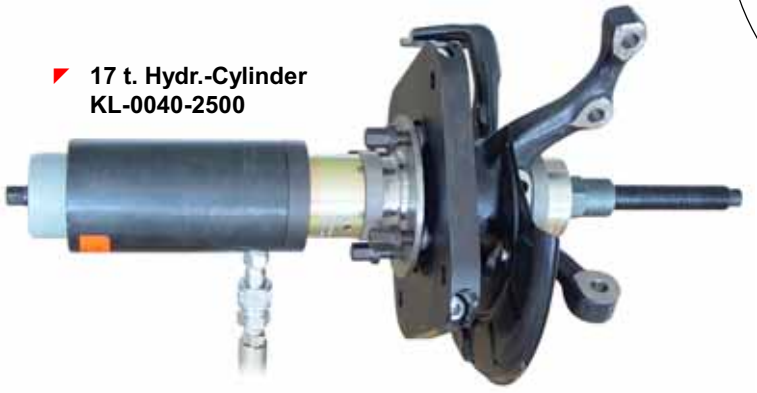
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Insert wheel hub bearing unit with the wheel bearing tool KL-0041-4.. Series



- Fast
- Safe
- Problemless

- 17 t. Hydr.-Cylinder KL-0040-2500



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KL-0041-42



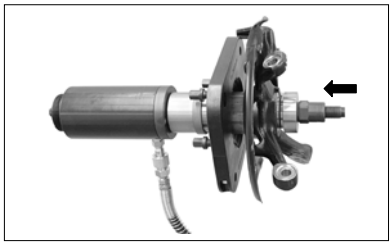
Bearing-Ø 62 mm

KL-0041-420



KL-0041-421





Wheel hub bearing unit



Locking ring

Wheel hub bearing unit extraction with **KL-0041-38**



KL-0041-43

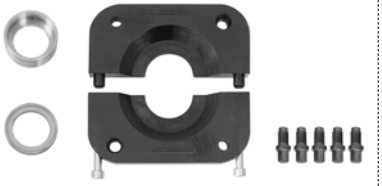


Bearing-Ø 66 mm

KL-0041-430



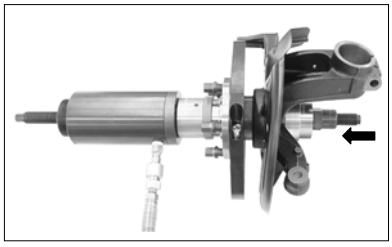
KL-0041-431



Wheel hub bearing unit



Locking ring



KL-0041-42 Wheel Bearing Puller Tool Set
with Hydraulic Cylinder (German Utility Model)

Suitable for vehicles with bearing-Ø 62 mm
e.g. VW Lupo etc.

For a fast and safe insertion of the wheel hub bearing unit.

KL-0041-420 Wheel Bearing Tool Set
without Hydraulic Cylinder

As **KL-0041-42** if Hydraulic Cylinder **KL-0040-2500** is already available.

Specification (KL-0041-420):

Part No.	Description	Qty.
KL-0039-1002	Clamping nut (M20) retaining adaptor with O-ring	1
KL-0039-1003	Hydraulic Cylinder retaining adaptor with O-ring	1
KL-0040-2547-1	Pull spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0041-421	**Supplement kit Lupo Ø62**	**1**

Part No.	Description	Qty.
KL-0041-421	**Supplement kit Lupo Ø62**	**1**
consists of:		
KL-0041-4200	Clamping jaw pair Ø62	1
KL-0041-3921	Pressure screw M12x1.5	4
KL-0039-1265	Pressure ring Ø65	1
KL-0039-1359	Centring ring Ø59	1
KL-0039-1273	Pressure ring Ø73	1

Note: The wheel hub puller **KL-0041-38** will be required to extract the wheel hub/bearing unit. (see page 3.3-01)

KL-0041-43 Wheel Bearing Puller Tool Set
with Hydraulic Cylinder (German Utility Model)

Suitable for vehicles with bearing-Ø 66 mm
e.g. VW Polo'02 onwards, Seat Fabia '00 onwards etc.

For a fast and safe insertion of the wheel hub bearing unit.

KL-0041-430 Wheel Bearing Tool Set
without Hydraulic Cylinder

As **KL-0041-43** if Hydraulic Cylinder **KL-0040-2500** is already available.

Specification (KL-0041-430):

Part No.	Description	Qty.
KL-0039-1002	Clamping nut (M20) retaining adaptor with O-ring	1
KL-0039-1003	Hydraulic Cylinder retaining adaptor with O-ring	1
KL-0040-2547-1	Press spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0041-431	**Supplement kit Ø66 mm**	**1**

Part No.	Description	Qty.
KL-0041-431	**Supplement kit Ø66 mm**	**1**
consists of:		
KL-0041-4300	Clamping jaw pair Ø66	1
KL-0041-3931	Pressure screw M14x1.5	5
KL-0039-1265	Pressure ring Ø65	1
KL-0039-1668	Press/support tube short Ø68	1

Note: The wheel hub puller **KL-0041-38** will be required to extract the wheel hub/bearing unit. (see page 3.3-01)

An hydraulic pump (see Chapter 4) will be required to drive the **KL-0040-2500.**

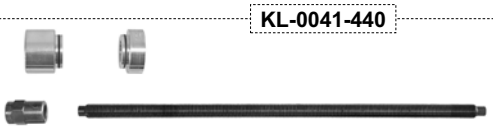
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KL-0041-44

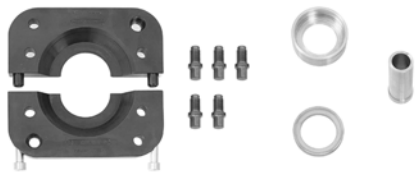
Bearing-Ø 72 mm

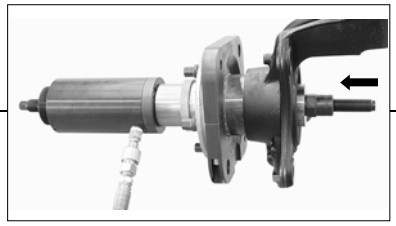


KL-0041-440



KL-0041-441

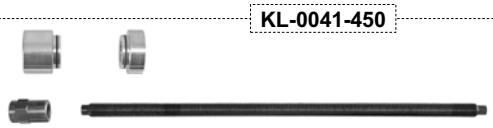




KL-0041-45

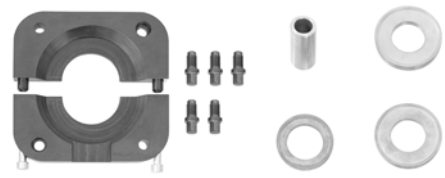


KL-0041-450



Bearing-Ø 85 mm

KL-0041-451



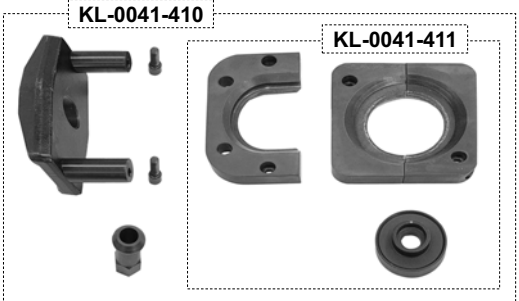
KL-0041-41

VW Touareg / Porsche Cayenne



KL-0041-410

KL-0041-411

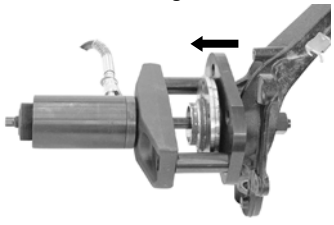


Wheel hub bearing unit



Locking ring

Wheel hub bearing unit extraction



KL-0041-44 Wheel Bearing Puller Tool Set
with Hydraulic Cylinder

Suitable for vehicles with bearing-Ø 72 mm e.g. Audi A2 '00 onwards, Seat Ibiza'02 onwards, Škoda Fabia '00 onwards and VW Polo '02 onwards etc.

For a fast and safe insertion of the wheel hub bearing unit.

KL-0041-440 Wheel Bearing Puller Tool Set
(without Hydraulic Cylinder)

As **KL-0041-44** if Hydraulic Cyl. **KL-0040-2500** is already available.

Specification (KL-0041-440): German Utility Model

Part No.	Description	Qty.
KL-0039-1002	Clamping nut (M20) retaining adaptor with O-ring	1
KL-0039-1003	Hydraulic Cylinder retaining adaptor with O-ring	1
KL-0040-2547-1	Pull spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0041-441	**Supplement kit Ø72mm**	**1**

Part No.	Description	Qty.
KL-0041-441	**Supplement kit Ø72mm**	**1**
consists of:		
KL-0041-4400	Clamping jaw pair Ø72	1
KL-0041-3931	Pressure screw M14x1.5	5
KL-0039-1802	Centring tube long Ø27.5	1
KL-0039-1265	Pressure ring Ø65	1
KL-0039-1674	Press/support tube short Ø74	1

Note: The wheel hub puller **KL-0041-38** will be required to extract the wheel hub/bearing unit. (see page 3.3-01)

KL-0041-45 Wheel Bearing Puller Tool Set
with Hydraulic Cylinder

Suitable for vehicles with bearing-Ø 85 mm; e.g. VW T5 front axle and rear axle etc.

For a fast and safe insertion of the wheel hub bearing unit.

KL-0041-450 Wheel Bearing Puller Tool Set
(without Hydraulic Cylinder)

As **KL-0041-45** if Hydraulic Cyl. **KL-0040-2500** is already available.

Specification (KL-0041-450): German Utility Model

Part No.	Description	Qty.
KL-0039-1002	Clamping nut (M20) retaining adaptor with O-ring	1
KL-0039-1003	Hydraulic Cylinder retaining adaptor with O-ring	1
KL-0040-2547-1	Pull spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0041-451	**Supplement kit Ø85mm**	**1**

Part No.	Description	Qty.
KL-0041-451	**Supplement kit Ø85mm**	**1**
consists of:		
KL-0041-4500	Clamping jaw pair Ø85	1
KL-0041-3931	Pressure screw M14x1.5	5
KL-0039-1502	Pressure ring Ø93	1
KL-0039-1803	Centring tube long Ø93	1
KL-0039-1273	Pressure ring Ø73	1
KL-0039-1289	Pressure ring Ø89mm	1

Note: The wheel hub puller **KL-0041-38** will be required to extract the wheel hub/bearing unit. (see page 3.3-01)

KL-0041-41 Wheel Bearing Puller Tool Set

Suitable for VW Touareg and Porsche Cayenne.

For a fast and safe insertion of the wheel hub bearing unit.

KL-0041-410 Wheel Bearing Puller Tool Set
(without Hydraulic Cylinder)

As **KL-0041-41** if Hydraulic Cylinder **KL-0040-2500**, the press spindle **KL-0040-2512** and the clamping nut **KL-0040-3009** are already available.

Specification (KL-0041-410)

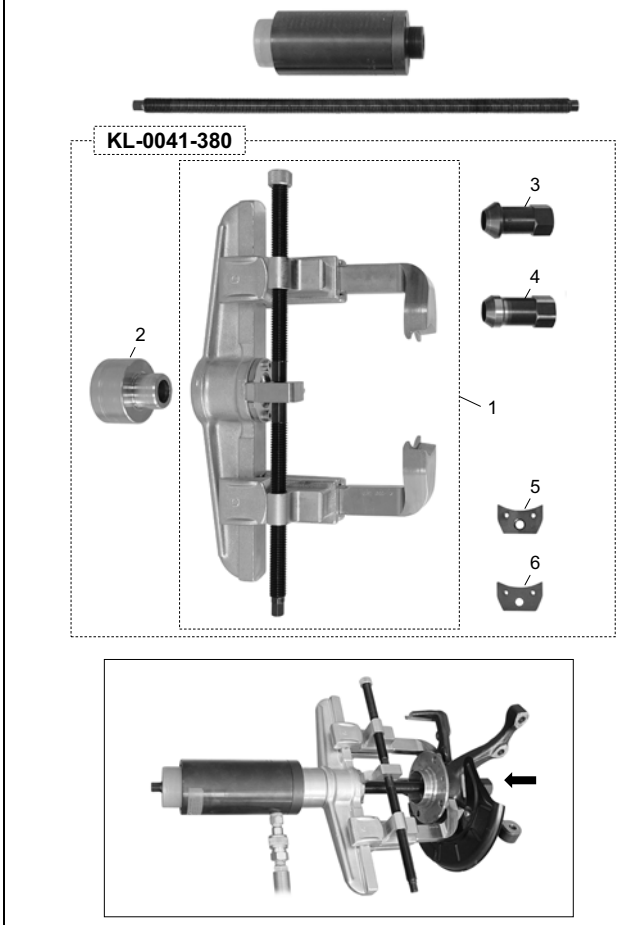
Part No.	Description	Qty.
KL-0330-0002	Distance piece	2
KL-0330-0003	Screw M12 x 30	4
KL-0330-0004	Bearing bridge	1
KL-0330-0009	Hex shoulder nut	1
KL-0041-411	**Supplement kit Touareg / Cayenne**	**1**

Part No.	Description	Qty.
KL-0041-411	**Supplement kit Touareg / Cayenne**	**1**
consists of:		
KL-0041-4110	Base plate VW Touareg / Porsche Cayenne.	1
KL-0041-4100	Clamping jaw pair	1
KL-0041-4113	Pressure disc	1

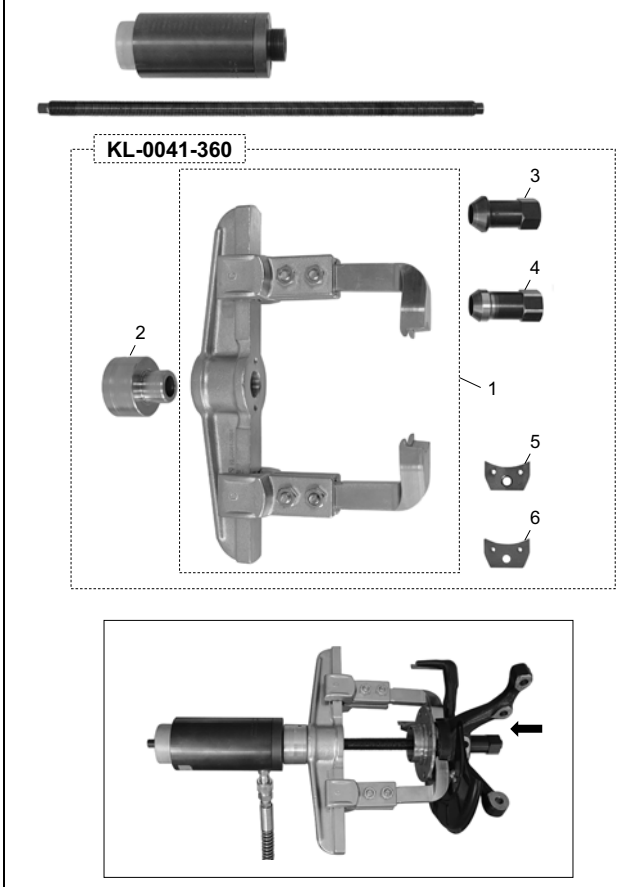
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KL-0041-38



KL-0041-36



KL-0041-38 Wheel Hub Puller
with adjusting spindle, with hydr. Cyl. (German Utility Model)

The wheel hub bearing unit or the wheel hub can be quickly, safely and precisely pulled out by using the wheel hub puller **KL-0041-38**. Thanks to the hydraulic cylinder **KL-0040-2500** even stuck, stubborn or rusty wheel hub bearing units or wheel hubs are no more a problem. Thanks to this wheel hub puller special design a variety of wheel hubs up to 250 mm diam. can be removed.

KL-0041-380 Wheel Hub Puller with adjusting spindle, without Hydraulic Cylinder

As **KL-0041-38**,
if the Hydraulic Cylinder **KL-0040-2500** and the press spindle M20 x 550 **KL-0040-2547-1** are already available.

Specification:

Pos.	Part No.	Description	Qty.
	KL-0041-380	**Wheel Hub Puller with Shift Spindle, without Hydraulic Cylinder**	**1**
	consists of		
1	KL-0041-3800	Wheel hub puller base tool with adj. spindle	1
2	KL-0041-3802	Adaptor M42x2	1
3	KL-0041-3811	Clamping nut Ø38	1
4	KL-0041-3812	Clamping nut Ø30	1
5	KL-0041-3821	Distance plate with magnet 4 mm	1
6	KL-0041-3822	Distance plate with magnet 6 mm	1

Note: The plates **KL-0041-3821 and KL-0041-3822** are used as distance and compensating plates if during the wheel hub removal you can support on the hook underside and the supporting surface is unequal.

KL-0041-36 Wheel Hub Puller
without adjusting spindle, with hydr. Cyl. (German Utility Model)

The wheel hub bearing unit or the wheel hub can be quickly, safely and precisely pulled out by using the wheel hub puller **KL-0041-38**. Thanks to the hydraulic cylinder **KL-0040-2500** even stuck, stubborn or rusty wheel hub bearing units or wheel hubs are no more a problem. Thanks to this wheel hub puller special design a variety of wheel hubs up to 250 mm diam. can be removed.

KL-0041-360 Wheel Hub Puller without adjusting spindle, without Hydraulic Cylinder

As **KL-0041-36**,
if Hydraulic Cylinder **KL-0040-2500** and the press spindle M20 x 550 **KL-0040-2547-1** are already available.

Specification:

Pos.	Part No.	Description	Qty.
	KL-0041-360	**Wheel Hub Puller without** adjusting **spindle, without Hydraulic Cylinder**	**1**
	consists of		
1	KL-0041-3600	Wheel hub puller base tool without adjusting spindle	1
2	KL-0041-3802	Adaptor M42x2	1
3	KL-0041-3811	Clamping nut Ø38	1
4	KL-0041-3812	Clamping nut Ø30	1
5	KL-0041-3821	Distance plate with magnet 4 mm	1
6	KL-0041-3822	Distance plate with magnet 6 mm	1
Accessories: (not ill.)			
	KL-0041-361	Shift unit	1

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The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

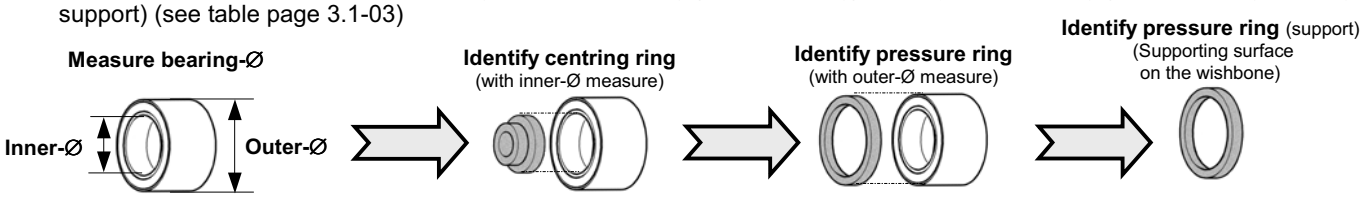
The big advantages of the new and unique bearing/bush tools are:

- **Modular system provided with a versatile hydraulic drive (KL-0040-2500), two adaptors and universally combinable centring and pressure rings as well as pressure and support sleeves.**
- **Universal field of application.**
- **Huge time and cost savings due to the easy assembling of the required tool.**

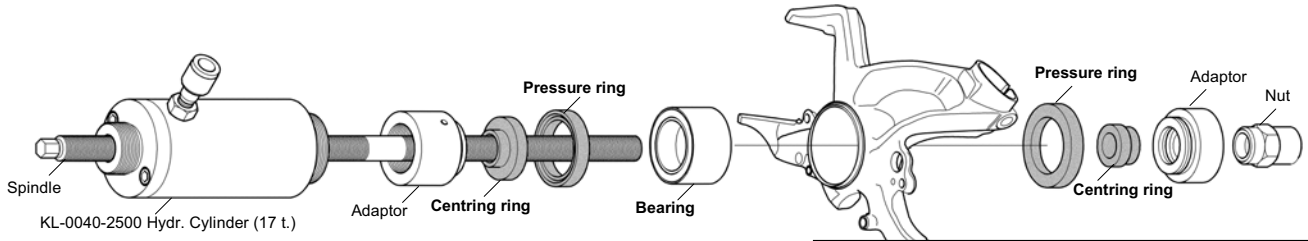
Application example: *Wheel Bearing insertion.*

(Wheel bearing extraction see page 3.1-01)

1. **Configuration of the required pieces and tool assembling:**
   Measure inner-/outer-Ø, identify centring and pressure ring (wheel bearing), identify pressure ring (wheel bearing housing support) (see table page 3.1-03)

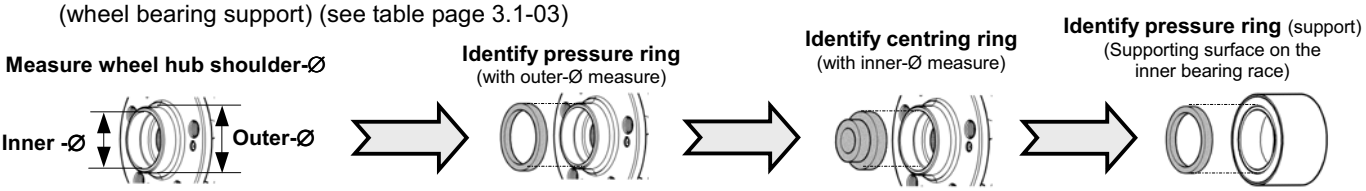


2. **Mount the tool on the wishbone and press the wheel bearing in.**

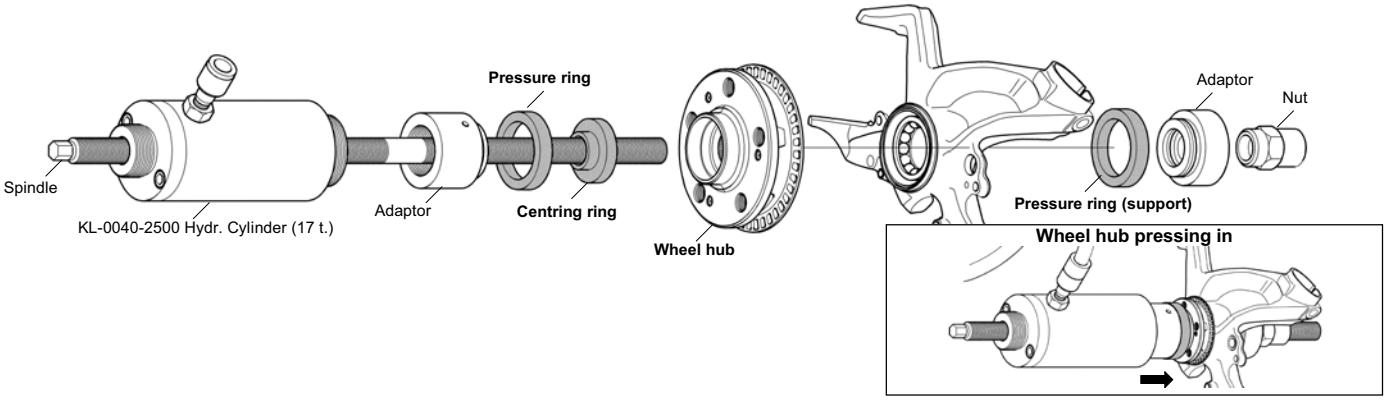


Application example: *Wheel hub insertion.*

1. **Configuration of the required pieces and tool assembling:**
   Measure wheel hub shoulder-∅, identify pressure and centring ring; measure inner bearing race-Ø identify pressure ring (wheel bearing support) (see table page 3.1-03)



2. **Mount the tool on the wishbone and press the wheel hub in.**



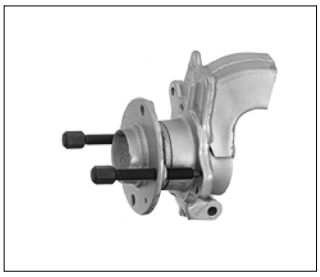
Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 4-08.

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KL-0105 / KL-0106 / KL-0107



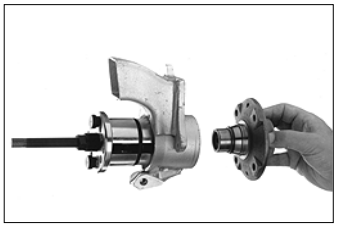


The Pressure Bolts are not suitable for all vehicles

KL-0041-3

VW-Audi, Opel, Renault, Peugeot, etc.





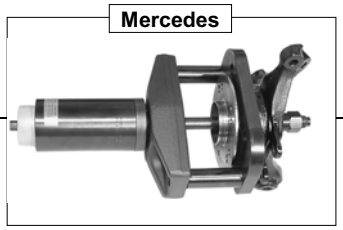
KL-0330-12

Mercedes





Mercedes



KL-0330-121



KL-0105 Pressure Bolts M12×1.25

For Wheel Hub extraction on **Alfa Romeo, Citroën, Fiat, Lancia, Lada, Peugeot, Seat**.

KL-0106 Pressure Bolts M12×1.5

For Wheel Hub extraction on **BMW, Ford, Mazda, Mercedes, Opel/Vauxhall, Renault, Seat, VW**.

KL-0107 Pressure Bolts M14×1.5

For Wheel Hub extraction **on Audi, Citroën, Fiat, Mercedes, Peugeot, VW.**

KL-0041-3 Press Tool

This press tool in improved and strengthened form is designed for quick and easy removal of wheel hubs.

This tool is positioned into the hub with the lips in line with the circlip groove and is infinitely adjustable by the index disc to bearing diameter.

Application: **VW-Audi, Opel/Vauxhall, Renault, Peugeot, Citroën** up to the bearing diameter 82 mm.

KL-0330-12 Wheel Hub Puller hydr. (17 t)

For **Mercedes W124, W129, W140, W163, W168, W169, W201, W202, W203, W210, W211, W245** etc.

This tool allows stubborn wheel hubs to be withdrawn without damage to the hub or bearing housing. Removal of the wheel hubs is performed on the vehicle within a few minutes.

Note: For the **Mercedes W124 (estate)**, baseplate **KL-0330-0001** is also needed.

KL-0330-1201 - Base Plate

If wheel hub puller **KL-0330** with baseplate **KL-0330-0001** is available, baseplate **KL-0330-1201** is needed for the new vehicle models.

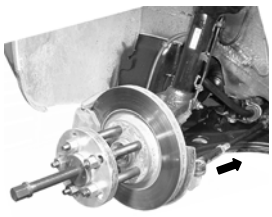
KL-0330-121 Wheel Hub Puller

As **KL-0330-12** but without Hydraulic Cylinder **KL-0040-2500** and without Spindle **KL-0040-2512**.

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Examples of application:

Press out the drive-shaft with the mechanical spindle.



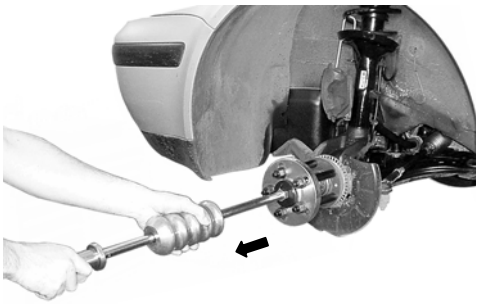
Press out the drive-shaft flange



Press out the drive-shaft using 17 ton Hydraulic Cylinder.



Remove the hub using a slide-hammer



Wheel Hubs

Standard Hub, 4 Wheel Bolts



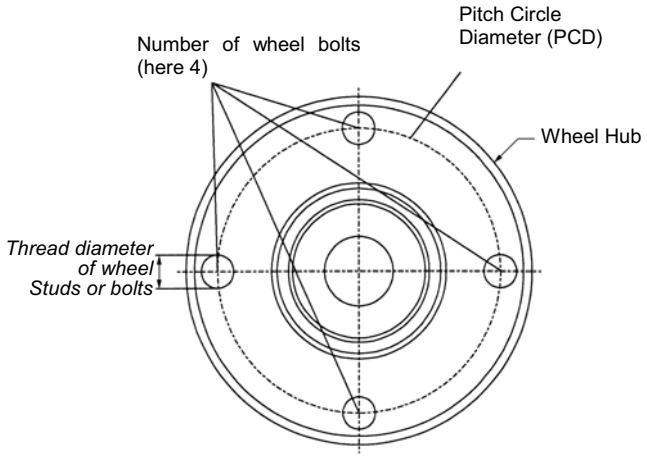
Standard Hub, 5 Wheel nuts



4X4 Off-Road, 6 Wheel nuts



Important Data



KL-0174 Puller Series

The **KL-0174 Puller Series** used together with the hydraulic cylinder **KL-0215-10** (17t.) or with the hydraulic spindle **KL-0045-7** (12t.) allow *to press out drive shafts* glued with loctite or rusted. Together with the slide hammer **KL-0049-31** *wheel hubs, brake drums and half shafts can be removed directly in the vehicle.*

Thanks to the use and combination of different perforated disks, tie bolts and drives the Puller Series KL-0174 is almost universally applicable.

3

Application:

- ***Drive shaft pressing out:***

  ⇒ mechanic or hydraulic
  (depending on the drive variant dee page 3.3-06)

  e.g. the use of the 17 t. hydraulic cylinder **KL-0215-10** (consisting of the hydraulic cylinder **KL-0040-2500** and of the press spindle **KL-0040-2510**) allow to press out even rusted, very stuck or glued drive shafts.

- ***Wheel hubs, half shafts and brake drums removal:***

  ⇒ with slide hammer **KL-0049-31**
  (see page 3.3-06)

  By using the slide hammer **KL-0049-31** *wheel hubs, brake drums and half shafts can be removed directly in the vehicle*.

In order to select the correct puller, the following important data must be known:

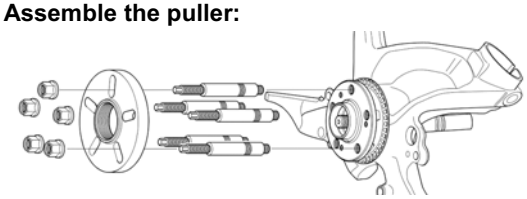
1. PCD and number of studs (3, 4, 5 or 6).
   → important to establish the correct plate size with the correct hole pattern

2. Wheel Studs (type M) or Screws (type B) and thread diameters.
   → important to select the puller bolts with inner or outer threads.

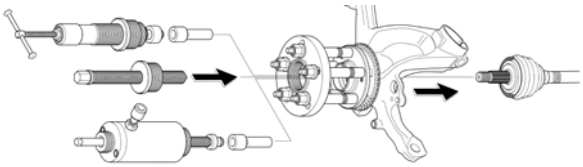
3. What drive method is to be used, mechanical spindle, slide-hammer, Hydraulic spindle or Hydraulic Cylinder?
   → important to establish the length of puller bolts required (see table).

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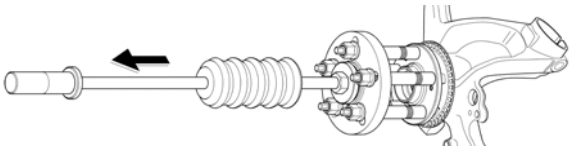
1. Assemble the puller:



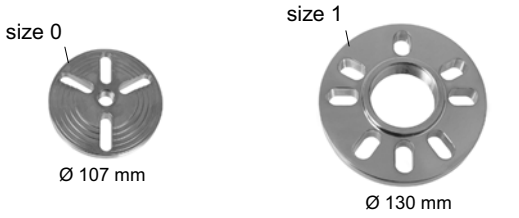
2. Press out drive shaft:



3. Extract wheel hub:



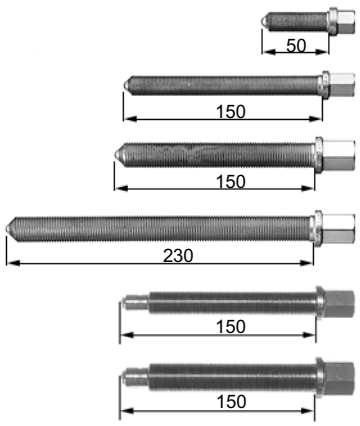
Puller Plates



Adaptors



Press spindles



Press pieces



Spare Parts for the assembly of a Puller from the Puller-Series KL-0174-...

The puller plates with the sizes 0, 1, 2 and 3 can be assembled to an all-purpose puller-system by using different adaptors, spindles, puller bolts, screws and drives.

Puller plates:

Part No.	Description	Inner Thread	PCD [mm]	Outer-Ø [mm]	Hole Pattern
KL-0174-020	Puller plate size 0	M16×1,5	40 - 88	108	2+3-hole
KL-0174-140	Puller plate size 1	M42x2	76 - 105	130	3-4-a.5- hole
KL-0174-240	Puller plate size 2	2 1/4“ – 14 UNS	90 - 130	160	3-4-a.5- hole
KL-0174-360	Puller plate size 3	2 1/4“ – 14 UNS	100 - 180	220	3-4 a. 5- hole

Thread Adaptors: (other dimensions available upon request)

Part No.	Description	
KL-0174-510	Adaptor M42×2 x M14	*(*KL-0049-2003)*
KL-0174-511	Adaptor M42×2 x M14×1,5	
KL-0174-513	Adaptor M42×2 x M16×1,5	
KL-0174-515	Adaptor M42×2 x M18×1,5	
KL-0174-516	Adaptor M42×2 x M18	*(*KL-0049-3005)*
KL-0174-517	Adaptor M42×2 x M20×2	
KL-0174-519	Adaptor M42×2 x M22×2	*(*KL-0049-2007)*
KL-0174-521	Adaptor M42×2 x M24×2	
KL-0174-535	Adaptor 1½"-16UN x M18	(for KL-0049-31 to SP)
KL-0174-540	Adaptor 2¼"-214UNS x M14	
KL-0174-542	Adaptor 2¼"-14UNS x M16×1,5	
KL-0174-544	Adaptor 2¼"-14UNS x M18×1,5	
KL-0174-545	Adaptor 2¼"-14UNS x M18	
KL-0174-547	Adaptor 2¼"-14UNS x M20×2	
KL-0174-549	Adaptor 2¼"-14UNS x M22×2	
KL-0174-551	Adaptor 2¼"-14UNS x M24×2	
KL-0174-552	Adaptor 2¼"-14UNS x M42×2	(for KL-0045-7)
KL-0174-555	Adaptor 2¼"-14UNS x 1½"-16UN	Ø approx.36,5 mm (for SP-Hydr,-Sp.)
KL-0174-559	Adaptor 2¼"-14UNS x 2¼"-14UNS	Ø approx. 55,5 mm (see page 3.3-06)

**Old part no.*

Press Spindles:

Part No.	Description
KL-0174-610	Spindle M14×1,5 × 150
KL-0174-611	Spindle M16×1,5 × 50
KL-0174-615	Spindle M18×1,5 × 150
KL-0174-618	Spindle M20x1,5 × 230
KL-0174-619	Spindle M20×2 × 150
KL-0174-623	Spindle M22×2 × 150
KL-0174-624	Spindle M22×2 × 230
KL-0174-620	Spindle with pivot (Ø 14 mm) M20×2 × 230
KL-0174-812	Spindle with pivot (Ø 14 mm) M16x1,5 x 150
KL-0174-817	Spindle with pivot (Ø 14 mm) M20x1,5 x 150

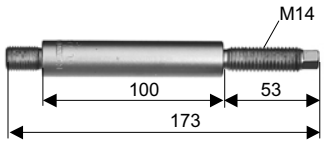
Pressure pieces:

e.g. to press out wheel hubs. Suitable for the spindles **KL-0174-812** and **KL-0174-817**.

Part no.	Description	
KL-0174-851	Pressure piece for hub	Ø 34 mm
KL-0174-854	Pressure piece for hub	Ø 48 mm

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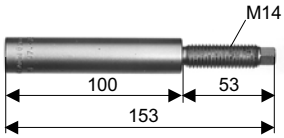
Puller Bolts Type „B“



Standard wheel hub (wheel bolt system)



Puller Bolts Type „M“



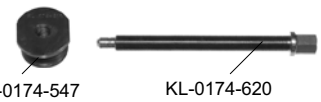
Standard wheel hub, (wheel nut system)



Shoulder nuts



Drives:

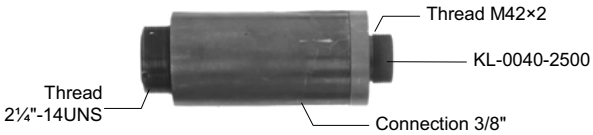


KL-0045-7 Hydraulic-Spindle (by using with the KL-0174-Series, use adaptor KL-0174-552!)



Technical Data see page 4-04

KL-0215-10





Technical Data see page 4-04

Note
A Hydraulic Pump (see page 4-08) will be required to drive the **KL-0040-2500.**

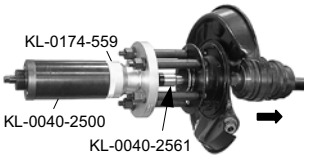
KL-0040-2561



KL-0174-559



Drive-Shaft extraction with the Hydraulic Cylinder (17 t.)



KL-0049-31 with adaptor 2¼“ UNS to M18



Puller Bolts:

Puller Bolts Type „B“ - Outer thread (Wheel bolt system)

Part No.	Description	
KL-0174-722	Puller bolts type B M12×1,25	Distance area = 100 mm
KL-0174-723	Puller bolts type B M12×1,5	Distance area = 100 mm
KL-0174-724	Puller bolts type B M14×1,5	Distance area = 100 mm
KL-0174-725	Puller bolts type B M16×1,5	Distance area = 100 mm
KL-0174-726	Puller bolts type B M12×1,75	Distance area = 100 mm

Puller Bolts Type „M“ - Inner thread (Wheel nut system)

Part No.	Description	
KL-0174-762	Puller bolts type M M12×1,25	Distance area = 100 mm
KL-0174-763	Puller bolts type M M12×1,5	Distance area = 100 mm
KL-0174-764	Puller bolts type M M14×1,5	Distance area = 100 mm
KL-0174-765	Puller bolts type M, M16×1,5	Distance area = 100 mm
KL-0174-767	Puller bolts type M, M14	Distance area = 100 mm

Shoulder nuts

Part No.	Description
KL-0174-700	Shoulder nut set (6 pieces.) M14 - hex 22
KL-0174-701	Shoulder nut M14 - hex 22

Drives:

Mechanical:
(consists of adaptor und press spindle see page 3.3-05)

Example:

Part No.	Description	Qty.
KL-0174-547	Adaptor 2¼"-14UNS on M20x2	1
KL-0174-620	Spindle M20x2 x 230	1

KL-0045-7 Hydraulic-Spindle 12t

The **KL-0045-7** is a hydraulic spindle with a 120 kN (12 t) capacity designed to fit a range of KLANN tool systems.

The tool consists of a top quality steel body, twin internal pistons, replaceable O-rings and various sealing closures.

For further hydraulic accessoires see chapter 4.

KL-0215-10 Hydraulic-Cylinder with Pressure Spindle

Used in conjunction with an endless assortment of Press and Propping adaptors, and due to its special construction, this tool offers a quick, easy, clean and safe solution to the problem of extracting and replacing metallastic bushes, ball-joints, wheel-bearings, Hubs, drive-shafts, etc.

The Hydraulic Cylinder **KL-0215-10** (17t) is also ideal for use with **KL-0040-3, KL-0174-Series, KL-0330**. Hydraulic coupling and threaded adaptor is not included in the delivery.

For further Hydraulic Accessories see Chapter 4.

KL-0040-2561 Pressure Piece

For use with the pressure spindle **KL-0040-2510** in conjunction with Hydraulic Cylinder **KL-0040-2500** to press out loctited drive shafts.

KL-0174-559 Adaptor 2¼"-14UNS to 2¼"-14UNS

Required for the use of Hydraulic Cylinders **KL-0215-10** and **KL-0040-25** in conjunction with Puller Discs size 1 and 2 with PCD Ø of 90 - 102 mm.

KL-0049-31 Slide Hammer

For Half-Shafts, Drive Shafts, Brake Discs and Brake drums, etc. including Adaptor 2 ¼“-14UNS to M18 suitable for the **KL-0174-Series**.

Hammer weight: ..... 4,8 kg Length: ..... 690 mm

3

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KL-0174-110



KL-0174-111



KL-0174-107 KA

Universal



KL-0174-110 Puller Set

Suitable for: **VW-Audi, Alfa Romeo, BMW, Citroën, Fiat Ford, Mazda, Mercedes, Opel, Peugeot, Porsche, Renault, Seat, Škoda, etc.**

Part No.	Description	Qty.
KL-0174-110	**Puller Set**	**1**
consists of:		
KL-0174-240	Puller plate size 2 (3-4-a.5-hole)	1
KL-0174-723	Puller bolts type B, M12x1,5 (l=100)	4
KL-0174-724	Puller bolts type B, M14x1,5 (l=100)	4
KL-0174-701	Hex. shoulder nut M14	4
KL-0174-547	Adaptor 2¼"-14UNS on M20x2	1
KL-0174-620	Spindle M20x2 x 230	1

KL-0174-111 Puller Set with slide hammer

Suitable for: **VW-Audi, Alfa Romeo, BMW, Citroën, Fiat Ford, Mazda, Mercedes, Opel, Peugeot, Porsche, Renault, Seat, Škoda, etc.**

Part No.	Description	Qty.
KL-0174-111	**Puller set**	**1**
consists of:		
KL-0174-240	Puller plate size 2 (3-4-a.5-hole)	1
KL-0174-723	Puller bolts type B, M12x1,5 (l=100)	4
KL-0174-724	Puller bolts type B, M14x1,5 (l=100)	4
KL-0174-701	Hex. Shoulder nut M14	4
KL-0174-547	Adaptor 2¼"-14UNS on M20x2	1
KL-0174-620	Spindle M20x2 x 230	1
KL-0049-31	Slide hammer 4,8 kg	1

Note: The Puller Sets **KL-0174-110** and **KL-0174-111** may be further enhanced by the addition of further Puller Discs, Adaptors, Spindles and Puller Bolts.

KL-0174-107 KA Universal Puller Set

Suitable e.g. for **VW-Audi, Alfa Romeo, BMW, Citroën, Fiat Ford, Honda, Hyundai, Lancia, Mazda, Mercedes, Mitsubishi, Nissan, Opel, Renault, Rover, Subaru, Suzuki, Seat, Škoda, Toyota, etc.**

By using the Puller Set **KL-0174-107 KA** *wheel hubs, brake drums and half shafts can be removed directly in the vehicle* and rusted or glued with loctite drive shafts are pressed out.

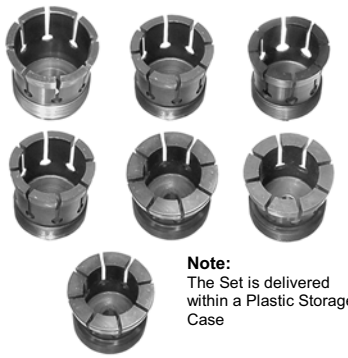
Part No.	Description	Qty.
KL-0174-107 KA	**Universal Puller Set**	**1**
consists of:		
KL-0174-240	Puller plate size 2 (3-4-a.5-hole)	1
KL-0174-350	Puller plate size 3 (4-a.5-hole)	1
KL-0174-722	Puller bolts type B, M12x1,25 (l=100)	4
KL-0174-723	Puller bolts type B, M12x1,5 (l=100)	4
KL-0174-724	Puller bolts type B, M14x1,5 (l=100)	4
KL-0174-725	Puller bolts type B, M16x1,5 (l=100)	4
KL-0174-726	Puller bolts type B, M12x1,75 (l=100)	4
KL-0174-762	Puller bolts type M, M12x1,25 (l=100)	4
KL-0174-763	Puller bolts type M, M12x1,5 (l=100)	4
KL-0174-764	Puller bolts type M, M14x1,5 (l=100)	4
KL-0174-765	Puller bolts type M, M16x1,5 (l=100)	4
KL-0174-701	Hex. Shoulder nut M14	4
KL-0174-559	Adaptor 2¼"-14UNS on 2¼"-14UNS	1
KL-0049-31	Slide hammer 4,8 kg	1
KL-0040-2500	Hydraulic-Cylinder 17t	1
KL-0040-2510	Pressure spindle	1
KL-0040-2561	Pressure piece	1
KL-0174-0090	Plastic case 780x450x175 mm (empty)	1

Note: Additionally, the KL-0045-70 Hydraulic Spindle can also be stored in the Case

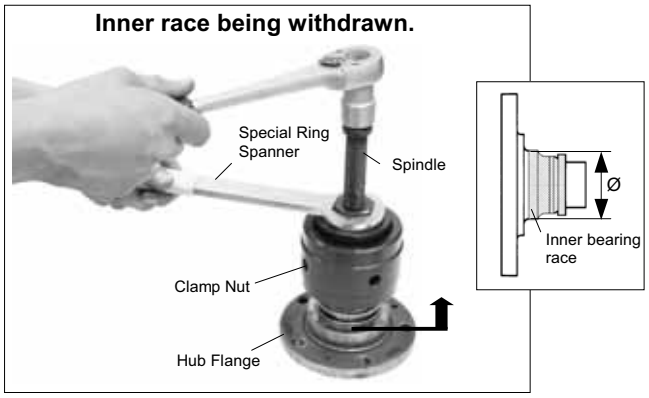
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KL-0042-90 K





Note:
The Set is delivered within a Plastic Storage Case



KL-0042-91 K



VW-Audi

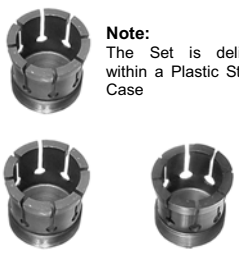


Note:
The Set is delivered within a Plastic Storage Case

KL-0042-92 K



Mercedes



Note:
The Set is delivered within a Plastic Storage Case

KL-0042-90 K Inner Bearing Race Puller Set

Allows precise extraction of the Inner Bearing Race from the Wheel Hub.
Removal of the Hub almost always leaves the inner race on the Hub. The Race is impossible to remove without the correct special tool. Makeshift methods such as Grinders, Chisels, Welding Torches, etc. represent severe risks of personal injury or damage to the components.
The new Puller Set **KL-0042-90 K** allows quick and easy removal of inner bearing races with diameters from 44 mm to 72 mm within a few minutes without risk of damage or injury.

For VW-Audi, BMW, Ford, Fiat, Mercedes, Opel, Renault, Seat, Škoda, Porsche, Peugeot, Volvo etc.

Specification:

Part No.	Description	Qty.
KL-0042-90 K	**Inner Bearing Race Puller Set**	**1**
consists of:		
KL-0042-900	Puller Tool Body	1
KL-0042-9031	Chuck size 3 Ø 44 - 48 mm (e.g. Lancia Cappa,Renault etc.)	1
KL-0042-9041	Chuck size 4 Ø 48 - 52 mm (e.g. Ford Transit, T330 etc.)	1
KL-0042-9051	Chuck size 5 Ø 52 - 56 mm (e.g. VW-Audi, Seat, Škoda etc.)	1
KL-0042-9061	Chuck size 6 Ø 56 - 60 mm (e.g. Mercedes W168)	1
KL-0042-9071	Chuck size 7 Ø 60 - 64 mm (e.g. Mercedes W201, W202, W203, W210, W124, BMW, Peugot etc.)	1
KL-0042-9081	Chuck size 8 Ø 64 - 68 mm (e.g. Mercedes W163, W140, W169, W211, W220, W245, W124T)	1
KL-0042-9091	Chuck size 9 Ø 68 - 72 mm (e.g. VW Touareg, Porsche Cayenne etc.)	1
KL-0042-9099	Plastic storage case (without illustration)	

KL-0042-900 Puller Tool Body *consists of:*

Part No.	Description
KL-0042-9001	Chuck
KL-0042-9002	Handle
KL-0042-9003	Protective Handle Ø 14mm
KL-0042-9004	Special Ring Spanner 36mm

Part No.	Description
KL-1381-2004	Protective Handle 25 x 8
KL-0174-817	Spindle with Pin (M20x1,5)
KL-0174-851	Pressure Piece for Hubs
KL-0174-854	Pressure Piece for Hubs

Inner Bearing Race Puller (not ill.)

KL-0042-903 Inner Bearing Race Puller
Suitable for inner races-Ø 44 - 48 mm. (e.g. **Lancia Cappa, Renault etc.**)
Consists of KL-0042-900 and KL-0042-9031

KL-0042-904 Inner Bearing Race Puller
Suitable for inner races -Ø 48 - 52 mm. (e.g. **Ford Transit, T330 etc.**)
Consists of KL-0042-900 and KL-0042-9041

KL-0042-905 Inner Bearing Race Puller
Suitable for inner races -Ø 52 - 56 mm. (e.g. **VW-Audi, Seat, Škoda etc.**)
Consists of KL-0042-900 and KL-0042-9051

KL-0042-906 Inner Bearing Race Puller
Suitable for inner races -Ø 56 - 60 mm. (e.g. **Mercedes W168 etc.**)
Consists of KL-0042-900 and KL-0042-9061

KL-0042-907 Inner Bearing Race Puller
Suitable for inner races -Ø 60 - 64 mm. (e.g. **Mercedes, W201, W202, W203, W210, W124, BMW, Peugot etc.**)
Consists of KL-0042-900 and KL-0042-9071

KL-0042-908 Inner Bearing Race Puller
Suitable for inner races -Ø 64 - 68 mm. (e.g. **Mercedes W163, W140, W169, W211, W220, W245, W127T**)
Consists of KL-0042-900 and KL-0042-9081

KL-0042-909 Inner Bearing Race Puller
Suitable for inner races -Ø 68 - 72 mm. (e.g. **VW Touareg, Porsche Cayenne etc.**)
Consists of KL-0042-900 and KL-0042-9091

KL-0042-91 K Inner Bearing Race Puller Set

As **KL-0042-90 K** but consists of the Base tool **KL-0042-900**, the Chucks size 4 **KL-0042-9041** and size 5 **KL-0042-9051** and the Plastic Storage Case **KL-0042-9099**.
Universal application for Inner Bearing Races with Ø 48 mm - 56 mm.

KL-0042-92 K Inner Bearing Race Puller Set

As **KL-0042-90 K** but consists of the Base tool **KL-0042-900**, the Chucks size 6 **KL-0042-9061,** size 7 **KL-0042-4071,** size 8 **KL-0042-4081** and the Plastic Storage Case **KL-0042-9099**.
Universal application for Inner Bearing Races with Ø 56 mm - 68 mm.

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KL-0155-9





KL-0252-10



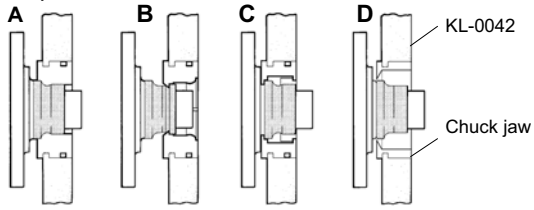


KL-0042-1 K

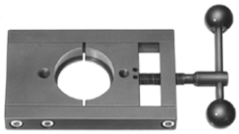




Examples for inner race withdrawn.

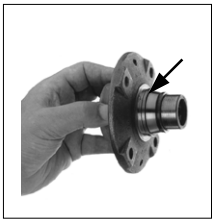


KL-0042 Tool body without chuck jaws



Accessories for KL-0042





Inner race extraction using either 2-Arm Puller or in conjunction with **KL-0174 Series**.





KL-0155-9 Twin-Arm Bearing Puller

With clamping bridge and pushing adaptor. Especially for extracting the inner bearing race on **VW-Audi** cars.

Technical Data:

Part No.	⇔ [mm]	⇕ [mm]	Weight [kg]
KL-0155-9	90	100	1,65

KL-0252-10 Inner Bearing Race Puller

To remove the inner bearing race of front wheel hubs on **Golf IV** with ABS brakes.

KL-0042-1 K Universal Inner Bearing Race Extractor

Suitable for **VW-Audi, Opel/Vauxhall, BMW, Fiat, Seat, Mercedes, Renault, Peugeot, Citroën, etc. as well as Japanese cars.**

Wheel-bearing inner races may be quickly, cleanly and safely removed from the hub using the **KL-0042-1 K universal** tool.

Further Chuck-Jaws are available upon request.

Each Chuck-Jaw has a turned profile which corresponds exactly to the inner race, or a lip which can engage behind the race. For inner races that cannot be gripped in the race-profile or in an alternative groove, we offer the Chuck-Jaws **KL-0042-0045**, which are formed with a knife-edge to separate the inner-race from the hub.

Advantages

- Universal due to inter-changeable Chuck-Jaws.
- Quick, safe, clean ⇒ cost-savings.
- Hardened components ⇒ wear-resistant.
- Robust construction, may be used safely in Hydraulic Presses.
- Hammers, Chisels, Welding Torches and Angle-grinders are not required ⇒ no risks of accidents.

Part No.	Description	Qty.
KL-0042-1K	**Inner Bearing Ring Extractor**	**1**
consists of:		
KL-0042	Inner Bearing Ring Extractor (Tool Body)	1
KL-0042-0010	Pair of Chuck-Jaws for VW-Audi	1
KL-0042-0015	Pair of Chuck-Jaws for Opel/Vauxhall	1
KL-0042-0016	Pair of Chuck-Jaws for Opel/Vauxhall, BMW	1
KL-0042-0025	Pair of Chuck-Jaws for Mercedes	1
KL-0042-0045	Pair of universal Chuck-Jaws	1
KL-0042-0060	Plastic storage case - empty	1

KL-0042 Inner Bearing Race Extractor

As **KL-0042-1 K** but without chuck jaws and case.

Accessories:

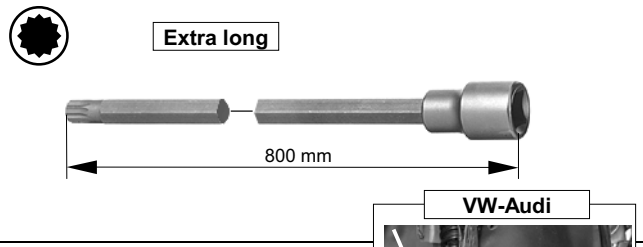
Part No.	Chuck-jaws for
KL-0042-0010	VW-Audi
KL-0042-0015	Opel/Vauxhall
KL-0042-0016	Opel/Vauxhall, BMW
KL-0042-0017	Opel/Vauxhall
KL-0042-0020	Fiat and Seat
KL-0042-0021	Fiat
KL-0042-0025	Mercedes
KL-0174-726	Bolts M12x1,75 (each) For KL-0174... Series

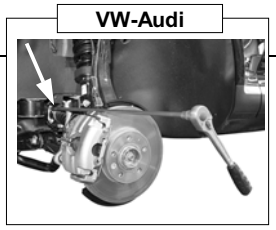
Part No	Chuck jaws for
KL-0042-0026	Mercedes W140 (S-Class)
KL-0042-0030	BMW and VW
KL-0042-0040	Peugeot
KL-0042-0041	Peugeot, Renault
KL-0042-0045	Universal
KL-0042-0050	Drift
KL-0041-3006	Pressure Disc
KL-0042-0060	Empty case (not Ill.)

Use of the **KL-0174-...Series** requires 2 Bolts **KL-0174-726** and 2 Nuts **KL-0174-701.**

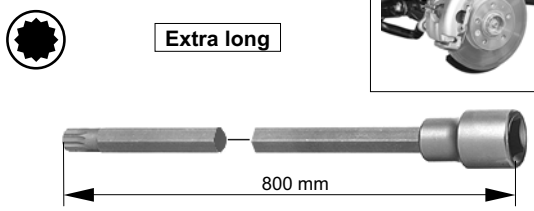
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KL-0232-1

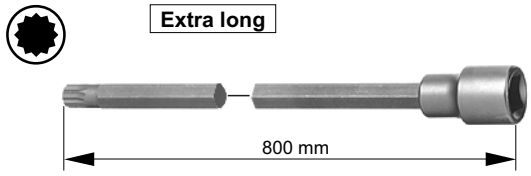


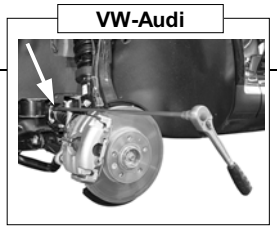


KL-0232-2

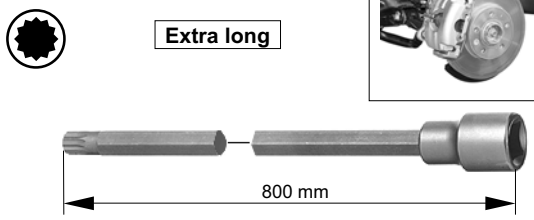


KL-0232-3





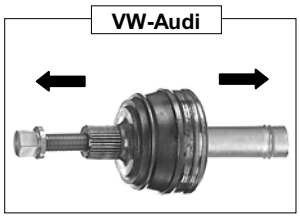
KL-0232-4



KL-0233-1

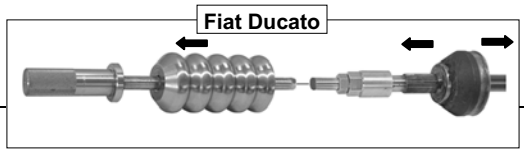

KL-0233-10 (M14×1,5)


KL-0233-11 (M16×1,5)



KL-0049-3014





KL-0049-31



KL-0232-1 Special Socket XZN M8

For loosening the screws at the drive shaft quick and easy from outside.

→ Increased job time saving.

Not permitted for the use of impact guns.

Suitable for **VW-Audi**, etc.

Length: ..... 800 mm Drive:..... ½“☐

KL-0232-2 Special Socket XZN M10

Application as **KL-0232-1**.
Especially for **VW Golf IV** etc.

Length: ..... 800 mm Drive:..... ½“☐

KL-0232-3 Special Socket XZN M12

Application as **KL-0232-1.**
Especially for **VW T4, Touareg** etc..

Length: ..... 800 mm Drive:..... ½“☐

KL-0232-4 Special Socket XZN M14

Application as **KL-0232-1.**
Especially for **VW T4, Touareg** etc.

Length: ..... 800 mm Drive:..... ½“☐

KL-0233-1 CV Joint Pressure Bolts

Suitable for VW-Audi.

This tool allows the quick and easy removal of the Constant Velocity Joint on the Drive Shaft. (Not suitable for sleeve shafts.)

Weight: ..... 595 g

consists of:

Part No.	Description
KL-0233-10	Pressure screw M14×1,5
KL-0233-11	Pressure screw M16×1,5

KL-0049-3014 Adaptor M28x1,5

Suitable for Fiat Ducato.

The Adaptor **KL-0049-3014** allows quick and easy separation of the outer Constant Velocity Joint on Drive Shafts in conjunction with the slide hammer **KL-0049-31.**

Hex.: ..... 32 mm Ø: ..... 40 mm
Length: ..... 65 mm Connection thread:..... M18

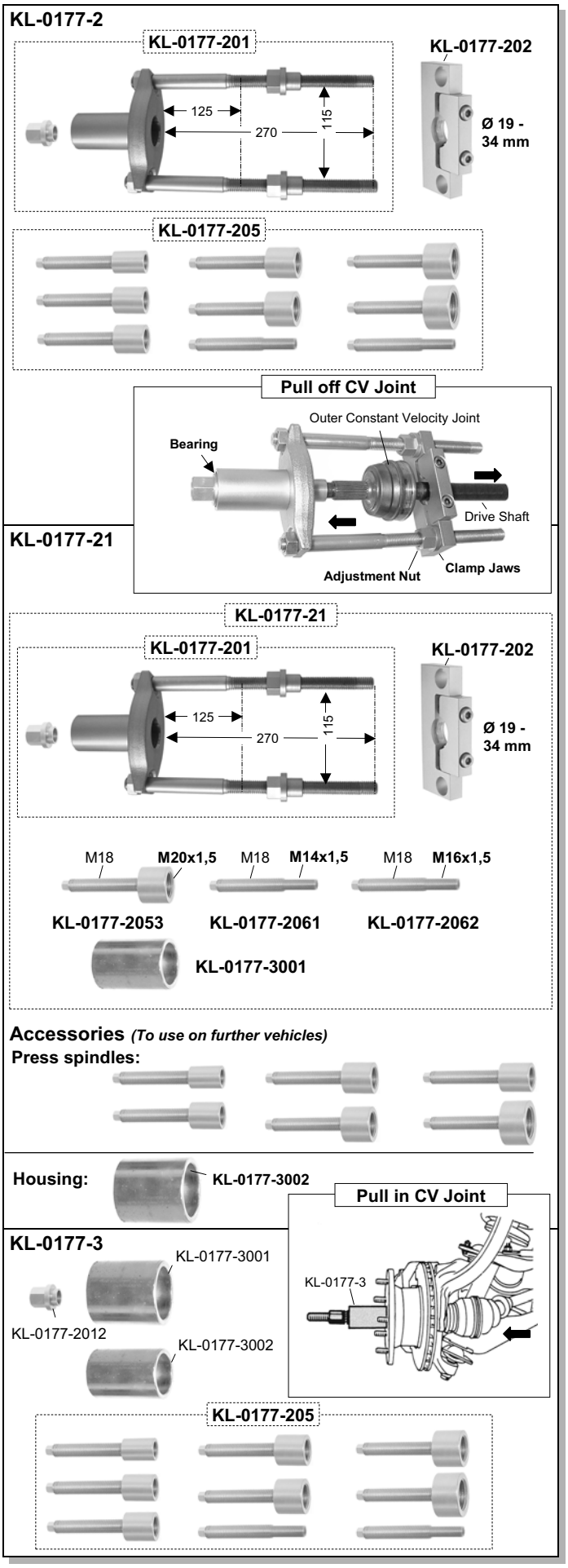
KL-0049-31 Slide Hammer

For Half-Shafts, Drive Shafts, Brake Discs and Brake drums, etc. including Adaptor 2 ¼“-14UNS to M18 suitable for the **KL-0174-Series.**

Hammer weight: ..... 4,8 kg Length: ..... 690 mm

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KL-0177-2 CV Joint Splitter (Pat.)

Allows quick and easy separation of the outer Constant Velocity Joint on Drive Shafts. *The operation can be performed without removing the Drive Shaft from the vehicle.* (On some cars it is not possible to pull off the CV Joint) ⇒ Important when changing the Gaiter or CV Joint.
The various Spindles ensure that this tool is universally suitable for a wide range of vehicles - **VW-Audi, Opel/Vauxhall, Jap. vehicles, etc.**

Advantages:

• High time savings • Prevents accidents • Eliminates damage to components caused by Hammers, Chisels, etc. • Universal application.

consists of:

Part No.	Description	Qty.
KL-0177-201	Press Frame	1
KL-0177-202	Set of Clamp Jaws Ø 19 - 34 mm	1
KL-0177-205	**Set of Spindles**	**1**

KL-0177-205	**Set of Spindles**	**1**
consists of:		
KL-0177-2051	Spindle M16x1,5 inner thread (outer Ø20)	1
KL-0177-2052	Spindle M18x1,5 inner thread (outer Ø22)	1
KL-0177-2053	Spindle M20x1,5 inner thread (outer Ø23)	1
KL-0177-2054	Spindle M22x1,5 inner thread (outer Ø25)	1
KL-0177-2055	Spindle M24x1,5 inner thread (outer Ø28) BMW	1
KL-0177-2056	Spindle M27x1,5 inner thread (outer Ø30) BMW	1
KL-0177-2057	Spindle M30x1,5 inner thread (outer Ø35) BMW	1
KL-0177-2061	Spindle M14x1,5 outer thread VW-Audi	1
KL-0177-2062	Spindle M16x1,5 outer thread VW-Audi	1

KL-0177-21 CV Joint Splitter and drive shaft insertion tool (Pat.)

Suitable for VW-Audi, Seat, Skoda etc.
For pulling the constant-velocity joint off the half-shaft and pulling the half-staft into the wheel hub.
⇒ Suitable for both solid and hollow half-shafts.

Application

Allows quick and easy separation of the outer Constant Velocity Joint on Drive Shafts. *The operation can be performed without removing the Drive Shaft from the vehicle.* (On some cars it is not possible to pull off the constant-velocity joint)
⇒ Important when changing the Gaiter or constant-velocity joint.
Housing **KL-0177-3001**, shouldered nut (**KL-0177-2012** M18, 27 mm across jaws) and the appropriate puller spindle are used to pull the half-shaft into the wheel hub. This tool is needed for vehicles on which the half-shafts are a very tight fit in the wheel hub.
Various housings and puller spindles make this tool universal in use, for instance on e.g. **BMW, Mercedes, Opel, Renault, Peugeot, Seat, Skoda, VW-Audi, jap. vehicles, etc.**

Advantages:

• Large time-saving. • Reduces risks of accidents • Eliminates damage to components caused by Hammers, Chisels, etc.
• universal using. • Suitable for both solid and hollow half-shafts.

consists of:

Part No.	Description	Qty.
KL-0177-201	Press Frame	1
KL-0177-202	Set of Clamp Jaws Ø 19 - 34 mm	1
KL-0177-2061	Spindle M14x1,5 outer thread [e.g. Audi 80, A4]	1
KL-0177-2062	Spindle M16x1,5 outer thread [e.g. Audi A6]	1
KL-0177-2053	Spindle M20x1,5 inner thread (outer Ø23) [e.g. VW Golf IV, Touareg, Porsche Cayenne etc.]	1
KL-0177-3001	Housing (outer Ø39 mm inner Ø29 mm)	1

Accessories Spindles:

KL-0177-2051 Spindle M16x1,5 inner thread (outer Ø20)
KL-0177-2052 Spindle M18x1,5 inner thread (outer Ø22)
KL-0177-2054 Spindle M22x1,5 inner thread (outer Ø25) [e.g. BMW E30]
KL-0177-2055 Spindle M24x1,5 inner thread (outer Ø28) [e.g. BMW E36, Mercedes W203]
KL-0177-2056 Spindle M27x1,5 inner thread (outer Ø30) [e.g. BMW E32, E34, E38, E39]
KL-0177-2057 Spindle M30x1,5 inner thread (outer Ø35) [e.g. BMW E32, E34, E36]

Accessories Housing:

KL-0177-3002 - Housing (outer Ø46 mm inner Ø36 mm) (e.g. BMW]

KL-0177-3 Drive Shaft Insertion Tool

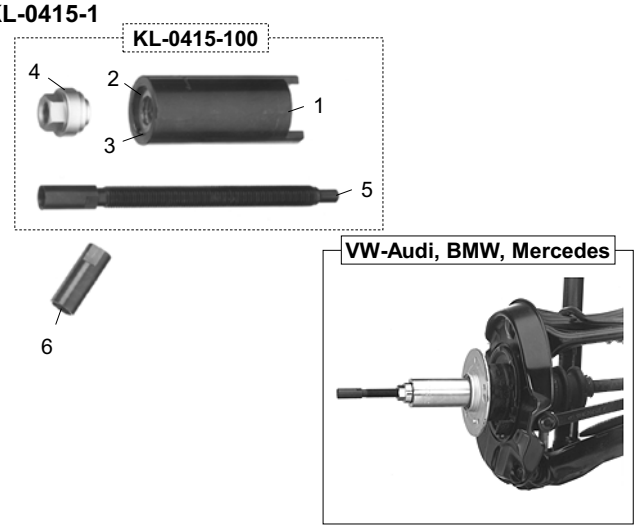
To draw the Drive Shaft into the Hub Splines. Required for those vehicles with tight tolerances between Hub and Drive Shaft splines. Various Spindles ensure universal application, e.g.**VW-Audi, BMW, Mercedes, Opel/Vauxhall, Renault, Peugeot etc.**

consists of:

Part No.	Description	Part No.	Description
KL-0177-3001	Housing o.-Ø39 mm i.-Ø 29 mm	KL-0177-2012	Shoulder nut
KL-0177-3002	Housing o.-Ø46 mm i.-Ø 36 mm	KL-0177-205	Set of spindles

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KL-0415-1



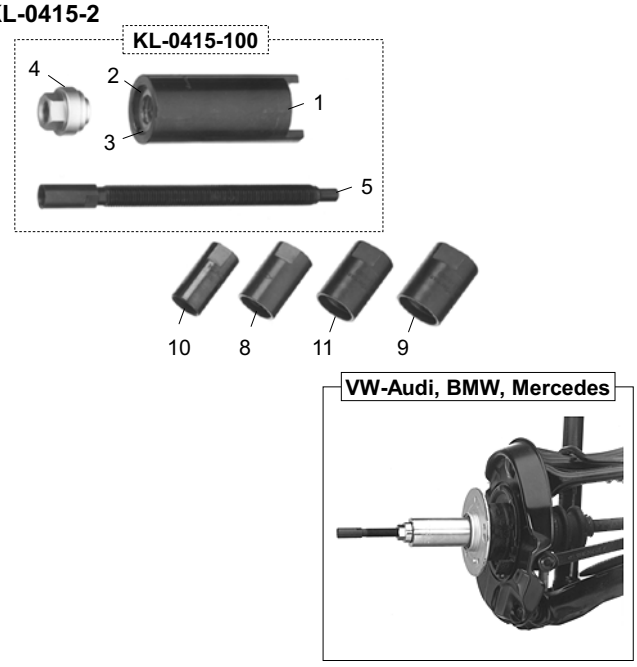
KL-0415-1 Puller for drive shafts
with 1 Adaptor

For pulling drive-shafts into hubs or for extracting hubs. Essential for **BMW E36 and Mercedes W203,** etc.

Pos.	Part No.	Description	Qty.
	KL-0415-1	**Puller for drive shafts (BMW and Mercedes)**	**1**
	consists of:		
8	KL-0415-0008	Adaptor M24x1,5 (e.g. BMW E36, Mercedes W203)	1
	KL-0415-100	**Puller, base tool**	**1**

Pos.	Part No.	Description	Qty.
	KL-0415-100	**Puller, base tool**	**1**
	consists of:		1
1	KL-0415-0001	Housing	1
2	KL-0040-3004	Axle Bearing	1
3	KL-0040-3005	Snap ring SB 35	1
4	KL-0415-0004	Locking nut	1
5	KL-0415-0005	Spindle	1

KL-0415-2



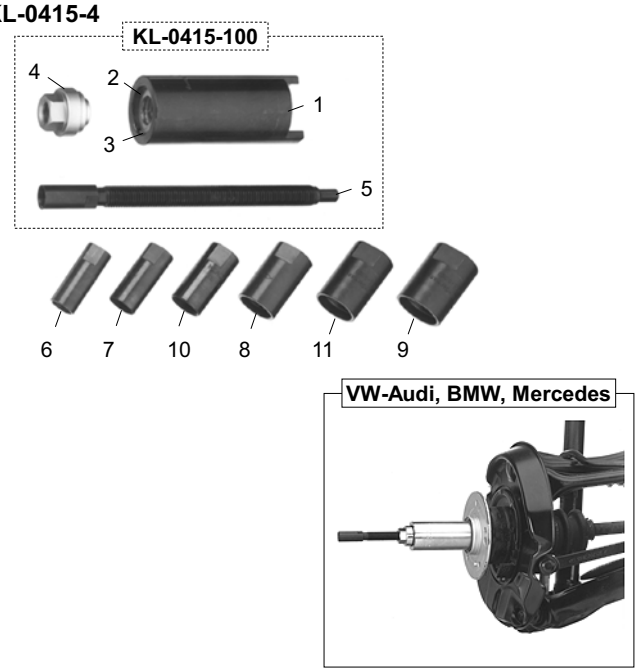
KL-0415-2 Puller for drive shafts
with 4 Adaptors

For pulling drive-shafts into hubs or for extracting hubs. Essential for **BMW (E30, E32, E34, E36 E38, E39,** etc.**) and Mercedes (W203** etc.**)**

Pos.	Part No.	Description	Qty.
	KL-0415-2	**Puller for drive shafts (BMW and Mercedes)**	**1**
	consists of:		
8	KL-0415-0008	Adaptor M24x1,5 (e.g. BMW E36, Mercedes W203)	1
9	KL-0415-0009	Adaptor M30x1,5 (e.g. BMW E32, E34, E36)	1
10	KL-0415-0010	Adaptor M22x1,5 (e.g. BMW E30, E46)	1
11	KL-0415-0011	Adaptor M27x1,5 (e.g. BMW E32, E34, E38, E39, X5)	1
	KL-0415-100	**Puller, base tool**	**1**

Pos.	Part No.	Description	Qty.
	KL-0415-100	**Puller, base tool**	**1**
	consists of:		1
1	KL-0415-0001	Housing	1
2	KL-0040-3004	Axle Bearing	1
3	KL-0040-3005	Snap ring SB 35	1
4	KL-0415-0004	Locking nut	1
5	KL-0415-0005	Spindle	1

KL-0415-4



KL-0415-4 Puller for drive shafts
with 6 Adaptors

For pulling drive-shafts into hubs or for extracting hubs. Essential for **VW-Audi (Touareg** etc.**), BMW (E30, E32, E34, E36 E38, E39,** etc.**), Mercedes (W203** etc.**) and Porsche (Cayenne** etc.**).**

Pos.	Part No.	Description	Qty.
	KL-0415-4	**Puller for drive shafts (VW-Audi, BMW, Mercedes and Porsche)**	**1**
	consists of:		
6	KL-0415-0006	Adaptor M16x1,5	1
7	KL-0415-0007	Adaptor M20x1,5 (e.g. Porsche Cayenne, VW-Touareg)	1
8	KL-0415-0008	Adaptor M24x1,5 (e.g. BMW E36, Mercedes W203)	1
9	KL-0415-0009	Adaptor M30x1,5 (e.g. BMW E32, E34, E36)	1
10	KL-0415-0010	Adaptor M22x1,5 (e.g. BMW E30, E46)	1
11	KL-0415-0011	Adaptor M27x1,5 (e.g. BMW E32, E34, E38, E39, X5)	1
	KL-0415-100	**Puller, base tool**	**1**

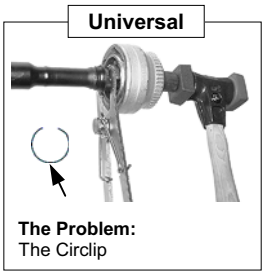
Pos.	Part No.	Description	Qty.
	KL-0415-100	**Puller, base tool**	**1**
	consists of:		1
1	KL-0415-0001	Housing	1
2	KL-0040-3004	Axle Bearing	1
3	KL-0040-3005	Snap ring SB 35	1
4	KL-0415-0004	Locking nut	1
5	KL-0415-0005	Spindle	1

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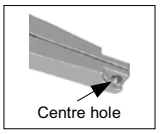
KL-0192-13





KL-0192-12





KL-0192-825







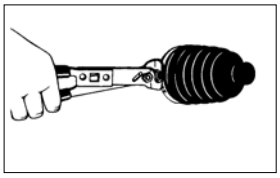
KL-0192-826





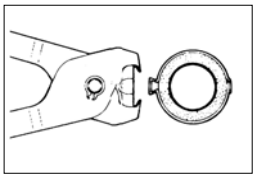
KL-0121-90





KL-0121-93





KL-0192-13 Circlip Squeezing Pliers

Suitable for VW-Audi, Ford, Honda, Mazda, Mitsubishi, Nissan, Opel/Vauxhall, Seat, Škoda, Subaru, Suzuki, Toyota, etc.

To pre-tension the drive-shaft circlip during assembly of the outer constant velocity joint.

By holding the drive-shaft circlip with the special circlip pliers **KL-0192-13**, the outer drive-shaft splines can be easily assembled onto the CV Joint.

Weight:.....360 g

KL-0192-12 Special Circlip Pliers angled

Specially used for Drive-Shafts and CV-Joints, Engines and Transmissions.

Applicable on **VW-Audi, Mercedes, Opel/Vauxhall, BMW, Ford,** etc.

Part-No.	Application example	Tip-Form	max. opening [mm]	Long [mm]	Wt. [g]
KL-0192-12	very inaccessible or deep-seated Circlips on Drive-Shafts and Steering Shafts	30 degree angled, centering-rand, long, slim	min. 3 max. 35	200	190

KL-0192-825 Special Circlip Pliers

Specially used for Drive-Shafts and CV-Joints, Engines and Transmissions.

Applicable on **VW-Audi, Mercedes, Opel/Vauxhall, BMW, Ford,** etc

Part-No.	Application example	Tip-Form	max. opening [mm]	Long [mm]	Wt. [g]
KL-0192-825	deep, large Rings on Drive Shafts and Steering Shafts	straight, centering-rand, long, slim	min. 5 max. 40	240	210

KL-0192-826 Special Circlip Pliers

Specially used for Drive-Shafts and CV-Joints, Engines and Transmissions.

Applicable on **VW-Audi, Mercedes, Opel/Vauxhall, BMW, Ford,** etc.

Part-No.	Application example	Tip-Form	max. opening [mm]	Long [mm]	Wt. [g]
KL-0192-826	large Rings on Drive Shafts and Steering Shafts	straight with Hold profile	min. 6,5 max. 35	225	205

KL-0121-90 Hose Band Pliers

Applicable on Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel/Vauxhall, VW, etc.

For tightening of clamps (system Oetiker) on cv boots, water and fuel hoses.

Advantages:

- No damage to spring band clamps.
- No damage to hoses.
- Easy and quick replacement of hoses.

KL-0121-93 Hose Band Pliers

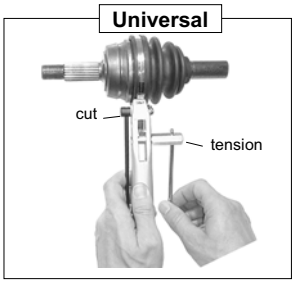
Applicable on Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel/Vauxhall, VW, etc.

For tightening of clamps (system Oetiker) on axle collars, water and fuel hoses. **With toggle joint.**

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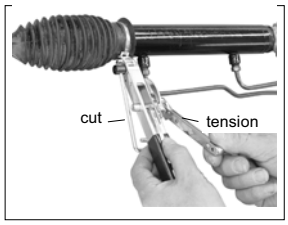
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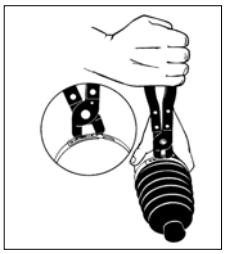
KL-0121-86





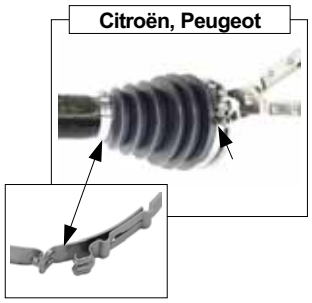
KL-0121-81





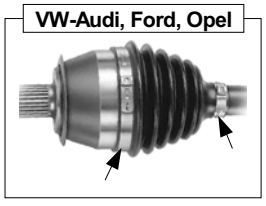
KL-0121-97





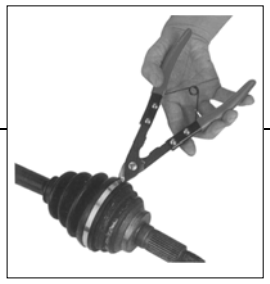
KL-0121-96





KL-0121-83





KL-0121-84



KL-0121-85 Hose Band Tool

Suitable for Endless Clamp-Bands (e.g. Bandimax) up to 9,5 mm, for example drive-shaft gaiters, etc.

For quick and easy tensioning and cutting endless Clamp-Bands.

Weight: ..... 450 g

KL-0121-86 Hose Band Tool with Ratchet

Suitable for Endless Clamp-Bands (e.g. Bandimax) up to 9,5 mm, for example drive-shaft gaiters, etc.

For quick and easy tensioning and cutting endless Clamp-Bands.

Length ..... 200 mm Weight: ..... 360 g

KL-0121-81 Hose Band Pliers

Works on earless-type Clamp-Bands on axle collars, water and fuel hoses.

Universal Application.

Specially for **VW-Audi etc.**

Weight: ..... 340 g

KL-0121-97 Hose Band Pliers

Suitable for Citroën, Peugeot etc.

For releasing and re-fitting reusable Clamp-Bands, types CLIC (Caillau/Serflex).

The jaws of these pliers are specially shaped to open and close even Clamp-Bands that are difficult to reach.

KL-0121-96 Hose Band Pliers with Torque drive

Suitable for VW-Audi, Ford, Opel/Vauxhall etc.

For assembly of new stainless steel Clamp-Bands on drive-shafts where a torque setting is required.

The **4549-05** 3/8" Torque Wrench is ideal to provide the drive.

Spare part: KL-0121-9601 - Replace jaw pair

KL-0121-83 Hose Band Cutter straight

To open or cut "earless“ Clamp-Bands on CV-Joints, Drive-Shafts, Radiator Hoses, Fuel-lines, etc.

Universal application.

Technical data:

Length: ..... 220 mm Weight: ..... 340 g

KL-0121-84 Hose Band Cutter angled

As **KL-0121-83**

But with angled head for inaccessible locations.

Technical data:

Length: ..... 220 mm Weight: ..... 345 g

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KL-0140-74





KL-0140-74 Tire Tread Depth Gauge

Strong brass construction.

Weight: .....50 g
Range: .....30 mm
Legibility: .....0,1 mm

KL-0101-10





KL-0101-10 Pliers for Balance Weights

Hard rubber top eliminates any damage to metal rims.

KL-0101-11



KL-0101-11 Pliers for Balance Weights

Without hard rubber top.

KL-0193-10



VW-Audi, Opel



KL-0193-10 Pliers for Protection Top

Suitable for VW-Audi, Opel/Vauxhall, etc.

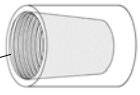
For the safe removal of plastic tops off of wheel bolts.

KL-0101-22 K





Tapering, with a left-hand thread.



KL-0101-22 K Special Socket Set

To remove security wheel-nuts or bolts when the original security key is missing, also to un-do other hexagonal nuts and bolts which have damaged or „rounded“ heads.

The sockets are specially designed (tapering, and with a left-hand thread) to unscrew and remove screws, nuts and threaded pins without difficulty.

consists of:

Part No.	Description	Ø mm
KL-0101-2201	Special Socket	17 mm
KL-0101-2202	Special Socket	18,5 mm
KL-0101-2203	Special Socket	20 mm
KL-0101-2204	Special Socket	21,5 mm
KL-0101-2205	Special Socket	23 mm
KL-0101-2206	Special Socket	24,5 mm
KL-0101-2207	Special Socket	26 mm
KL-0101-2290	Case (empty)	

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KL-0100-54





KL-0100-517 - KL-0100-532



KL-0100-56 K





KL-0115



Universal



KL-0100-54 Impact Socket Set

Specially for loosening and tightening wheel-nuts.

Technical Data:

Hexagons: 17, 19, 21
Length:: ..... 55 mm
Drive: ..... 1/2" □
Weight: ..... 440 g

Deep Impact Socket

Slim design, overall length = 100 mm, drive 1/2“ for wheel studs, drive shafts, etc.

Part-No.	Socket Size
KL-0100-517	17 mm hex
KL-0100-519	19 mm hex
KL-0100-520	20 mm hex
KL-0100-521	21 mm hex
KL-0100-522	22 mm hex

Part-No.	Socket Size
KL-0100-524	24 mm hex
KL-0100-527	27 mm hex
KL-0100-530	30 mm hex
KL-0100-532	32 mm hex

KL-0100-56 K Impact Socket Set with protective outer sleeve

In extra long and thin-wall form, with plastic protective sleeve. Specially for loosening and tightening wheel-nuts on light-alloy wheels.

Technical Data:

Hexagons: 17, 19, 21
Length: ..... 85 mm
Drive: ..... 1/2" □
Weight: ..... 920 g

Accessories: (not illustrated)

Part No:	Description:	Qty:
KL-0100-5617-S	Plastic outer sleeve for 17 mm (blue)	1
KL-0100-5619-S	Plastic outer sleeve for 19 mm (green)	1
KL-0100-5621-S	Plastic outer sleeve for 21 mm (red)	1

KL-0115 Wheel Hub Locking Tool

Application for almost **all passenger cars and light commercial vehicles**.

Drive shaft retaining nuts and hub bearing nuts may be easily removed - even with the vehicle off the ground, and can also be replaced using the correct torque setting.

Length: ..... 620 mm

Note: Special 12 point Sockets for removal and replacement of retaining nuts see Page 3.5-05.

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KL-0100-Series



½" ⇒ cars



1" ⇒ HGV's



See chapter 11.

KL-0100-Series Accu Torq Impact Sockets

AccuTorq Impact Sockets are designed to be used in conjunction with a ½"-drive impact gun to tighten vehicle wheel-nuts to pre-determined torque limits according to manufacturers specifications.

AccuTorqs work by absorbing excessive torque into a torsion bar spring which will release the stored energy by rotating the anvil of the impact gun backwards during the intervals between hammer blows.

AccuTorqs work by "wasting" the excess torque generated by air impact guns, as all torque above the rated limited of any given AccuTorq will deflect the shaft (torsion bar spring) between the ½" input end and the hexagonal output end of the AccuTorq.

Warranty:
The manufacturer offer 12 months unconditional warranty on the torsion bar shaft but in common with all manufacturers of impact sockets no warranty can be offered on the ½" drive or hexagonal drive.

Special Features:

- **Combines impact gun speed with torque-wrench accuracy.**
- **Fits all ½" air impact guns with min. 220 Nm (1"- air impact guns with min. 1 400 Nm).**
- **Maintenance free, no need for calibration adjustments.**
- **Colour coded for easy identification of size and torque-limit (AccuTorqs for lorries are black).**

Technical Data:

Drive ½", Length 220 mm, Weight per 0,3 kg, for cars.

Part No.	Description		Hex.	Nm*
KL-0100-10	Accu Torq Socket (green)	e.g. Renault, Skoda, Suzuki.	17	75
KL-0100-11	Accu Torq Socket (beige)	e.g. Opel, Renault.	17	95
KL-0100-12	Accu Torq Socket (red)	e.g. Audi, BMW, Mercedes, Opel, Porsche, VW.	17	110
KL-0100-13	Accu Torq Socket (navy)	e.g. Alfa Romeo, Citroën, Fiat, Honda, Hyundai, Peugeot, Renault, Rover.	19	75
KL-0100-14	Accu Torq Socket (yellow)	e.g. Alfa Romeo, Citroën, Fiat, Ford, Lada, Opel, Peugeot, Renault, Rover, Volvo.	19	90
KL-0100-15	Accu Torq Socket (blue)	e.g. Alfa Romeo, Fiat, Ford, Honda, Hyundai, Isuzu, Kia, Mercedes, Rover, Saab, Volvo.	19	110
KL-0100-16	Accu Torq Socket (grey)	e.g. Ford, Porsche.	19	135
KL-0100-17	Accu Torq Socket (black)	e.g. Mitsubishi, Rover.	21	80
KL-0100-18	Accu Torq Socket (light brown)	e.g. Daihatsu, Ford, Mazda, Mitsubishi, Nissan, Toyota.	21	110
KL-0100-19	Accu Torq Socket (pink)	e.g. Ford.	21	95
KL-0100-20	Accu Torq Socket (creme)	e.g. Audi A4, A6, A8, Skoda Oktavia	17	120
KL-0100-21	Accu Torq Socket (lemon)	e.g. Mercedes S-Class	17	150
KL-0100-22	Accu Torq Socket (lime)	e.g. Fiat Ulysse & Multipla	19	100
KL-0100-23	Accu Torq Socket (lilac)	e.g. Mercedes M-Class	19	150
KL-0100-24	Accu Torq Socket (dark green)	e.g. Jaguar XJS-Serie, X300 & XK8 (steel wheels only)	22	80
KL-0100-25	Accu Torq Socket (orange)	e.g. Jaguar XJS-Serie, X300 & XK8 (alloy wheels only)	22	100

KL-0100-1000	Accu Torq rack		

* = Torque/Moment of Torsion

Note: Accu Torq Socket Set for HGV`s see HGV Chapter-Pages.

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3550-20

RAHSOL DREMOTEC



1/2"

20-200 N·m

TORCOFLEX K

Code No.:	1379526
Part No.:	3550-20
Weight:	1250 g
Length:	485 mm
Head Ø	44 mm
Head height / length	22 mm
Range of work / measurement 1, Nm (min/max):	20-200
Range of work / measurement 2, lbf·ft (min/max):	15-150
Scale divisions:	10 N·m

4550-20



1/2"

20-200 N·m

TORCOFIX K

Code No.:	7601610
Part No.:	4550-20
Weight:	1100 g
Length:	485 mm
Head Ø	44 mm
Head height / length	22 mm
Range of work / measurement 1, Nm (min/max):	20-200
Range of work / measurement 2, lbf·ft (min/max):	15-150
Scale divisions:	1 N·m

5550-20



1/2"

40-200 N·m

TORCOFIX UK

Code No.:	1210475
Part No.:	5550-20
Weight:	1200 g
Length:	500 mm
Head Ø	44 mm
Head height / length	22 mm
Range of work / measurement 1, Nm (min/max):	40-200
Range of work / measurement 2, lbf·ft (min/max):	15-150
Scale divisions:	1 N·m

8573-00



1/2"

40-200 N·m

DREMOMETER BC

Code No.:	7685530
Part No.:	8573-00
Weight:	1,4 kg
Length:	553 mm
Range of work / measurement 1, Nm (min/max):	40-200
Range of work / measurement 2, lbf·ft (min/max):	30-150
Scale divisions:	5 N·m / 5 lbf·ft

Example for Torque Wrench:

TORCOFIX K 4549-01 ⇒ 1-5 N·m ⇒ 1/4"

TORCOFIX K 4549-02 ⇒ 2-25 N·m ⇒ 1/4"

TORCOFIX K 4549-05 ⇒ 5-50 N·m ⇒ 3/8"

TORCOFLEX K Torque Wrench

Use:

- Controlled screw tightening.
- For use in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with square drive and integrated ratchet-head function
- For controlled bi-directional tightening
- 1/2" push-through square drive with ball-locking mechanism as per DIN 3120 - A 12.5, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Lever-breaking mechanism with a castor guarantee tactile-impulse and audible actuation signals
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Robust, powder-coated steel tube construction with zinc-plated ratchet head
- Double scale N·m and lbf·ft underneath a window with a magnifying-glass effect
- N·m graduation of 10 N·m
- Black plastic handgrip with slip-resistant grained surface

TORCOFIX K Torque Wrench

As **TORCOFLEX K** but with:

- 1/2" interchangeable mushroom head-square drive with ball-locking mechanism
- Robust, silk-matt chrome-plated steel tube construction, with chrome-plated ratchet head and glass-fibre-reinforced plastic parts
- Additional micrometer scale with N·m graduation of 1 N·m
- With an indentation in the middle of the handgrip as a calibration aid

TORCOFIX UK Torque Wrench

As **TORCOFLEX K** but with:

- Adjustable torque wrench with 1/2" square drive and integrated reversible ratchet-head function
- Robust, silk-matt chrome-plated steel tube construction, with chrome-plated ratchet head and glass-fibre-reinforced plastic parts
- Additional micrometer scale with N·m graduation of 1 N·m
- With an indentation in the middle of the handgrip as a calibration aid

DREMOMETER BC Torque Wrench

Use:

- Controlled screw tightening in the range 40 - 200 N·m
- Ideal for the automotive industry
- Utilisation in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with 1/2" single square drive for controlled clockwise tightening (type BC no. 8573)
- 1/2" square drive with ball-locking mechanism DIN 3120 - A 12.5, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 5 N·m and 5 lbf·ft
- If ordering with pre-set-value locking and safety device lease specify the N·m value - if fixed factory-pre-setting is desired (price on request)

Further RAHSOL DREMOTEC Products and Torque Wrenches see GEDORE catalogue

3

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KL-0304



30mm bihex

Mercedes, BMW



KL-0305



32 mm bihex

KL-0307



34 mm bihex

Universal



KL-0306



36 mm bihex

KL-0308

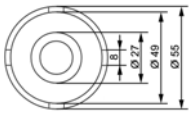


35 mm hex

KL-0301



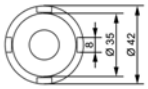
Mercedes



KL-0302



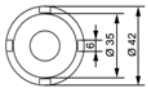
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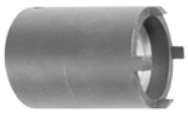
KL-0303



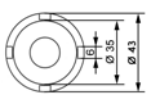
Mercedes



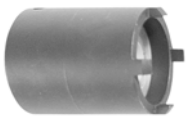
KL-0303-10



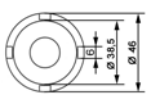
Mercedes



KL-0303-11



Mercedes



Special 12 Point Sockets

The special 12 point Sockets are suitable for removal and replacement of retaining nuts on front and rear axles, gearboxes and differentials.

KL-0304 Special 12-Point Socket

30 mm bihex
For **BMW E36, E46; Citroen Saxo; Ford Galaxy; Mercedes W123, W124, W126, W129, W201, W203, W211; Opel Astra F, Astra G; Renault Scenic, Clio, Kangoo; Toyota Avensis, Picnic and VW Golf III, Golf IV, Lupo, Touareg, T5 etc.**

Drive: .....1/2"☐ Length: .... 80 mm Weight:.....350 g

KL-0305 Special 12-Point Socket

32 mm bihex
For **Fiat Punto; Ford Escort, Mondeo; Mercedes W140; Nissan Almera; Opel Astra H, Vivaro; Subaru Outback etc**.

Drive: .....1/2"☐ Length: .... 75 mm Weight:.....450 g

KL-0307 Special 12-Point Socket

34 mm bihex
For **Fiat Marea, Lancia Lybra, Renault etc.**

Drive: .....1/2"☐ Length: .... 90 mm Weight:.....600 g

KL-0306 Special 12-Point Socket

36 mm bihex
For **Audi; BMW E36, E39, X5; Ford Transit; Seat Ibiza, Cordoba; Nissan Primera; VW Polo, Golf V, Touareg etc.**

Drive: .....1/2"☐ Length: .... 90 mm Weight:.....650 g

KL-0308 Special 6-Point Socket

35 mm hex
For **Peugeot 307, 407, 806 etc.**

Drive: .....1/2"☐ Length: .... 75 mm Gewicht:.....600 g

KL-0301 Toothed Socket

For **Mercedes W116, W123, W126** Rear Axle Drive Flange.

Drive: .....1/2"☐ Length: .... 80 mm Weigh:.....420 g

KL-0302 Toothed Socket

For **Mercedes** Gearbox Flange.

Drive: .....1/2"☐ Length: .... 70 mm Weight:.....440 g

KL-0303 Toothed Socket

For **Mercedes** Differential Flange.

Drive: .....1/2"☐ Length: .... 70 mm Weight:.....370 g

KL-0303-10 Toothed Socket

For **Mercedes G-Class (W460 / W461 / W463)**
Front Axle Wheel Bearing.

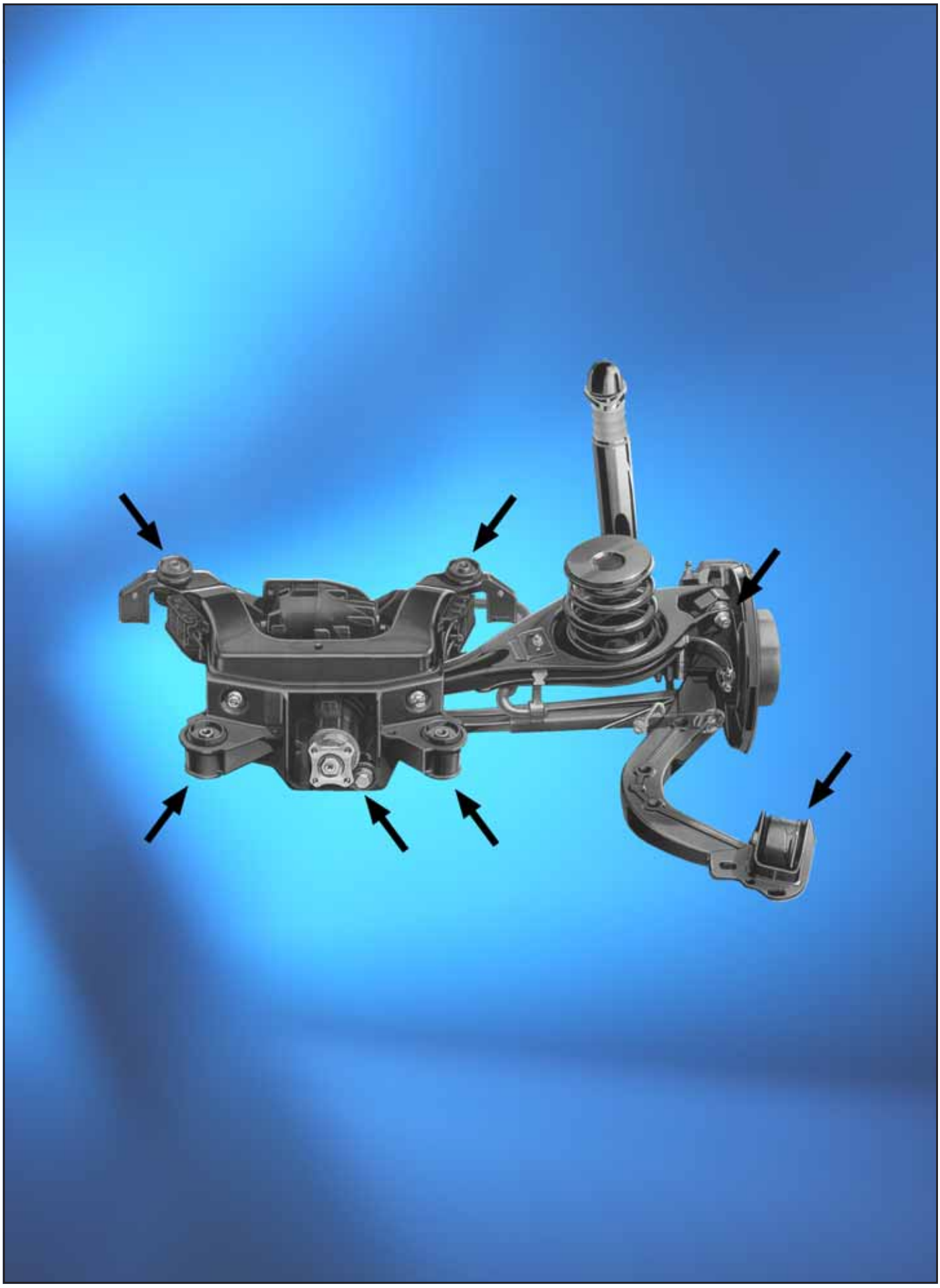
Drive: .....1/2"☐ Length: .... 70 mm Weight:.....370 g

KL-0303-11 Toothed Socket

For **Mercedes G-Class (W460 / W461 / W463)**
Front Axle Wheel Bearing.

Drive: .....1/2"☐ Length: .... 70 mm Weight:.....370 g

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4

Range of applications:

Silent blocks



Hydraulic mounts



Pivot bearing



Wheel hub



Wheel bearing



Wheel hub/bearing unit



The modular system

Universal application of KLANN Hydraulic Cylinder with

Pulling side

Bush Extractors

e.g. Audi A4



e.g. VW Golf IV



e.g. BMW





Wheel hub extractor

Universal





The Hydraulic Cylinder KL-0040-2500 is applicable for Pulling and Pressing

Wheel bearing tool sets

KL-0040-Series



KL-0041-Series



An hydraulic pump is required to operate the Hydraulic Cylinder KL-0040-2500. (see page 4-08)

e.g. KL-0215-35 M25



e.g. KL-0215-36 M25

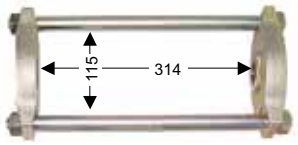


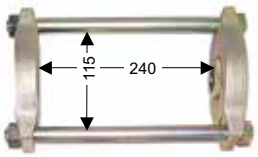
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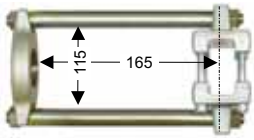
The modular system

Universal application of KLANN Hydraulic Cylinder with

Pressing Side









Press/Support tube sets (long)

e.g. VW-Audi



Press/Support tube sets (short)

e.g. BMW



Supplement sets

e.g. VW Polo



e.g. VW T4



Sleeve sets

e.g. Mercedes



Puller sets

KL-0174-Series



Range of applications:

Bushes



Ball Joint



Bushes



VW Ball Joints



Mercedes Ball Joints



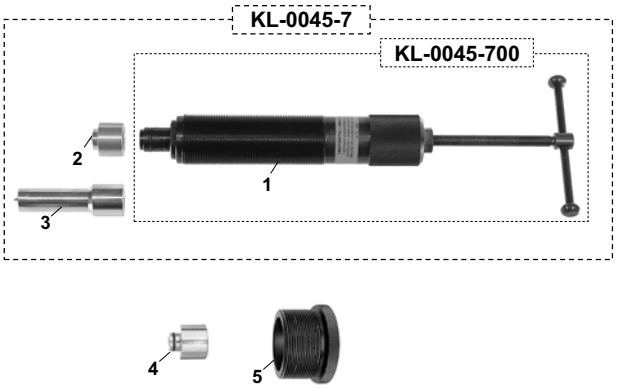
Drive Shafts



4

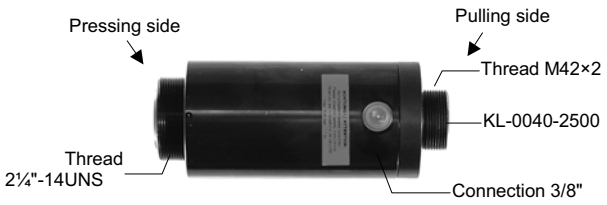
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KL-0045-70



Pos.	Part No.	Description
	KL-0045-70	**Hydraulic Spindle**
	consists of:	
1	KL-0045-700	Hydraulic Spindle Basic Tool
2	KL-0045-7009	Press Tool short (Length 10 mm)
3	KL-0045-7020	Press Tool long (Length 70 mm)
4	KL-0043-8206	Adaptor for Hydraulic Spindle Piston
5	KL-0174-552	Adaptor 2¼"-14UNS to M42x2

KL-0040-2500



Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0215-10



KL-0040-25



KL-0045-70 Hydraulic Spindle 12 t

The **KL-0045-70** is a hydraulic spindle with a 120 kN (12 t) capacity designed to fit a range of KLANN tool systems.

The tool consists of a machined, case hardened, threaded steel body with a pressure tip at one end which is fitted with a O-ring.

Technical Data:

Maximum force	120 kN (12 t)	**Length without 'T' Handle**	240 mm
Maximum stroke	16 mm		
Thread of Cylinder	M42×2	**Weight**	2,3 kg

KL-0045-700 Hydraulic Spindle 12 t M42x2

Tool Body without Press Tool and Adaptor

KL-0174-552 Adaptor 2 ¼"-14 UNS to M42x2

Required when using **KL-0174 Series** Puller Discs or the Klann Press Frame series KL-0043-82 / 85, etc.

KL-0043-8206 Adaptor for Hydraulic Spindle Piston

Adaptor for mounting the Press/Support Tools onto the Hydr. Spindle.

KL-0045-7009 Press Piece short

e.g. for extraction of Hubs in conjunction with Puller Discs series **KL-0174-...**

KL-0045-7020 Press Piece long

e.g. for extraction of Hubs in conjunction with Puller Discs series **KL-0174-...**

KL-0040-2500 Hydraulic Cylinder 17 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2500** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Applications:

The **KL-0040-2500** Hydraulic Cylinder may be used in conjunction with other KLANN tools to remove and replace Drive-Shafts, Hubs, Wheel Bearings, Bushes and Ball Joints.

Technical Data:

Maximum force:	170 kN (17 t)
Maximum stroke:	45 mm
Maximum Volume of Oil:	122 cm³
Piston Area:	27 cm²
Piston Thread:	M20
Retaining Thread Pressure Side:	2 ¼"-14 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	80 mm
Overall Length Retracted:	202 mm
Overall Length Extended:	247 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	5,2 kg

KL-0215-10 Hydraulic Cylinder
with Pressure Spindle

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (17 t) without spindle
KL-0040-2510	Pressure Spindle, length 350 mm

KL-0040-25 Hydraulic Cylinder
with Pulling Spindle

For use with the KLANN wheel-bearing tool or the wheel-hub puller **KL-0330**.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (17 t) without spindle
KL-0040-2512	Pulling Spindle, length 435 mm

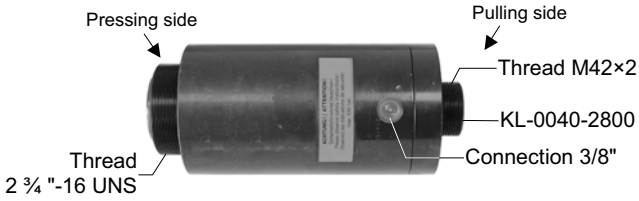
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KL-0040-2200



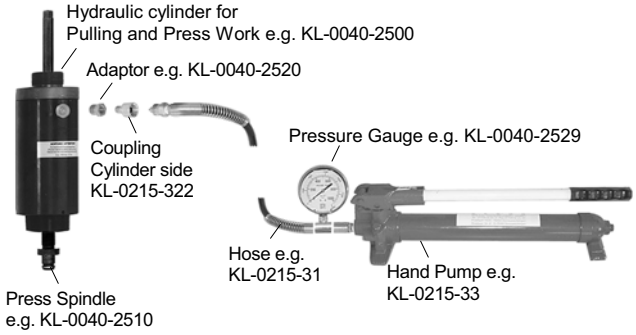
Note: A hydraulic pump will be required to drive the hydraulic cylinder **KL-0040-2200**.

KL-0040-2800

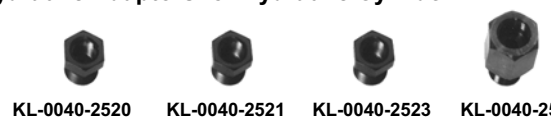


Note: A hydraulic pump will be required to drive the hydraulic cylinder **KL-0040-2800**.

Hydraulic drive:



Hydraulic Adaptors for Hydraulic Cylinder



KL-0040-2520 **KL-0040-2521** **KL-0040-2523** **KL-0040-2522**

Hydraulic Connectors



KL-0215-322 **KL-0215-321**

KL-0040-2561



Adaptor



KL-0040-2552 KL-0040-2551 KL-0174-559

KL-0040-2200 Hydraulic Cylinder 10 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2200** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Technical Data:

Maximum force:	105,8 kN (10 t)
Maximum stroke:	45 mm
Maximum Volume of Oil:	75,91 cm³
Piston Area:	15,11 cm²
Piston Thread:	M16/Ø 16,5
Retaining Thread Pressure Side:	2 ¼"-14 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	69 mm
Overall Length Retracted:	217,5 mm
Overall Length Extended:	262,5 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	4,65 kg

KL-0040-2800 Hydraulic Cylinder 28 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2800** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Technical Data:

Maximum force:	285 kN (28 t)
Maximum stroke:	50 mm
Maximum Volume of Oil:	216,3 cm³
Piston Area:	40,6 cm²
Piston Thread:	M24
Retaining Thread Pressure Side:	2 ¾ "-16 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	99 mm
Overall Length Retracted:	235 mm
Overall Length Extended:	285 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	9,6 kg

Hydraulic Accessory - Adaptors

If an existing Hydraulic Pump is to be used to power Hydraulic Cylinder **KL-0040-2500**, it should be noted that Hydraulic Cylinder **KL-0040-2500** is supplied with 3/8"NPT Connector coupling. It is likely that an adaptor will be required to connect the existing Pump to Hydraulic Cylinder **KL-0040-2500** (see Table below).

Part No:	Description	
KL-0040-2520	Adaptor 3/8"NPT to1/4"NPT	(eg. KLANN, Longus, Rodcraft)
KL-0040-2521	Adaptor 3/8" NPT to M16×1.5	(eg. Matra)
KL-0040-2522	Adaptor 3/8" NPT to M18×1.5	(eg. Weber)
KL-0040-2523	Adaptor 3/8" NPT to G1/4"	(eg. Nike)
Note: Hydraulic Cylinders from Blackhawk, Car Bench, Celette, Enerpac, OTC and Yale have 3/8"NPT-couplings		

Hydraulic Accessory - Couplings

Part No:	Description
KL-0215-321	Coupling Hose side 1/4" NPT
KL-0215-322	Coupling Cylinder side 1/4" NPT

Press Piece

KL-0040-2561 Press Piece

Suitable for the **KL-0040-2510** Spindle used in conjunction with the **KL-0040-2500** Hydraulic Cylinder to press out Loctited Drive-Shafts.

Adaptor

KL-0040-2552 M42x2 to Ø30 mm

Required if the various Press/Support Tools of the KLANN **KL-0043-82** and **KL-0043-85** Press Tools are to be used.

KL-0040-2551 M42x2 to Ø30 mm

Required if the various Pressure Discs of the KLANN **KL-0040-... Series** Wheel Bearing Tool are to be used.

KL-0174-559 Adaptor 2¼"-14UNS to 2¼"-14UNS

Required for the use of Hydraulic Cylinders **KL-0215-10** and **KL-0040-25** in conjunction with Puller Discs size 1 and 2 with PCD Ø of 90 - 102 mm.

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Spindles and nuts

KL-0040-2510



KL-0040-2541



KL-0040-2542



KL-0040-2543



KL-0040-2543-5



KL-0040-2543-3



KL-0040-2544



KL-0040-2545-1



KL-0040-2545-3



KL-0040-2512



KL-0040-2546-1



KL-0040-2547-1



KL-0040-3009



KL-0330-0009



KL-0041-3811



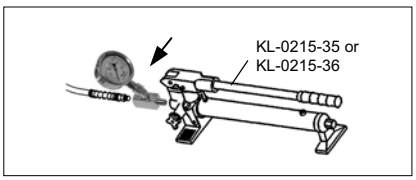
KL-0041-3812



Note: For further spindles and nuts of the KL-0039-..Series see page 4-11.

KL-0040-2529





KL-0040-2590





Accessories for KL-0040-2500 Hydr. Cylinder (17t.)

Spindles and Nuts

KL-0040-2510 Press Spindle
Length: ..... 350mm Load $_{max.}$ ..... 20 t.

KL-0040-2541 Pull Spindle M10x1,25, with Nut
Length: ..... 470 mm Load $_{max.}$ ..... 5 t

consists of:
KL-0040-2541-1 - Pull Spindle M10x1,25
KL-0040-2541-2 - Nut M10x1,25

KL-0040-2542 Pull Spindle M12, with Nut
Length: ..... 470 mm Load $_{max.}$ ..... 7 t

consists of:
KL-0040-2542-1 - Pull Spindle M12
KL-0040-2542-2 - Nut M12

KL-0040-2543 Pull Spindle M14, with Nut
Length: ..... 470 mm Load $_{max.}$ ..... 9 t

consists of:
KL-0040-2543-1 - Pull Spindle M14
KL-0040-2543-2 - Nut M14

KL-0040-2543-5 Pull Spindle M14
Length: ..... 550 mm Load $_{max.}$ ..... 9 t

KL-0040-2543-3 Pull Spindle extension M14
Length: ..... 345 mm Load $_{max.}$ ..... 9 t

KL-0040-2544 Pull Spindle M16, with Nut
Length: ..... 470 mm Load $_{max.}$ ..... 13 t

consists of:
KL-0040-2544-1 - Pull Spindle M16
KL-0040-2544-2 - Nut M16

KL-0040-2545-1 Pull Spindle M18
Length: ..... 650 mm Load $_{max.}$ ..... 16 t

KL-0040-2545-3 Nut M18

KL-0040-2512 Pull Spindle M20
Length: ..... 465 mm Load $_{max.}$ ..... 20 t

KL-0040-2546-1 Pull Spindle M20
Length: ..... 550 mm Load $_{max.}$ ..... 20 t

KL-0040-2547-1 Pull Spindle M20
Length: ..... 550 mm Load $_{max.}$ ..... 20 t

KL-0040-3009 Hex Nut M20
KL-0330-0009 Tension Nut (for Wheel Hubs) M20
KL-0041-3811 Hex Nut Ø 38 mm
KL-0041-3812 Hex Nut Ø 30 mm

KL-0040-2529 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation.

The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2500**.

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2528 Pressure Gauge (not ill.)

As **KL-0040-2529** but with connection thread 3/8“NPT
(e.g. for KL-0215-37)

KL-0040-2590 Safety belt

By using the safety belt **KL-0040-2590** on the vehicle and on the Hydraulic Cylinder **KL-0040-2500**, the latter is prevented from falling off.

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Spindles and nuts

KL-0040-2241

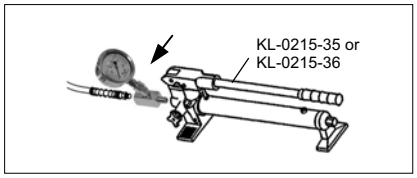


KL-0040-2242



KL-0040-2229





KL-0040-2290





Spindles and Nuts

KL-0040-2810

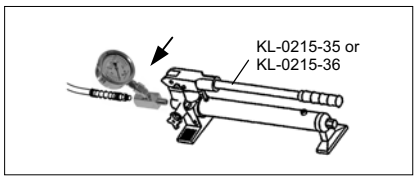


KL-0040-2812



KL-0040-2829





KL-0040-2890





Accessories for KL-0040-2200 Hydraulic-Cylinder (10 t.)

Spindles

KL-0040-2241 Press Spindle
Length: ..... 350 mm Load $_{max.}$ ..... 13 t.

KL-0040-2242 Pull Spindle M16 x 590 with nut
Length: ..... 590 mm Load $_{max.}$ ..... 13 t

consists of:
KL-0040-2242-1 - Pull spindle M16 x 590
KL-0039-1916-2 - Nut M16

KL-0040-2229 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation

The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2200.**

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2228 Pressure Gauge (not ill.)

As **KL-0040-2229** but with connector thread 3/8“ NPT.
(e.g. für KL-0215-37)

KL-0040-2290 Safety belt

By using the safety belt **KL-0040-2290** on the vehicle and on the Hydraulic Cylinder **KL-0040-2200**, the latter is prevented from falling off.

Accessories for KL-0040-2800 Hydraulic-Cylinder (28 t.)

Spindles

KL-0040-2810 Press Spindle
Length: ..... 405 mm Load $_{max.}$ ..... 28 t.

KL-0040-2812 Pull Spindle M24 x 590 with nut
Lenght: ..... 590 mm Load $_{max.}$ ..... 28 t

consists of:
KL-0040-2812-1 - Pull spindle M24 x 590
KL-0040-2812-2 - Actuating nut Ø42, M24

KL-0040-2829 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation
The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2800.**

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2828 Pressure Gauge (not ill.)

As **KL-0040-2829** but with connector thread 3/8“ NPT.
(e.g. für KL-0215-37)

KL-0040-2890 Safety belt

By using the safety belt **KL-0040-2890** on the vehicle and on the Hydraulic Cylinder **KL-0040-2800**, the latter is prevented from falling off.

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KL-0215-35 M25



Note:
Hydraulic hand pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request.

KL-0215-37 M25



Note:
Hydraulic foot pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request

KL-0215-36 M25



Note:
Air driven hydraulic pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request.

KL-0215-35 M25 Hydraulic Hand Pump

The Hydraulic Hand Pump **KL-0215-35 M25** may be used in conjunction with Hydraulic Cylinder (17 t.) **KL-0040-2500** to operate a variety of KLANN Pulling and Pressing tools.
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2529**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Specification: (KL-0215-35 M25)

Part No.	Description	Qty.
KL-0215-33	Hydraulic Hand Pump (without Hose)	1
KL-0215-31	Hydraulic Hose 1,8 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2529	Pressure Gauge	1

Weight: .....7,5 kg Max. Pressure:.....700 bar

KL-0215-35 Hydraulic Hand Pump (not ill.)

As **KL-0215-35 M25**, but without pressure gauge **KL-0040-2529**.

KL-0215-37 M25 Hydraulic Foot Pump

The Hydraulic Foot Pump **KL-0215-37 M25** can be used to power KLANN Press and Puller Tools fitted with Hydraulic Cylinder (17 t.) **KL-0040-2500**.
Advantage: *Both hands free to work.*
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2528**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Specification: (KL-0215-37 M25)

Part No.	Description	Qty.
KL-0215-370	Hydraulic Foot Pump (without Hose)	1
KL-0215-371	Hydraulic Hose 2,5 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2528	Pressure Gauge	1

Weight: ..... 11 kg Max. Pressure.:.....700 bar

KL-0215-37 Hydraulic Foot Pump (not ill.)

As **KL-0215-37 M25**, but without pressure gauge **KL-0040-2528**.

KL-0215-36 M25 Air-Driven Hydraulic Pump

Compressed air is used to operate the **KL-0215-36 M25** Operation is by a foot-pedal with 3 positions - forwards, stop and backwards.
The air-operated Hydraulic Pump can be used in conjunction with Hydraulic Cylinder (17 t.) **KL-0040-2500** nd KLANN tools for Bushes, Ball-Joints, Bearings, Drive-Shafts etc.
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2529**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Technical Data:

Maximum Pressure:	700 bar
Operating Pressure:	8 - 12 bar
Weight:	8 kg

Specification: (KL-0215-36 M25)

Part No.	Description	Qty.
KL-0215-360	Hydraulic pump (without Hose)	1
KL-0215-362	Hydraulic Hose 2,5 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2529	Pressure Gauge	1

KL-0215-36 Air-Driven Hydraulic Pump (not ill.)

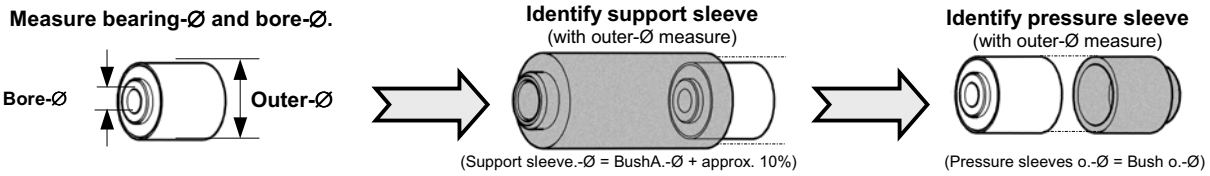
As **KL-0215-36 M25**, but without pressure gauge **KL-0040-2529.**

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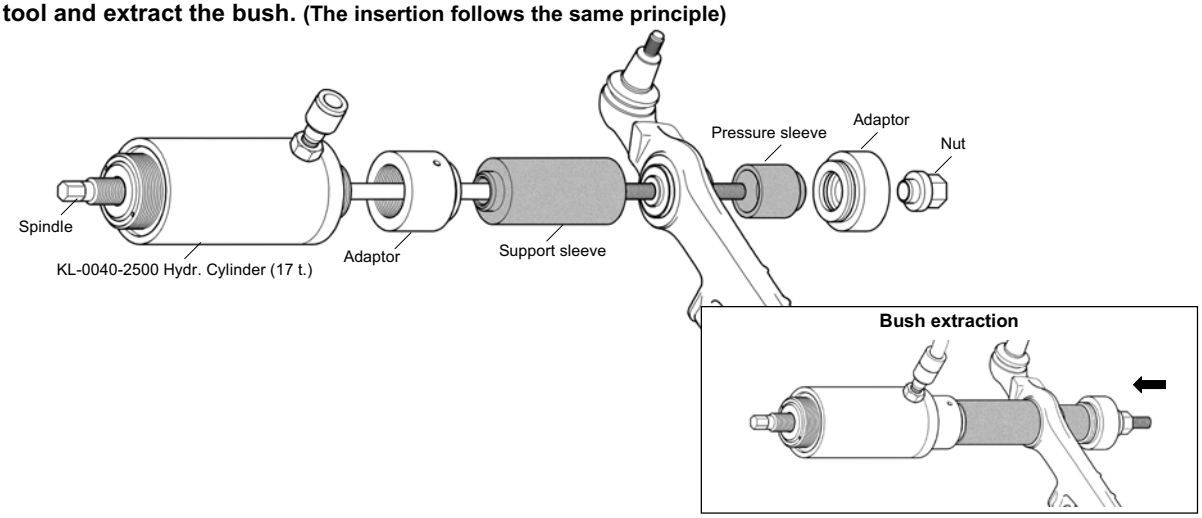
The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

Application example: *Bush extraction / insertion by using a Puller Spindle.*

1. **Configuration of the required pieces and tool assembling:**
   Measure bush-Ø, identify spindle, pressure and support sleeve. (See table page 4-11, 4-12)

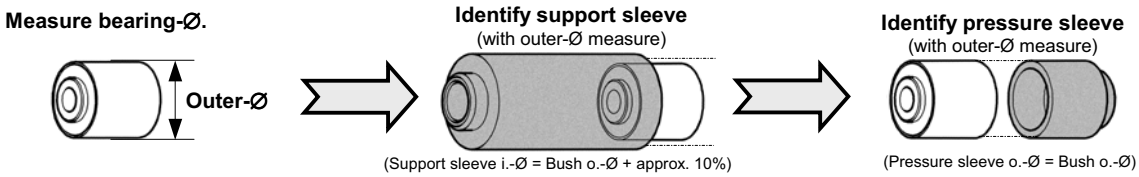


2. **Mount the tool and extract the bush. (The insertion follows the same principle)**

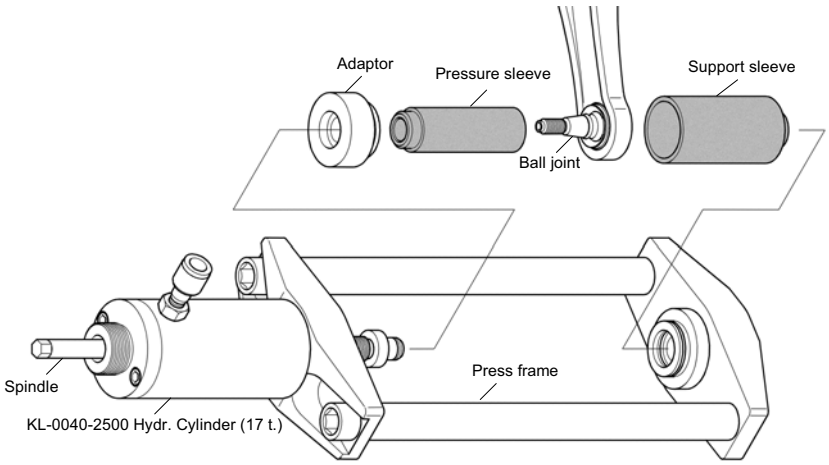


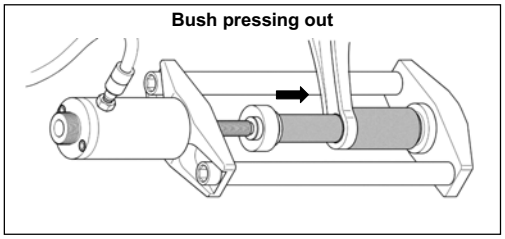
Application example: *Ball Joint / Bush extraction / insertion with Press Frame.*

1. **Configuration of the required pieces and tool assembling:**
   Measure the bush outer-Ø, identify pressure and support sleeve. (See table page 4-11, 4-12)



2. **Mount the tool and press the ball joint out. (The insertion follows the same principle)**





Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 4-08.

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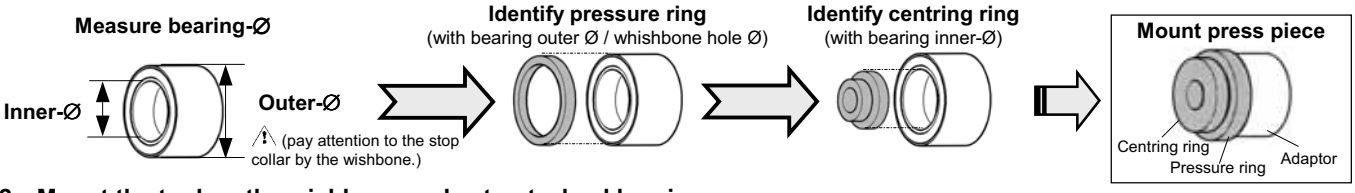
The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

The big advantages of the new and unique bearing/bush tools are:

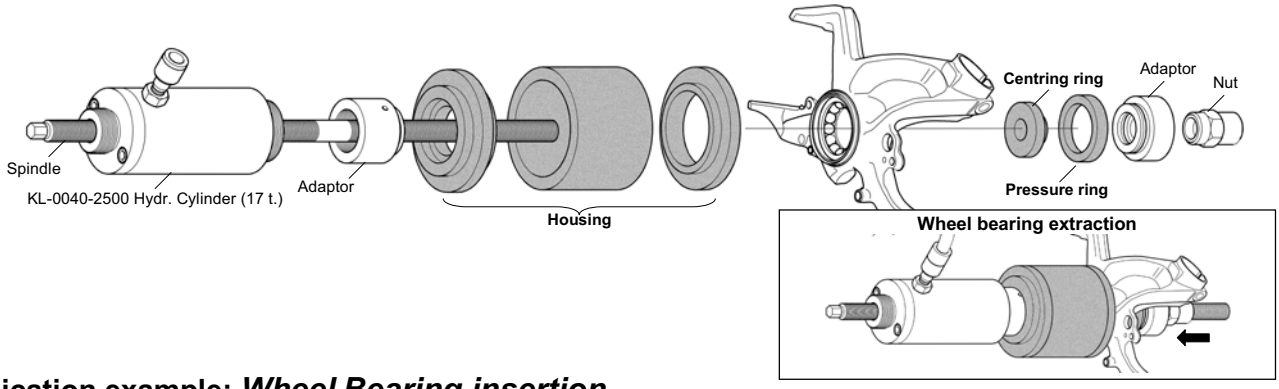
- **Modular system provided with a versatile hydraulic drive (KL-0040-2500), two adaptors and universally combinable centring and pressure rings as well as pressure and support sleeves.**
- **Universal field of application.**
- **Huge time and cost savings due to the easy assembling of the required tool.**

Application example: *Wheel bearing extraction.*

1. **Configuration of the required pieces and tool assembling:**
   Measure inner-/outer-Ø, identify pressure and centring rings. (see table page 4-11)

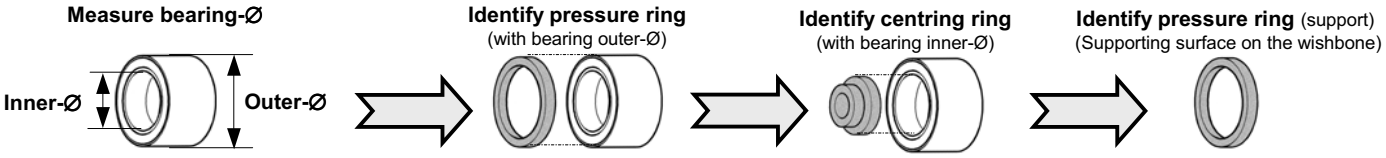


2. **Mount the tool on the wishbone and extract wheel bearing.**

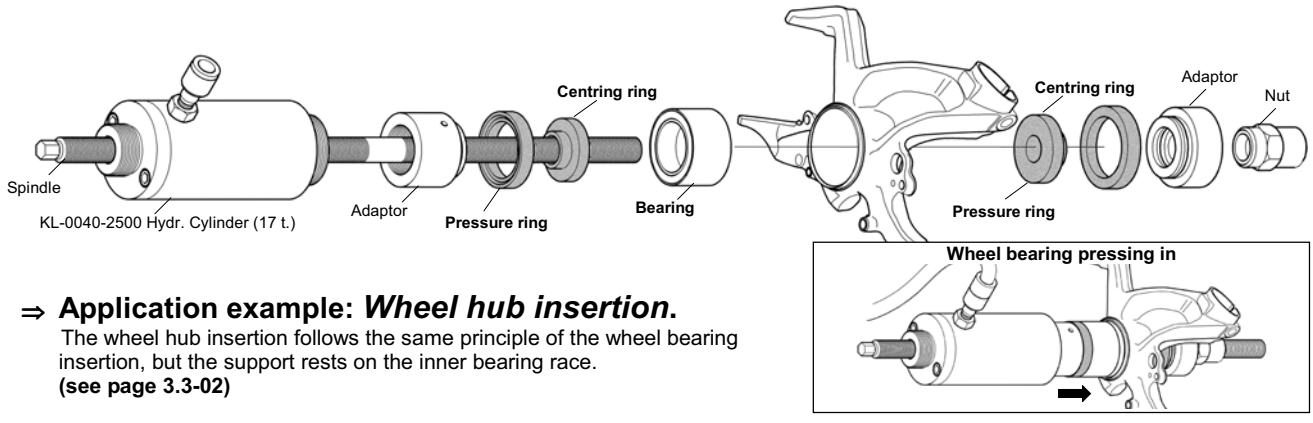


Application example: *Wheel Bearing insertion.*

1. **Configuration of the required pieces and tool assembling:**
   Measure inner-/outer-Ø, identify pressure and centring ring (wheel bearing), identify pressure ring (wheel bearing housing support) (see table page 4-11)



2. **Mount the tool on the wishbone and press the wheel bearing in.**

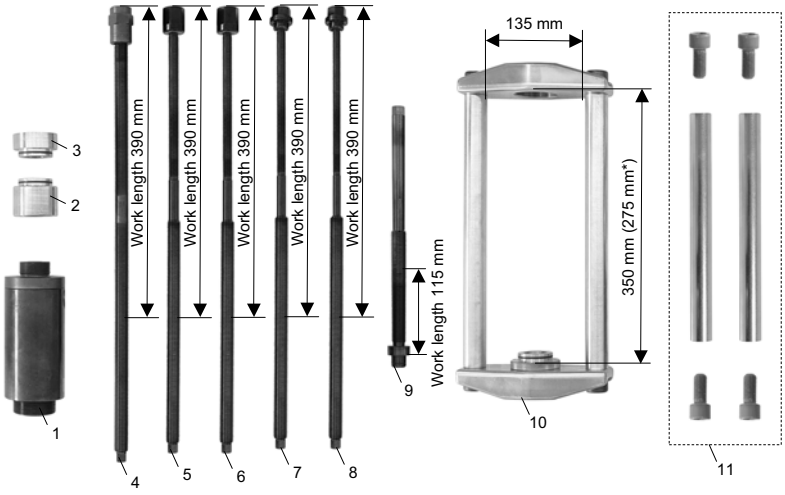


⇒ **Application example: *Wheel hub insertion.***
The wheel hub insertion follows the same principle of the wheel bearing insertion, but the support rests on the inner bearing race.
(see page 3.3-02)

Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 4-08.

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KL-0039-Series Wheel Bearing / Silent Block Tool



Drive and base parts

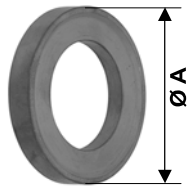
Pos.	Part No.	Description	Qty.
Cylinder:			
1	KL-0040-2500	Hydraulic-cylinder 17 t	1
Adaptor:			
2	KL-0039-1003	Retain adaptor for hydraulic cylinder	1
3	KL-0039-1002	Retain adaptor for Nut M20	1
Spindeln:			
4	KL-0039-1920	Spindle M20 with clamping nut	1
5	KL-0039-1916	Spindle M16 with shoulder nut	1
6	KL-0039-1914	Spindle M14 with shoulder nut	1
7	KL-0039-1912	Spindle M12 with shoulder nut	1
8	KL-0039-1910	Spindle M10x1.25 with shoulder nut	1
9	KL-0039-1930	Pressure Spindle	1
Press frame:			
10	KL-0039-1130	Press frame	1
Zubehör:			
11	KL-0039-111	Frame rods 285 mm long	1

* If using the frame rods KL-0039-111.

4

Application parts ⇒ *Wheel bearing*

Pressure ring:



KL-0039-120 Pressure ring set Ø 54 - 90 mm (Inner-Ø 46 mm):

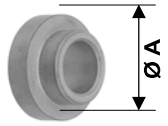
Part No.	Description	Ø A
KL-0039-1254	Pressure ring Ø54	Ø54
KL-0039-1260	Pressure ring Ø60	Ø60
KL-0039-1261	Pressure ring Ø61	Ø61
KL-0039-1262	Pressure ring Ø62	Ø62
KL-0039-1263	Pressure ring Ø63	Ø63
KL-0039-1264	Pressure ring Ø64	Ø64
KL-0039-1265	Pressure ring Ø65	Ø65
KL-0039-1266	Pressure ring Ø66	Ø66
KL-0039-1267	Pressure ring Ø67	Ø67
KL-0039-1268	Pressure ring Ø68	Ø68
KL-0039-1269	Pressure ring Ø69	Ø69

Part No.	Description	Ø A
KL-0039-1270	Pressure ring Ø70	Ø70
KL-0039-1271	Pressure ring Ø71	Ø71
KL-0039-1272	Pressure ring Ø72	Ø72
KL-0039-1273	Pressure ring Ø73	Ø73
KL-0039-1274	Pressure ring Ø74	Ø74
KL-0039-1275	Pressure ring Ø75	Ø75
KL-0039-1276	Pressure ring Ø76	Ø76
KL-0039-1277	Pressure ring Ø77	Ø77
KL-0039-1278	Pressure ring Ø78	Ø78
KL-0039-1279	Pressure ring Ø79	Ø79
KL-0039-1280	Pressure ring Ø80	Ø80

Part No.	Description	Ø A
KL-0039-1281	Pressure ring Ø81	Ø81
KL-0039-1282	Pressure ring Ø82	Ø82
KL-0039-1283	Pressure ring Ø83	Ø83
KL-0039-1284	Pressure ring Ø84	Ø84
KL-0039-1285	Pressure ring Ø85	Ø85
KL-0039-1286	Pressure ring Ø86	Ø86
KL-0039-1287	Pressure ring Ø87	Ø87
KL-0039-1288	Pressure ring Ø88	Ø88
KL-0039-1289	Pressure ring Ø89	Ø89
KL-0039-1290	Pressure ring Ø90	Ø90

Accessory:		
KL-0039-1502	Pressure ring Ø93	Ø93

Centring ring:



KL-0039-130 Centring ring set Ø 25 - 60 mm:

Part No.	Description	Ø A
KL-0039-1325	Centring ring Ø25	Ø25
KL-0039-1326	Centring ring Ø26	Ø26
KL-0039-1327	Centring ring Ø27	Ø27
KL-0039-1328	Centring ring Ø28	Ø28
KL-0039-1329	Centring ring Ø29	Ø29
KL-0039-1330	Centring ring Ø30	Ø30
KL-0039-1331	Centring ring Ø31	Ø31
KL-0039-1332	Centring ring Ø32	Ø32
KL-0039-1333	Centring ring Ø33	Ø33
KL-0039-1334	Centring ring Ø34	Ø34
KL-0039-1335	Centring ring Ø35	Ø35
KL-0039-1336	Centring ring Ø36	Ø36

Part No.	Description	Ø A
KL-0039-1337	Centring ring Ø37	Ø37
KL-0039-1338	Centring ring Ø38	Ø38
KL-0039-1339	Centring ring Ø39	Ø39
KL-0039-1340	Centring ring Ø40	Ø40
KL-0039-1341	Centring ring Ø41	Ø41
KL-0039-1342	Centring ring Ø42	Ø42
KL-0039-1343	Centring ring Ø43	Ø43
KL-0039-1344	Centring ring Ø44	Ø44
KL-0039-1345	Centring ring Ø45	Ø45
KL-0039-1346	Centring ring Ø46	Ø46
KL-0039-1347	Centring ring Ø47	Ø47
KL-0039-1348	Centring ring Ø48	Ø48

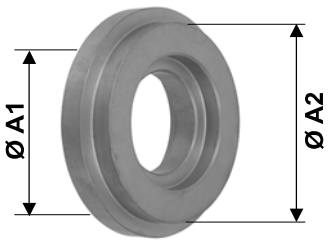
Part No.	Description	Ø A
KL-0039-1349	Centring ring Ø49	Ø49
KL-0039-1350	Centring ring Ø50	Ø50
KL-0039-1351	Centring ring Ø51	Ø51
KL-0039-1352	Centring ring Ø52	Ø52
KL-0039-1353	Centring ring Ø53	Ø53
KL-0039-1354	Centring ring Ø54	Ø54
KL-0039-1355	Centring ring Ø55	Ø55
KL-0039-1356	Centring ring Ø56	Ø56
KL-0039-1357	Centring ring Ø57	Ø57
KL-0039-1358	Centring ring Ø58	Ø58
KL-0039-1359	Centring ring Ø59	Ø59
KL-0039-1360	Centring ring Ø60	Ø60

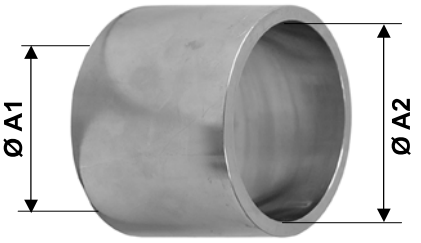
KL-0039-140 Housing set (bearing extension):

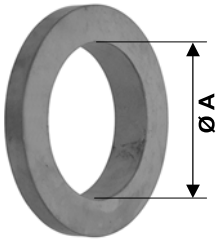
Bearing cap:		Housing:		Centring rings:	
Part No.	Description	Part No.	Description	Part No.	Description
KL-0039-1401	Bearing cap Ø A1: 84 / Ø A2: 90	KL-0039-1402	Housing Ø A1: 84 / Ø A2: 90	KL-0039-1413	Centring ring Ø A: 70
				KL-0039-1414	Centring ring Ø A: 75
				KL-0039-1415	Centring ring Ø A: 80

Special plates:

Part No.	Description
KL-0039-1503	Adaptor ring conical
KL-0039-1504	Adaptor ring conical
KL-0039-1505	Adaptor ring cylindric







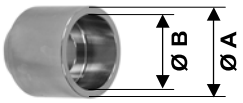


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KL-0039- Series Wheel Bearing / Silent Block Tool

Application pieces ⇒ *Silent Block*

Press/Support Tube Type 1:

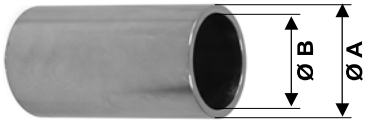


KL-0039-160 Press/Support Tube Set Ø30 - 90mm Type 1 (Length: 45 mm):

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1630	Press/Support Tube short Ø30	Ø30	Ø22	KL-0039-1642	Press/Support Tube short Ø42	Ø42	Ø34
KL-0039-1632	Press/Support Tube short Ø32	Ø32	Ø24	KL-0039-1644	Press/Support Tube short Ø44	Ø44	Ø36
KL-0039-1634	Press/Support Tube short Ø34	Ø34	Ø26	KL-0039-1646	Press/Support Tube short Ø46	Ø46	Ø38
KL-0039-1636	Press/Support Tube short Ø36	Ø36	Ø28	KL-0039-1648	Press/Support Tube short Ø48	Ø48	Ø40
KL-0039-1638	Press/Support Tube short Ø38	Ø38	Ø30	KL-0039-1650	Press/Support Tube short Ø50	Ø50	Ø42
KL-0039-1640	Press/Support Tube short Ø40	Ø40	Ø32	KL-0039-1652	Press/Support Tube short Ø52	Ø52	Ø44

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1654	Press/Support Tube short Ø54	Ø54	Ø46	KL-0039-1674	Press/Support Tube short Ø74	Ø74	Ø66
KL-0039-1656	Press/Support Tube short Ø56	Ø56	Ø48	KL-0039-1676	Press/Support Tube short Ø76	Ø76	Ø68
KL-0039-1658	Press/Support Tube short Ø58	Ø58	Ø50	KL-0039-1678	Press/Support Tube short Ø78	Ø78	Ø70
KL-0039-1660	Press/Support Tube short Ø60	Ø60	Ø52	KL-0039-1680	Press/Support Tube short Ø80	Ø80	Ø72
KL-0039-1662	Press/Support Tube short Ø62	Ø62	Ø54	KL-0039-1682	Press/Support Tube short Ø82	Ø82	Ø74
KL-0039-1664	Press/Support Tube short Ø64	Ø64	Ø56	KL-0039-1684	Press/Support Tube short Ø84	Ø84	Ø76
KL-0039-1666	Press/Support Tube short Ø66	Ø66	Ø58	KL-0039-1686	Press/Support Tube short Ø86	Ø86	Ø78
KL-0039-1668	Press/Support Tube short Ø68	Ø68	Ø60	KL-0039-1688	Press/Support Tube short Ø88	Ø88	Ø80
KL-0039-1670	Press/Support Tube short Ø70	Ø70	Ø62	KL-0039-1690	Press/Support Tube short Ø90	Ø90	Ø82
KL-0039-1672	Press/Support Tube short Ø72	Ø72	Ø64				

Press/Support Tube Type 2:



KL-0039-170 Press/Support Tube Set Ø30 - 90mm Type 2 (Length: 115 mm):

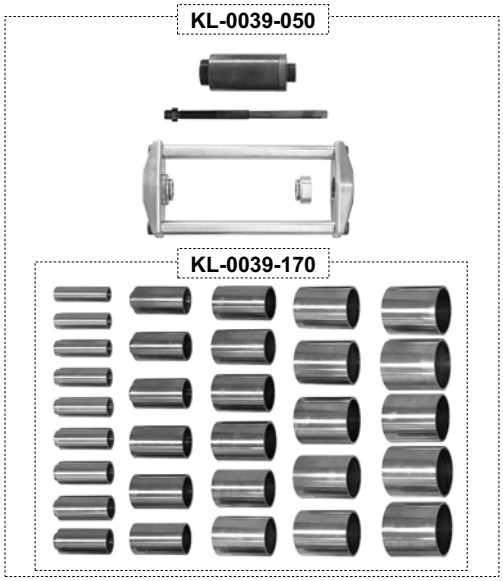
Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1730	Press/Support Tube long Ø30	Ø30	Ø22	KL-0039-1742	Press/Support Tube long Ø42	Ø42	Ø34
KL-0039-1732	Press/Support Tube long Ø32	Ø32	Ø24	KL-0039-1744	Press/Support Tube long Ø44	Ø44	Ø36
KL-0039-1734	Press/Support Tube long Ø34	Ø34	Ø26	KL-0039-1746	Press/Support Tube long Ø46	Ø46	Ø38
KL-0039-1736	Press/Support Tube long Ø36	Ø36	Ø28	KL-0039-1748	Press/Support Tube long Ø48	Ø48	Ø40
KL-0039-1738	Press/Support Tube long Ø38	Ø38	Ø30	KL-0039-1750	Press/Support Tube long Ø50	Ø50	Ø42
KL-0039-1740	Press/Support Tube long Ø40	Ø40	Ø32	KL-0039-1752	Press/Support Tube long Ø52	Ø52	Ø44

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1754	Press/Support Tube long Ø54	Ø54	Ø46	KL-0039-1774	Press/Support Tube long Ø74	Ø74	Ø66
KL-0039-1756	Press/Support Tube long Ø56	Ø56	Ø48	KL-0039-1776	Press/Support Tube long Ø76	Ø76	Ø68
KL-0039-1758	Press/Support Tube long Ø58	Ø58	Ø50	KL-0039-1778	Press/Support Tube long Ø78	Ø78	Ø70
KL-0039-1760	Press/Support Tube long Ø60	Ø60	Ø52	KL-0039-1780	Press/Support Tube long Ø80	Ø80	Ø72
KL-0039-1762	Press/Support Tube long Ø62	Ø62	Ø54	KL-0039-1782	Press/Support Tube long Ø82	Ø82	Ø74
KL-0039-1764	Press/Support Tube long Ø64	Ø64	Ø56	KL-0039-1784	Press/Support Tube long Ø84	Ø84	Ø76
KL-0039-1766	Press/Support Tube long Ø66	Ø66	Ø58	KL-0039-1786	Press/Support Tube long Ø86	Ø86	Ø78
KL-0039-1768	Press/Support Tube long Ø68	Ø68	Ø60	KL-0039-1788	Press/Support Tube long Ø88	Ø88	Ø80
KL-0039-1770	Press/Support Tube long Ø70	Ø70	Ø62	KL-0039-1790	Press/Support Tube long Ø90	Ø90	Ø82
KL-0039-1772	Press/Support Tube long Ø72	Ø72	Ø64				

Note:
For more info require the specific brochure!

Accessories

Part No.	Description	Ø A	Ø B	Part No.	Description	Ø A	Ø B
KL-0039-1802	Centring tube long Ø27.5	Ø27.5	Ø20.5	KL-0039-1803	Centring tube long Ø29.7	Ø29.5	Ø22



KL-0039-050 Hydraulic Press Tool Kit

Universally suitable to press in and out bushes, ball joints, sockets, etc.

The compact structure of the press frame allows operation flexibility as well as the possibility to operate directly by the vehicle.

The possibility to complete the tool kit with further components of the **KL-0039-.. Serie** such as puller spindle, thrust sleeve, support sleeve or eccentric ring and thrust pad makes this tool almost universally applicable e.g. also for bush extractors, wheel bearing tools, wheel hub press tools, etc.

Specification:

Part No.	**consists of:** (Tool sets are marked fat)
KL-0039-050	KL-0039-1130, KL-0039-1002, KL-0040-2500, KL-0039-1930, **KL-0039-170**

KL-0039-170	Single parts see above!

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KL-0043-82



Ball joint insertion



KL-0043-83



Bush extraction



KL-0043-85



Ball joint extraction



KL-0043-850



Note: To use the Hydraulic Cylinder **KL-0040-2500** a hydraulic pump is necessary.

Hydraulic Press Tool Kits

The following hydraulic press tool kits allow the exchange of metalastic bushes, ball joints and steering joints without dismantling the suspension.

The large variety of pressing tubes and the special design of the press frame gives this tool a universal application.

The following tool kits differ only in their contents.

KL-0043-82 Press Tool Set Univ.

consists of:

Part No.	Description
KL-0045-70	Hydraulic Spindle 12 t
KL-0043-8200	Press Frame (long)
KL-0043-8295	Press Tube Set (long)
KL-0043-8290	Wooden Plate

KL-0043-820 Press Tool Kit without drive

As **KL-0043-82**, but **without** hydraulic spindle **KL-0045-7**. (not ill.).

KL-0043-83 Press Tool Set Univ.

consists of:

Part No.	Description
KL-0045-70	Hydraulic Spindle 12t
KL-0043-8510	Press Frame
KL-0043-8295	Press Tube Set (long)
KL-0043-8595	Press Tube Set (short)
KL-0043-8550	Wooden Plate

KL-0043-85 Press Tool Set Univ.

As **KL-0043-83**, but **with Hydraulic Cylinder KL-0215-10** (17 t) instead of hydraulic spindle **KL-0045-70**.

KL-0043-850 Press Tool Kit without drive

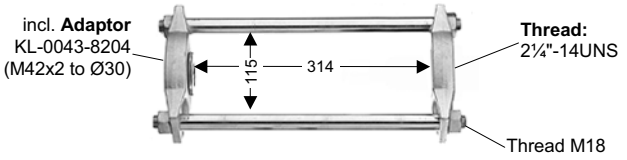
As **KL-0043-85**, but **without hydraulic cylinder KL-0215-10.**

Note:
When the press tool kit **KL-0043-850** has to be used together with the hydraulic spindle **KL-0045-70** the adaptors **KL-0043-8206** and **KL-0174-552** are required.

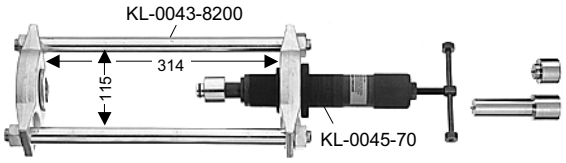
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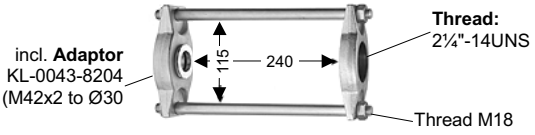
KL-0043-8200



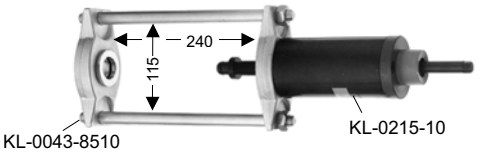
KL-0043-8211



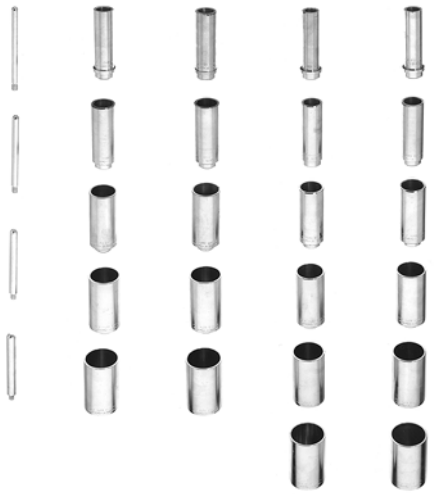
KL-0043-8510



KL-0043-8512



KL-0043-8295 Press Tube Set long (Length 110 mm)



KL-0043-8595 Press Tube Set short (Length 40 mm)



KL-0043-8200 Press Frame (max. 17 t)

Long version, without drive.
Inner Overall Length:.....314 mm Inner Width:.....115 mm

consists of:

Part No.	Description	Qty.
KL-0043-8501-A	Base plate M42 X 2	1
KL-0043-8501-C	Base plate 2 ¼-14 UNS	1
KL-0043-8202-P	Tie Rods M18 (long) with hex. Nuts	1
KL-0043-8204	Adaptor M 42 X 2 to Ø30 with O-ring	1

Note: The Press Frame **KL-0043-8200** is always to be used with two long Press/Support Tubes.

KL-0043-8210 Press Frame (max. 17 t)

As **KL-0043-8200** but with the **KL-0174-552** Adaptor to accept the **KL-0045-7** Hydraulic Spindle (not Ill.)
Inner Overall Length:.....314 mm Inner Width:.....115 mm

KL-0043-8211 Press Frame (max. 17 t)

As **KL-0043-8210**, but inclusive Hydraulic Spindle **KL-0045-70** (12 t).

KL-0043-8510 Press Frame (max. 17 t)

Short version, without drive.
Inner Overall Length:.....240 mm Inner Width:.....115 mm

consists of:

Part No.	Description	Qty.
KL-0043-8501-A	Base plate M42 X 2	1
KL-0043-8501-C	Base plate 2 ¼-14 UNS	1
KL-0043-8502-P	Tie Rods M18 (short) with hex. Nuts	1
KL-0043-8204	Adaptor M 42 X 2 to Ø30 with O-ring	1

Note: The Press Frame **KL-0043-8510** is always to be used with one long and one short Press/Support Tube.

KL-0043-8512 Press Frame (max. 17 t)

As **KL-0043-8510**, but inclusive Hydraulic Cylinder **KL-0215-10** (17 t).

KL-0043-8295 Press Tube Set long (110 mm)

Part No..	Outer-Ø	Inner-Ø
KL-0043-8260	26 mm	18 mm
KL-0043-8261	28 mm	20 mm
KL-0043-8262	30 mm	22 mm
KL-0043-8263	32 mm	24 mm
KL-0043-8264	34 mm	26 mm
KL-0043-8265	36 mm	28 mm
KL-0043-8266	38 mm	30 mm
KL-0043-8267	40 mm	32 mm
KL-0043-8268	42 mm	34 mm
KL-0043-8269	44 mm	36 mm
KL-0043-8270	46 mm	38 mm
KL-0043-8271	48 mm	40 mm
KL-0043-8272	50 mm	42 mm

Part No.	Outer-Ø	Inner-Ø
KL-0043-8273	52 mm	44 mm
KL-0043-8274	54 mm	46 mm
KL-0043-8275	56 mm	48 mm
KL-0043-8276	58 mm	50 mm
KL-0043-8277	60 mm	52 mm
KL-0043-8278	62 mm	54 mm
KL-0043-8279	64 mm	56 mm
KL-0043-8280	66 mm	58 mm
KL-0043-8281	68 mm	60 mm
KL-0043-8244	10 mm	
KL-0043-8245	12 mm	
KL-0043-8246	14 mm	
KL-0043-8247	16 mm	

Accessories:

Part No.	Outer-Ø	Inner-Ø
KL-0043-8283	72 mm	64 mm

Part No.	Outer-Ø	Inner-Ø
KL-0043-8287	80 mm	70 mm

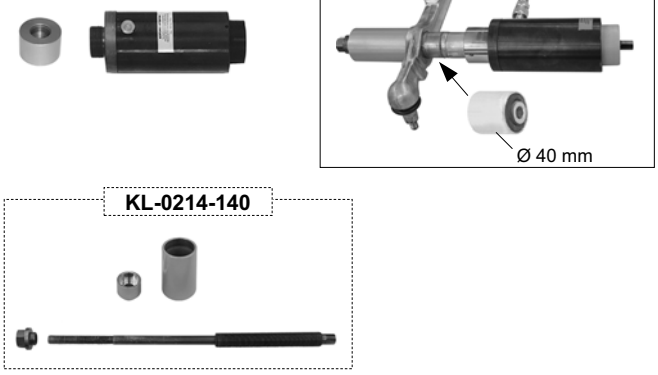
KL-0043-8595 Press Tube Set short (40 mm)

Part No.	Outer-Ø	Inner-Ø
KL-0043-8560	26 mm	18 mm
KL-0043-8561	28 mm	20 mm
KL-0043-8562	30 mm	22 mm
KL-0043-8563	32 mm	24 mm
KL-0043-8564	34 mm	26 mm
KL-0043-8565	36 mm	28 mm
KL-0043-8566	38 mm	30 mm
KL-0043-8567	40 mm	32 mm
KL-0043-8568	42 mm	34 mm
KL-0043-8569	44 mm	36 mm
KL-0043-8570	46 mm	38 mm
KL-0043-8571	48 mm	40 mm
KL-0043-8572	50 mm	42 mm

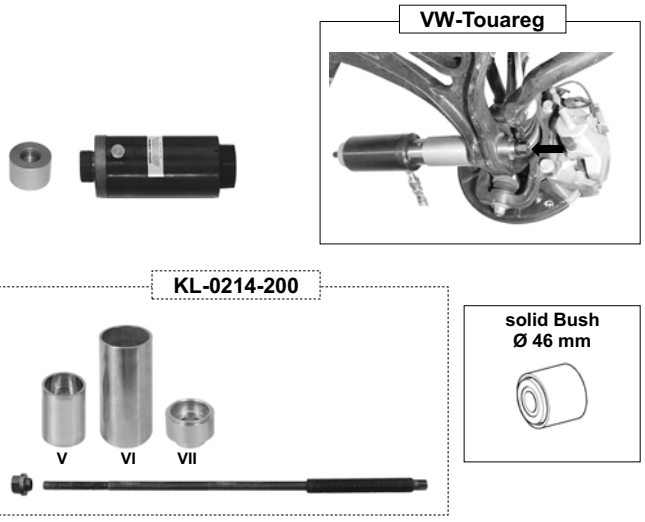
Part No.	Outer-Ø	Inner-Ø
KL-0043-8573	52 mm	44 mm
KL-0043-8574	54 mm	46 mm
KL-0043-8575	56 mm	48 mm
KL-0043-8576	58 mm	50 mm
KL-0043-8577	60 mm	52 mm
KL-0043-8578	62 mm	54 mm
KL-0043-8579	64 mm	56 mm
KL-0043-8580	66 mm	58 mm
KL-0043-8581	68 mm	60 mm
KL-0043-8544	10 mm	
KL-0043-8545	12 mm	
KL-0043-8546	14 mm	
KL-0043-8547	16 mm	

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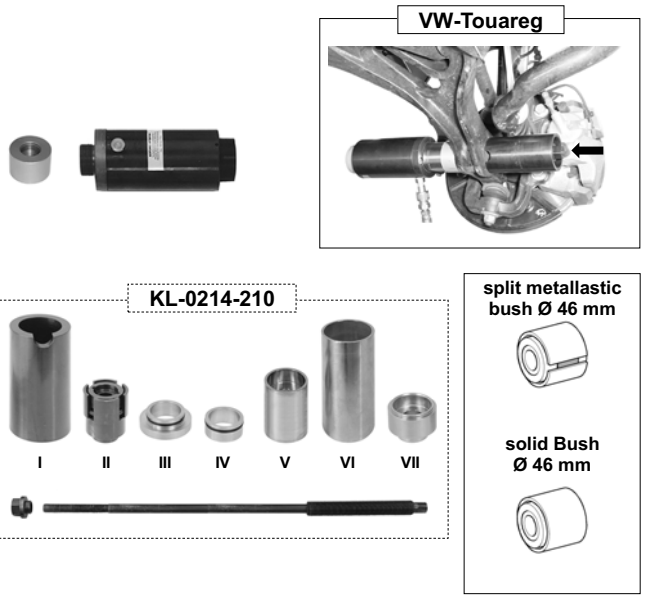
KL-0214-14



KL-0214-20



KL-0214-21



Note: To use the Hydraulic Cylinder **KL-0040-2500** a hydraulic pump is necessary.

KL-0214-14 Bush Extractor with Hydr. Cylinder

Suitable for Audi A4, A6, A8, Skoda Superb and VW Passat suspension strut on the front wishbone.

For the quick and safe removal and installation of the bushing at the suspension strut mounting without removing the wishbone.

KL-0214-140 Bush Extractor without Hydr. Cylinder

As **KL-0214-14.**
If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0043-8567	Press/Support Tube (short)
KL-0043-8272	Press/Support Tube
KL-0040-2543	Puller Spindle M14 with Shoulder Nut

KL-0214-20 Bush Extractor with Hydr. Cylinder

Suitable for VW Touareg suspension strut on the front wishbone (with a solid bush for bore-Ø 46 mm).

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2552	Adaptor M42x2 to Ø 30
KL-0214-200	Bush Extractor without Hydraulic Cylinder

KL-0214-200 Bush Extractor without Hydr. Cylinder

As **KL-0214-20**.
If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0214-2005	Suport Tube short (V)
KL-0214-2006	Suport Tube long (VI)
KL-0214-2007	Press Piece Extraction (VII)
KL-0040-2543-5	Puller Spindle M14
KL-0040-2543-2	Shoulder Nut

KL-0214-21 Bush Extractor with Hydr. Cylinder

Suitable for VW Touareg suspension strut on the front wishbone (with a slotted or closed metallastic bush for bore-Ø 46 mm).

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2552	Adaptor M42x2 to Ø 30
KL-0214-210	Bush Extractor without Hydraulic Cylinder

KL-0214-210 Bush Extractor without Hydr. Cylinder

As **KL-0214-20**.
If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

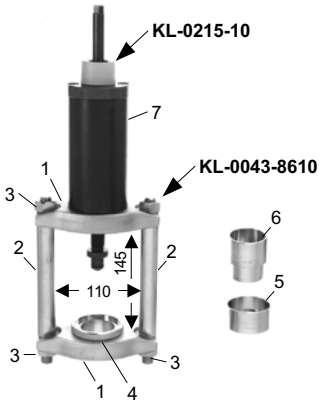
consists of:

Part No.	Description
KL-0214-2001	Conical Tube (I)
KL-0214-2002	Sprung Press Tool (II)
KL-0214-2003	Ring (III)
KL-0214-2004	Ring (IV)
KL-0214-2005	Support Tube short (V)
KL-0214-2006	Support Tube long (VI)
KL-0214-2007	Press Piece Extraction (VII)
KL-0040-2543-5	Puller Spindle M14
KL-0040-2543-2	Shoulder Nut

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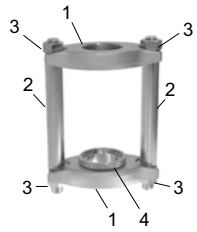
KL-0043-861



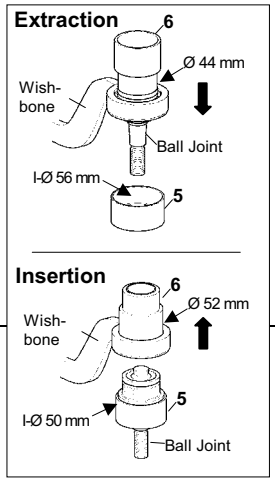


Note: Sleeve Pos.5 and 6 can be used reversible.

KL-0043-8610



Note: An hydraulic pump will be r equired to drive the **KL-0040-2500**.



KL-0043-8611



Note: Conversion items to press frame **KL-0043-8510**

KL-0043-8502-P



KL-0043-8501-A



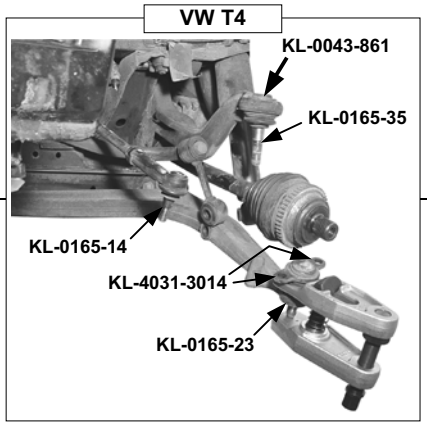
KL-0043-8204



KL-4031-3014







KL-0043-861 Hydraulic Press Tool VW-T4

Suitable for VW T4 front axle upper ball-joint.

The upper ball-joint may be removed and replaced within 30 minutes using the new Press Tool **KL-0043-861**, without the need to dismantle the upper wishbone.

Note: Press the guide-joint pin out of the steering knuckle with the ball-joint Extractor **KL-0165-35**.

Advantages

- Large time savings (2 - 3 hours).
- Simple and precise to use.
- High safety.

Specification:

Pos.	Part No:	Description	Qty.
	KL-0043-861	**Hydraulic Press Tool 17t. VW-T4**	**1**
	consists of:		
	KL-0043-860	Press Tool VW-T4	1
7	KL-0215-10	Hydraulic Cylinder with Spindle	1

	KL-0043-860	**Press Tool VW-T4 (not ill.)**	**1**
	consists of:		
	KL-0043-8610	Press Frame	1
5	KL-0043-8661	Lower Sleeve VW-T4	1
6	KL-0043-8662	Upper Sleeve VW-T4	1

KL-0043-8610 Press Frame

consists of:

Pos.	Part No:	Description	Qty.
1	KL-0043-8501-C	Base Plate 2¼"-14 UNS	2
2	KL-0215-4004	Frame Rods	2
3	KL-0049-3004	Hex Nut M18	4
4	KL-0043-8601	Adaptor 2¼"-14UNS to Ø60mm	1

KL-0043-8611 Supplement Kit VW T4 for KL-0215-4…

The Bush Tool **KL-0215-4... Series** may also be used to replace the upper ball-joint on VW T4 by using the Supplementary Kit **KL-0043-8611**.

consists of:

Pos.	Part No:	Description	Qty.
1	KL-0043-8501-C	Base Plate 2¼"-14 UNS	1
4	KL-0043-8601	Adaptor 2¼"-14UNS to Ø60mm	1
5	KL-0043-8661	Lower Sleeve VW-T4	1
6	KL-0043-8662	Upper Sleeve VW-T4	1

Note: Component parts required to convert the press frame to *KL-0043-8510*

The Press Tool **KL-0043-861** can be converted to press frame **KL-0043-8510,** by using the base plate M42 x 2 **KL-0043-8501-A**, the adaptor from M42x2 to Ø30 **KL-0043-8204** and the pair of frame rods M18 with hex. nuts **KL-0043-8502-P**.

(⇒ KL-0043-8510 see page 4-14)

KL-4031-3014 Special Socket Insert XZN M14

For removal of the upper ball-joint on **VW T4 Transporters.**

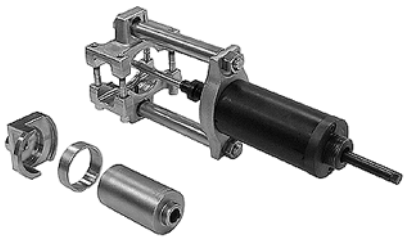
Length:.....55 mm Drive:..... ½"☐ Weight: ..... 110 g

Note: Ball-joint pressing-out tool suitable for the **KL-0165-Series** e.g. **KL-0165-14, KL-0165-23 and KL-0165-35** for easy separation of the ball-joint connections. See chapter 2.

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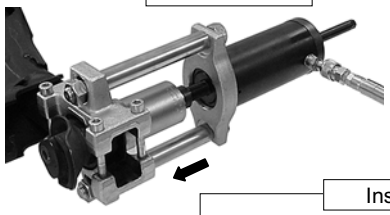
KL-0215-41

VW Golf III

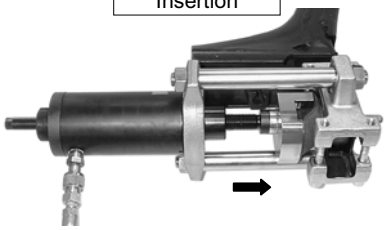




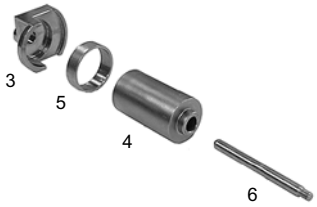
Extraction



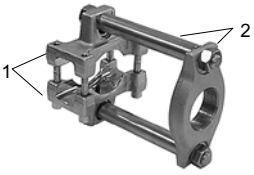
Insertion



KL-0215-410



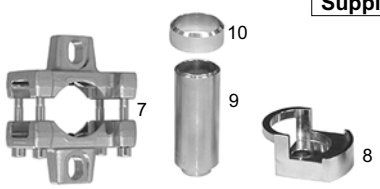
KL-0215-411



VW Golf III

KL-0215-402

Supplement kit VW Golf II



KL-0215-422

Supplement kit VW Polo



Note: Conversion items to press frame **KL-0043-8510**

KL-0043-8502-P



KL-0043-8501-A



KL-0043-8204



KL-0215-41 Press Tool Kit with hydr. Cylinder (German Utility Model)

The Hydraulic Press Tool Kit **KL-0215-41** allows quick, easy and safe extraction and replacement of stubborn rusted or defective Bushes with diameter Ø 56 mm on the rear axle of VW Golf III.

Time savings of up to 3 hours can be achieved.

	Part No.	Description
	KL-0215-41	**Hydraulic Press Tool Kit VW Golf III**
	consists of:	
	KL-0215-410	Press Tool Kit VW Golf III without hydr. cylinder
	KL-0040-2500	Hydraulic Cylinder 17t.
	KL-0040-2510	Press Spindle

KL-0215-410 Press Tool Kit VW Golf III without Hydraulic Cylinder

As **KL-0215-41.**

If Hydraulic Cylinder **KL-0215-10**, consisting of Hydraulik Cylinder **KL-0040-2500** and Spindle **KL-0040-2510**, is already available.

consists of:

Pos.	Part No.	Description
	KL-0215-411	**Frame Golf III**
3	KL-0215-0017	Insertion Tool Golf III
4	KL-0215-0026	Extraction Sleeve Golf III
5	KL-0215-0027	Support Sleeve for extraction Golf III
6	KL-0043-8245	Guide Ø12 mm

	KL-0215-411	Frame Golf III
	consists of:	
1	KL-0215-413	Chuck Jaws Golf III
2	KL-0215-404	Base Frame

Note for VW Passat (35i) and Golf III Variant.

The **KL-0215-41** Puller may be used in conjunction with the **KL-0215-0015** Press Tool to ***insert*** the bushes on the rear axle of VW Passat (35i) and Golf III Estate.

KL-0215-402 Supplement Kit Golf II for Press Tool KL-0215-41

Suitable for VW Golf II.

The Hydraulic Press Tool Kit **KL-0215-41** may also be used for bush diameter Ø 44 mm on VW Golf II by the use of Supplementary Kit **KL-0215-402.**

consists of:

Pos.	Part No.	Description
7	KL-0215-403	Chuck Jaws Golf II
8	KL-0215-0015	Insertion Tool Golf II
9	KL-0215-0028	Extraction Sleeve Golf II
10	KL-0215-0029	Support Tool for extraction Golf II

KL-0215-422 Supplement Kit VW Polo

Hydraulic Press Tool Kit **KL-0215-41** together with the additional set **KL-0215-422** can also be used for the **VW Polo 1995 - 2001 models**.

consists of:

Part-No.	Description
KL-0215-4201	Press Sleeve (insertion)
KL-0043-8274	Press Sleeve (extraction)
KL-0043-8244	Guide 10 mm

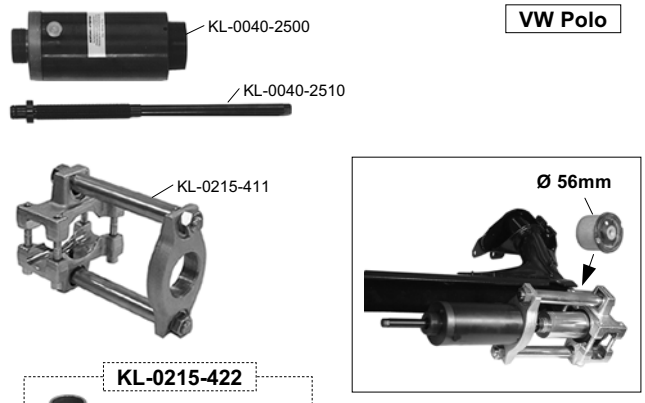
Note: Component parts required to convert the press frame to *KL-0043-8510*

The Press Tool **KL-0043-861** can be converted to press frame **KL-0043-8510,** by using the base plate M42 x 2 **KL-0043-8501-A**, the adaptor from M42x2 to Ø30 **KL-0043-8204** and the pair of frame rods M18 with hex. nuts **KL-0043-8502-P**.

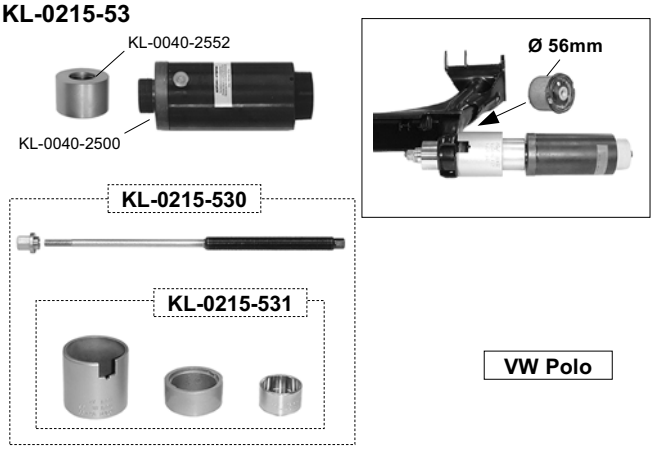
(⇒ KL-0043-8510 see page 4-14)

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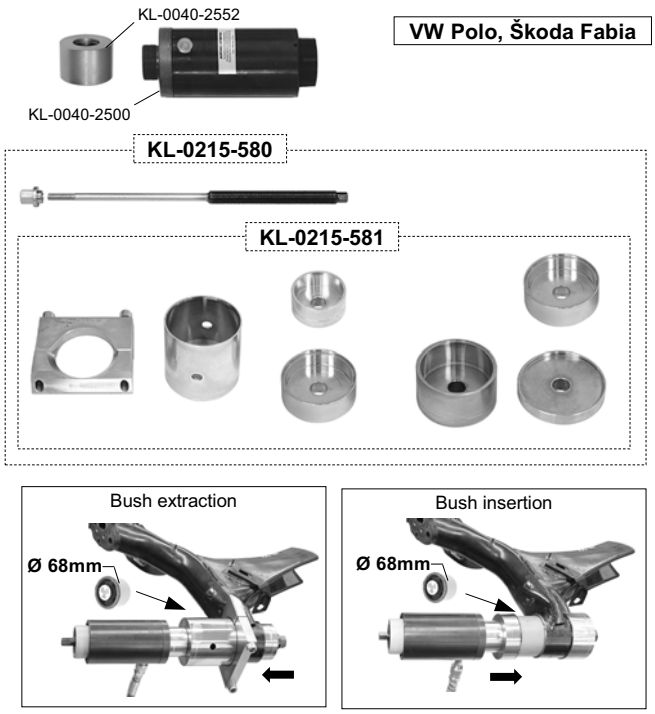
KL-0215-42



KL-0215-53



KL-0215-58



Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0215-42 Hydraulic Press Tool Kit
(German Utility Model)

Suitable for VW Polo 1995 - 1999 rear axle.
The Hydraulic Press Tool Kit **KL-0215-42** allows quick, easy and safe extraction and replacement of rear axle Bushes. Even severely corroded and stubborn bushes may be replaced within a few minutes.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2510	Spindles	1
KL-0215-411	Press Frame	1
KL-0215-422	**Sleeve Set VW Polo**	**1**

KL-0215-422 Sleeve Set VW Polo

consists of:

Part No.	Description	Qty.
KL-0043-8274	Press-/Support Sleeve 54 mm	1
KL-0215-4201	Insertion Sleeve	1
KL-0043-8244	Guide Ø10 mm	1

KL-0215-53 Bush Extractor with Hydr. Cylinder

Suitable for VW Polo 1995 - 1999 rear axle
For removal and replacement of bushes on the rear axle.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-530	**Bush Extractor without Hydr. Cylinder and without Adaptor**	**1**

KL-0215-530 Bush Extractor without Hydr. Cylinder

consists of:

Part No.	Description	Qty.
KL-0040-2541	Puller Spindle M10x1,25 with Nut	1
KL-0215-531	Sleeve Set	1

KL-0215-531 Sleeve Set

consists of:

Part No.	Description	Qty.
KL-0215-4201	Insertion Sleeve	1
KL-0043-8574	Press-/Support Sleeve short 54/46	1
KL-0215-5001	Support Sleeve	1

KL-0215-58 Bush Extractor with Hydr. Cylinder

Suitable for VW Polo '02 onwards, Polo Classic '04 onwards; Škoda Fabia '00 onwards; Seat Ibiza '02 onwards and Seat Cordoba '03 onwards.
KL-0215-58 allows quick, easy, clean and safe removal and replacement of bushes on the rear axle.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-580	**Bush Extractor without Hydr. Cylinder and without Adaptor**	**1**

KL-0215-580 Bush Exstractor (without Hydr.-Cylinder)

consists of:

Part No.	Description	Qty.
KL-0040-2542	Puller Spindle M12 with Nut	1
KL-0215-581	**Sleeve Set**	**1**

KL-0215-581 Sleeve Set

consists of:

Part No.	Description	Qty.
KL-0215-5201	Support Tube	1
KL-0215-5802	Chuck Jaws with bolts	1
KL-0215-5803	Press Piece Extraction	1
KL-0215-5804	Press Piece Extraction	1
KL-0215-5805	Support Tube Insertion	1
KL-0215-5806	Press Piece Insertion	1
KL-0215-5205	Press Piece Insertion	1

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KL-0215-52 A



Audi A3, VW Golf IV

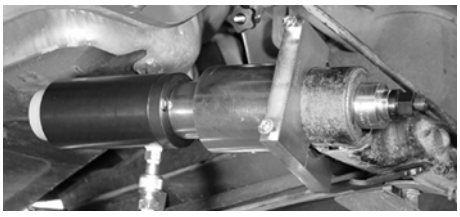


Rubber-to-plastic bushing Ø 72mm

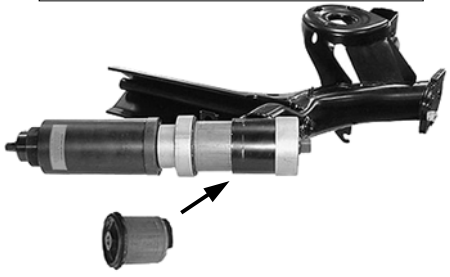
Rubber-to-metal silentbloc-type bushing Ø 69mm



Extraction rubber-to-metal



Insertion rubber-to-plastic bushing



Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0215-52 A Bush Extractor Audi A3, VW Golf IV RA with Hydraulic Cylinder

Suitable for Audi A3; VW Bora, Beetle, Golf IV; Seat Leon, Toledo '01 onwards and Škoda Oktavia '97 onwards rear axle.

For quick, easy removal of the rubber-to-metal silentbloc-type bushing **(KL-0215-522** with **KL-0040-2500** and **KL-0040-2552)**, and for removing and installing the rubber-to-plastic bushing **(KL-0215-520** with **KL-0040-2500** and **KL-0040-2552)** at the rear axle.

Contents:

Part No.	Description	Qty.
KL-0215-52 A	**Bush Extractor Audi A3, VW Golf IV rear axle with Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17t	1
KL-0215-520 A	**Bush Extractor Audi A3, VW Golf IV rear axle without Hydraulic Cylinder**	**1**

KL-0215-520 A Bush Extractor without Hydraulic Cylinder

As **KL-0215-52 A** if Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

Contents:

Part No.	Description	Qty.
KL-0215-520 A	Bush Extractor Audi A3, VW Golf IV rear axle without Hydr. Cylinder	**1**
consists of:		
KL-0215-2552	Adaptor M42X2 to Ø30	1
KL-0215-520	**Bush Extractor without Hydraulic Cylinder (for rubber-to-plastic bushing)**	**1**
KL-0215-522	**Supplement Kit (for rubber-to-metal silentbloc-type bushing)**	**1**

KL-0215-520 Bush Extractor without Hydraulic Cylinder

(only rubber-to-plastic bushings)

Contents:

Part No.	Description	Qty.
KL-0215-520	**Bush Extractor without Hydraulic Cylinder**	**1**
consists of:		
KL-0215-5201	Support Sleeve	1
KL-0215-5202	Chuck Jaws with bolts	1
KL-0215-5203	Press Sleeve (extraction)	1
KL-0215-5204	Support Sleeve (insertion)	1
KL-0215-5205	Press Sleeve (insertion)	1
KL-0040-2542	Puller Spindle M12 with Nut	1

KL-0215-522 Supplement Kit for rubber-to-metal silentbloc without Hydraulic Cylinder

Contents:

Part No.	Description	Qty.
KL-0215-522	**Supplement Kit for rubber-to-plastic bushing without Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2512	Puller Spindle	1
KL-0040-3009	Nut	1
KL-0215-523	**Press/Support Sleeve Set**	**1**

KL-0215-523 Press/Support Sleeve Set

Contents:

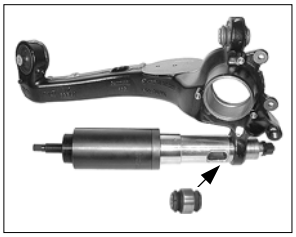
Part No.	Description	Qty.
KL-0215-523	**Press/Support Sleeves**	**1**
consists of:		
KL-0215-5222	Support Sleeve (extraction)	1
KL-0215-5221	Press Sleeve (extraction)	1
KL-0043-8569	Press/Support Sleeve short 44/36	1

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KL-0215-54

VW Golf 4-Motion

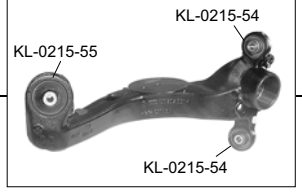




KL-0215-540



Rear Trailing Arm
required Tools

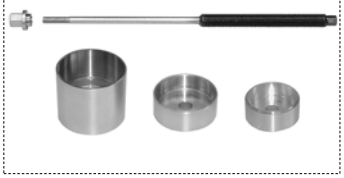


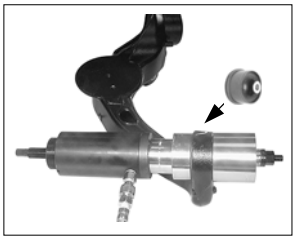
KL-0215-55



VW Golf 4-Motion

KL-0215-550





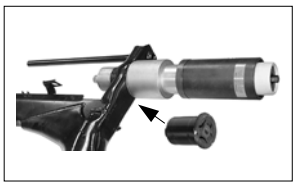
KL-0215-50

Audi



KL-0215-500





Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the hydraulic cylinder **KL-0040-2500** on the vehicle.

KL-0215-54 Bush Extractor
with Hydraulic Cylinder

Suitable for VW Golf 4-Motion Rear Trailing Arm.

The Bush Extractor **KL-0215-54** allows quick, clean and safe removal and replacement of the upper and lower bushes in the rear trailing arm.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2550	Adaptor M42x2 to Ø 30	1
KL-0215-540	**Bush Extraxtor without Hydr. Cylinder**	**1**

KL-0215-540 Bush Extractor
without Hydraulic Cylinder

consists of:

Part No.	Description	Qty.
KL-0215-5401	Support Sleeve	1
KL-0215-5402	Press Sleeve	1
KL-0040-2542	Puller Spindle M12 with Nut	1

KL-0215-55 Bush Extractor
with Hydraulic Cylinder

Suitable for VW Golf 4-Motion Rear Trailing Arm.

The Bush Extractor **KL-0215-55** allows quick, clean and safe removal and replacement of the Metallastic Bushes in the rear trailing arm.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-550	**Bush Extraxtor without Hydr. Cylinder**	**1**

KL-0215-550 Bush Extractor
without Hydraulic Cylinder

consists of:

Part No.	Description	Qty.
KL-0215-5501	Support Sleeve	1
KL-0215-5502	Press Sleeve (insertion)	1
KL-0215-5503	Press Sleeve (extraction)	1
KL-0040-2542	Puller Spindle M12 with Nut	1

KL-0215-50 Bush Extractor
with Hydraulic Cylinder

Suitable for Audi 80 (B4) 1991 - 1996 Rear Axle.

The Bush Extractor **KL-0215-50** allows quick, easy, clean and safe removal and replacement of bushes on the rear axle.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-500	**Bush Extractor without Hydr. Cylinder**	**1**

KL-0215-500 Bush Extractor
without Hydraulic Cylinder

consists of:

Part No.	Description	Qty.
KL-0215-5001	Support Sleeve	1
KL-0215-5002	Press Support (extraction)	1
KL-0215-5003	Press Support (insertion)	1
KL-0040-2542	Puller Spindle M12 with Nut	1

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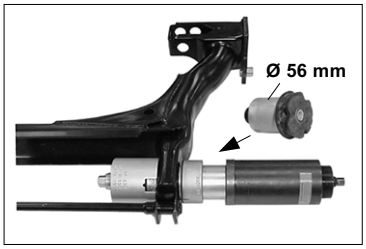
KL-0215-51



Audi A4

KL-0215-510



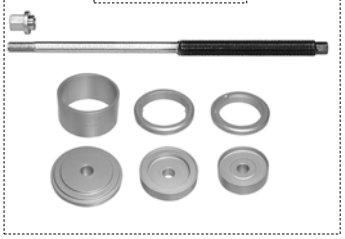


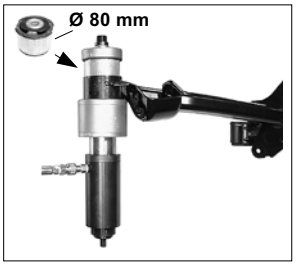
KL-0215-56

Audi A4,
A4 Quattro

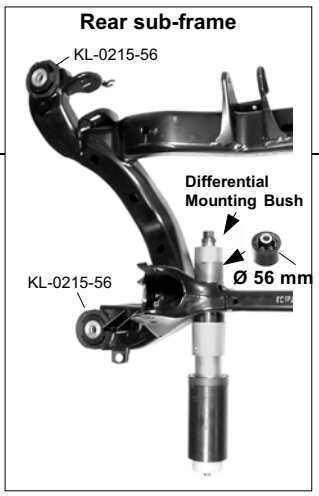


KL-0215-560





Rear sub-frame



KL-0215-57



KL-0215-570



A4 Quattro

Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0215-51 Bush Extractor
with Hydraulic Cylinder

Suitable for Audi A4 from `96 - ´01 Rear Axle.

For removal and replacement of bushes on the rear axle.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-510	**Bush Extractor without Hydr. Cylinder and Adaptor**	**1**

KL-0215-510 Bush Extractor
without Hydraulic Cylinder

consists of:

Part No.	Description	Qty.
KL-0215-5001	Support Sleeve	1
KL-0215-5002	Press Sleeve (extraction)	1
KL-0215-5103	Press Sleeve (insertion)	1
KL-0040-2542	Puller Spindle M12 with Nut	1

KL-0215-56 Bush Extractor
with Hydraulic Cylinder

For Audi A4 and A4 Quattro 2001-onwards rear sub-frame.

Allows quick and easy replacement of Bushes in the rear sub-frame without the need to remove the sub-frame from the vehicle.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0215-560	**Bush Extractor without Hydr. Cylinder and Adaptor**	**1**

KL-0215-560 Bush Extractor
without Hydraulic Cylinder

consists of:

Part No.	Description	Qty.
KL-0215-5601	Housing Cover	1
KL-0215-5602	Housing	1
KL-0215-5603	Support Ring - removal	1
KL-0215-5604	Press Tool - removal	1
KL-0215-5605	Support Ring - replacement	1
KL-0215-5606	Press Tool - replacement	1
KL-0040-2543	Puller Spindle M14 with Nut	1

KL-0215-57 Bush Extractor
with Hydraulic Cylinder

For Audi A4 Quattro 2001-onwards Differential Mounting Bush.

To replace the Differential Mounting Bush in the rear sub-frame

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0215-570	**Bush Extraxtor without Hydr. Cylinder**	**1**

KL-0215-570 Bush Extractor
without Hydraulic Cylinder

consists of:

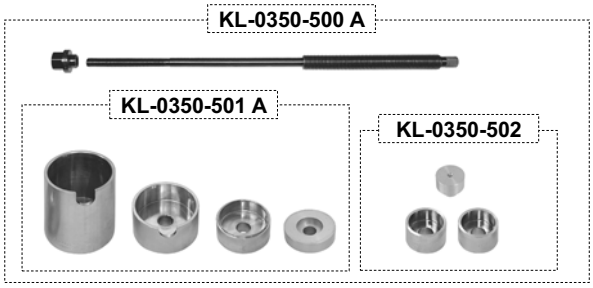
Part No.	Description	Qty.
KL-0215-5701	Support Sleeve	1
KL-0215-5702	Press Sleeve	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0040-2542	Puller Spindle M12 with Nut	1

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KL-0350-50 A

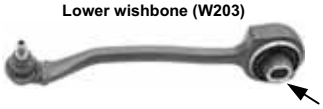
Mercedes W203/ W211/W220





Wishbone / Thrust rod:

Lower wishbone (W203)



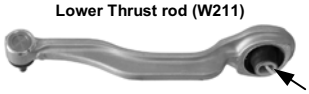
Lower Thrust rod (W203)



Lower wishbone (W211)



Lower Thrust rod (W211)

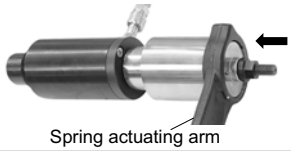


Lower wishbone (W220)

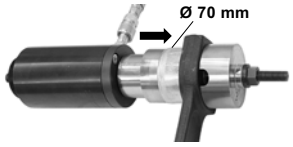


Examples of application

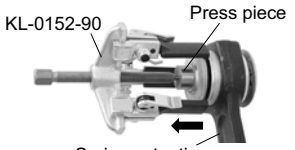
Bush extraction



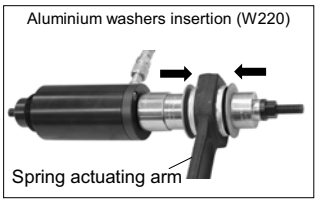
Bush insertion



Aluminium washers extraction (W220)

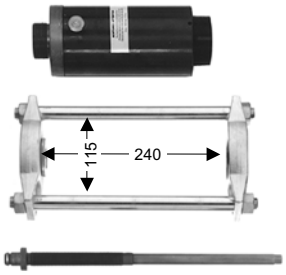


Aluminium washers insertion (W220)

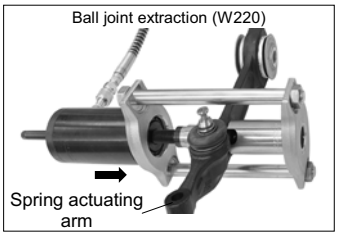


KL-0350-51

Mercedes W220/W211



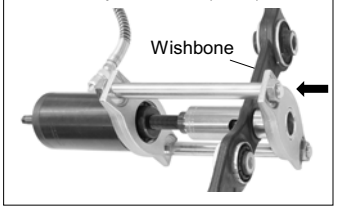
Ball joint extraction (W220)



KL-0350-510



Ball joint insertion (W211)



KL-0350-50 A Bush Extractor with Hydraulic Cylinder

Suitable for Mercedes W203 (C-Klasse), W211 (E-Klasse) and W220 (S-Klasse) front axle.

For quick, safe removal and installation of the silentbloc-type bushings in the suspension wishbone (W203 - C Class and W211 - E Class) and in the leading link and suspension arm (W220 - s Class).

KL-0350-50 A Bush Extractor with hydr. cyl. *consists of:*

Part No.	Description	Qty.
KL-0040-2500	Hydraulic-Cylinder 17 t. (without coupling)	1
KL-0040-2552	Adaptor M42x2 auf Ø 30	1
KL-0350-500 A	**Bush Extractor without Hydr. Cylinder**	**1**

KL-0350-500 A Bush Extractor without Hydraulic Cylinder

As **KL-0350-50 A**, if Hydraulic Cylinder **KL-0040-2500** and the adaptor **KL-0040-2552** are already available. *consists of:*

Part No.	Description	Qty.
KL-0040-2543-1	Pull spindle M14	1
KL-0040-2543-2	Nut M14	1
KL-0350-501 A	**Sleeve set (Silentbloc)**	**1**
KL-0350-502	**Sleeve set (Aluminium washers)**	**1**

KL-0350-501 A Sleeve Set (Silentbloc)

Press and support sleeve set to remove or install the silentbloc-type bushing in conjunction with the above listet parts (not fat marked). *consists of:*

Part No.	Description	Qty.
KL-0350-5001	Support Sleeve (extraction)	1
KL-0350-5002	Support Sleeve (insertion)	1
KL-0215-5503	Press Piece	1
KL-0350-5004	Press Piece	1

KL-0350-502 Sleeve Set (Aluminium washers)

Necessary to remove or install the aluminium washers on the spring actuating (W220) see ill. Examples of application. *consists of:*

Part No.	Description	Qty.
KL-0043-8572	Press Sleeve	2
KL-0350-5003	Press Piece	1

Note:

- The **KL-0350-50 A** puller is based on the **KL-0350-50** puller together with the **KL-0350-5004** thrust block. The application area has now been extended to include the lower front wishbones and front-axle leading links on the **Mercedes W203** (C Class).
- To remove and install the silentbloc-type bushing on the leading link or spring arm of the **Mercedes W211** (E Class), the **KL-0350-501 A** set of sleeves together with the hydraulic cylinder **KL-0040-2500**, the adapter **KL-0040-2552** and the puller spindle **KL-0040-2543** are needed.

Accessories:

KL-0152-90 K Puller Set Twin- / Triple-Arm with fast-clamp lever (not Ill.)

To pull off discs, wheels or ball bearings.

The two- or three-arm puller with rapid clamping hook from the set of pullers can be used either as an internal or external puller if the hooks are repositioned.

Note: Further Informations to **KL-0152-90 K** see Page 8-05.

KL-0350-51 Press Tool with Hydraulic Cylinder

Suitable for Mercedes W220 (S-Class) and W211 (E-Class) Front Axle.

The ball joint in the spring actuating arm (W211 - E Class) or in the wishbone (W220 - S Class) can be removed and installed quickly and safely using pressing-out tool **KL-0350-51**. The suspension components do not have to be removed from the vehicle. *consists of:*

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t. (without coupling)	1
KL-0040-2510	Pressure Spindle	1
KL-0043-8510	Press Frame	1
KL-0350-510	**Press Tool without Hydraulic cylinder**	1

KL-0350-510 Press Tool without Hydraulic Cylinder *consists of:*

Part No.	Description	Qty.
KL-0350-5101	Support Sleeve (extraction)	1
KL-0350-5102	Press Piece	1
KL-0043-8567	Support Sleeve (insertion)	1

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KL-0350



Mercedes W124, W201



KL-0350-1



KL-0350-100



Mercedes W202



KL-0350-2



KL-0350-200



Mercedes W210



KL-0351-1

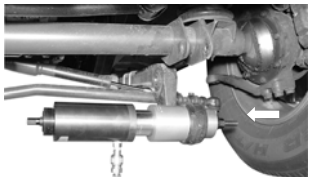


Mercedes G-Model

KL-0351-100



Bush extraction (front axle)



Bush extraction (rear axle)



KL-0350 Insertion Tool for Rubber Bush

Suitable for Mercedes W124 and W201 Front Axle.

To insert the front and rear torsion rubber bushes on the front wishbone.
This tool allows the replacement of the torsion bushes without the need to dismantle the wishbone.
The automatic flaring of the aluminium sleeve occurs only when the correct compression of the bush has been achieved.

Time savings approx. 1 hour.

KL-0350-1 Bush Extractor with Hydraulic Cylinder

Suitable for Mercedes W202 (C-Class) and W170 (SLK) Front Axle.

The **KL-0350-1** allows both the split front bush as well as the solid rear bush to be quickly, easily and safely replaced on the front lower wishbone. Removal of the wishbone from the car is *not* necessary.
The Hydraulic Cylinder **KL-0040-2500** used with the appropriate adaptors makes light work of stubborn, corroded bushes.

KL-0350-100 Bush Extractor without Hydraulic Cylinder

As **KL-0350-1.**
If Hydraulic Cylinder **KL-0040-2500** is already available.

KL-0350-2 Bush Extractor with Hydraulic Cylinder

Suitable for Mercedes W210 (E-Class) front axle.

For quick, easy and safe replacement of the both the divided front bush and also the solid compact rear bush in the front lower wishbone. Removal of the wishbone from the car is *not* necessary.

KL-0350-200 Bush Extractor without Hydraulic Cylinder

As **KL-0350-2**.
If Hydraulic Cylinder **KL-0040-2500** is already available.

KL-0351-1 Bush Extractor with Hydraulic Cylinder

For use on Mercedes G-Class front- and rear-axle locating links with 65 mm or 70 mm diameter silentbloc-type bushings.

The silentbloc-type bushings in the front- and rear-axle locating links can be extracted or inserted quickly and safely with the **KL-0351-1** puller. The locating link does not have to be removed.

KL-0351-1 *consists of:*

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (without coupling)
KL-0040-2552	Adaptor
KL-0351-100	**Bush Extractor without Hydr. Cylinder**

KL-0351-100 Bush Extractor without Hydraulic Cylinder

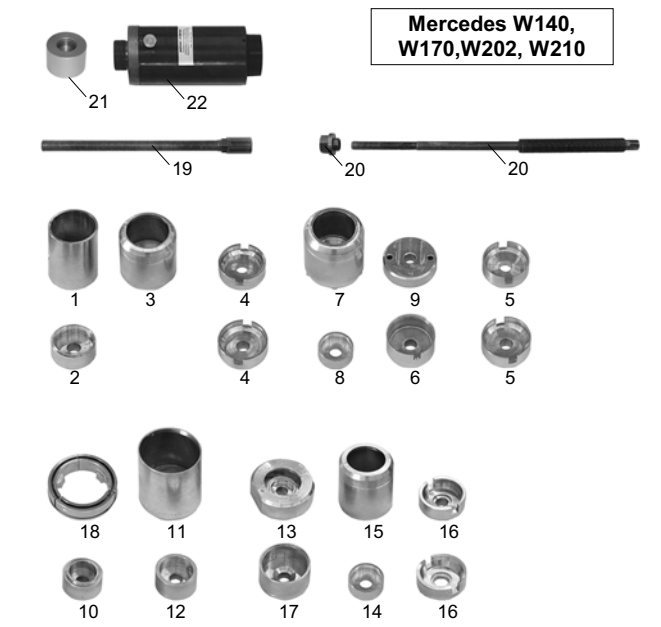
consists of:

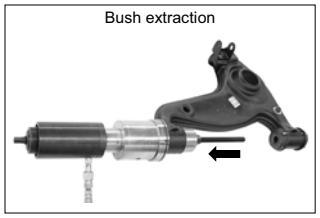
Part No.	Description
KL-0351-1001	Press Sleeve short 65/58 rear axle
KL-0351-1002	Support Sleeve 80 mm
KL-0351-1003	Press/Support Sleeve 70 mm front axle
KL-0040-2544	Puller Spindle M16 with Nut

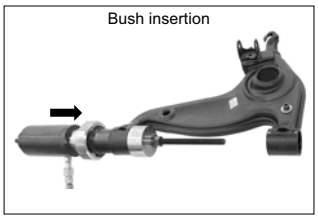
Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the hydraulic cylinder **KL-0040-2500** on the vehicle.

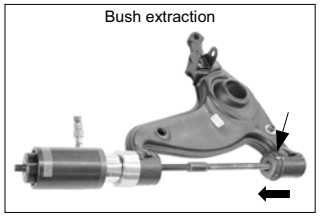
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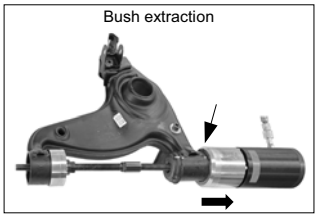
KL-0350-40











KL-0350-40 Bush Extractor
with Hydraulic Cylinder
(German Utility Model)

Suitable for Mercedes **W140 (S-Class), W170 (SLK), W202 (C-Class) and W210 (E-Class) front axle wishbone.**

At last a hydraulic tool set has been introduced for quick, simple and safe removal and installation of the silentbloc-type bushings in the front-axle wishbones of **Mercedes W140, W170, W202 and W210** models.

Hydraulic drive, using Hydraulic Cylinder **KL-0040-2500**, means that even very firmly seated or rusted-in bushings can be removed and inserted without difficulty.

KL-0350-40 Bush Extractor with Hydraulik Cylinder
Suitable for Mercedes **W140 (S-Class), W170 (SLK), W202 (C-Class) and W210 (E-Class).**

KL-0350-400 Bush Extractor without Hydraulik Cylinder
As **KL-0350-40,** if Hydraulic Drive (see specification table) is already available

KL-0350-41 Bush Extractor with Hydraulik Cylinder
Suitable for Mercedes **W140 (S-Class).**

KL-0350-410 Sleeve Set
As **KL-0350-41,** if Hydraulic Drive (see specification table) is already available

KL-0350-42 Bush Extractor with Hydraulik Cylinder
Suitable for Mercedes **W210 (E-Class).**

KL-0350-420 Sleeve Set
As **KL-0350-42,** if Hydraulic Drive (see specification table) is already available

KL-0350-43 Bush Extractor with Hydraulik Cylinder
Suitable for Mercedes **W170 (SLK) and W202 (C-Class).**

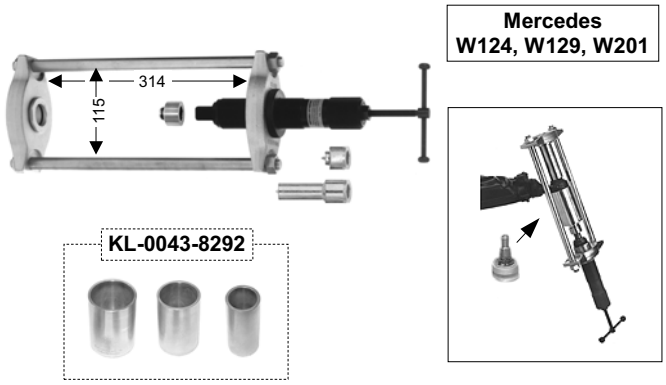
KL-0350-430 Sleeve Set
As **KL-0350-43,** if Hydraulic Drive (see specification table) is already available

Specification:

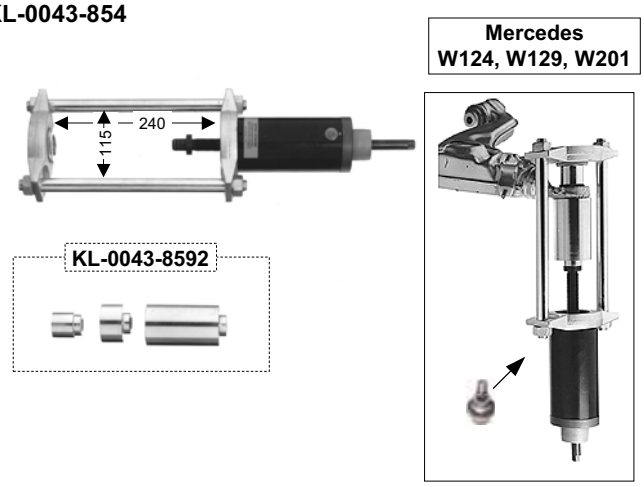
Pos.	Part No.	Description	Part No.	KL-0350-40 (W140, W170, W202, W210)	KL-0350-400 (W140, W170, W202, W210)	KL-0350-41 (W140)	KL-0350-410 (W140)	KL-0350-42 (W210)	KL-0350-420 (W210)	KL-0350-43 (W202, W170)	KL-0350-430 (W202, W170)
1	KL-0350-4001	Support Sleeve		●	●					●	●
2	KL-0350-4002	Press Piece		●	●					●	●
3	KL-0350-4003	Puller dome		●	●					●	●
4	KL-0350-4004	Press Piece		●	●					●	●
5	KL-0350-4005	Press Piece		●	●			●	●	●	●
6	KL-0350-4006	Support Sleeve		●	●			●	●	●	●
7	KL-0350-4007	Puller dome		●	●			●	●	●	●
8	KL-0350-4008	Press Piece		●	●			●	●	●	●
9	KL-0350-4009	Press Piece		●	●			●	●		
10	KL-0350-4010	Press Piece		●	●			●	●		
11	KL-0350-4011	Support Sleeve		●	●	●	●	●	●		
12	KL-0350-4012	Press Piece		●	●	●	●				
13	KL-0350-4013	Puller dome		●	●	●	●				
14	KL-0350-4014	Press Piece		●	●	●	●				
15	KL-0350-4015	Puller dome		●	●	●	●				
16	KL-0350-4016	Press Piece		●	●	●	●				
17	KL-0350-3006	Support Sleeve		●	●	●	●				
18	KL-0350-2002	Supporting segment Set (3 Pcs.)		●	●	●	●	●	●		
19	KL-0040-2543-3	Spindle extension M14		●	●	●		●		●	
20	KL-0040-2543	Puller Spindle M14 with Shoulder Nut		●	●	●		●		●	
21	KL-0040-2552	Adaptor M42x2 to Ø30		●		●		●		●	
22	KL-0040-2500	Hydraulic Cylinder		●		●		●		●	

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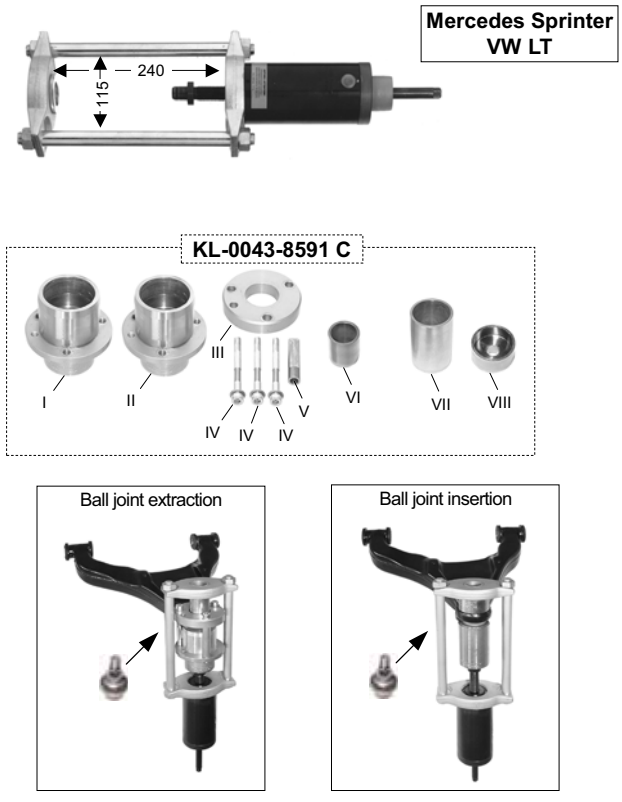
KL-0043-822



KL-0043-854



KL-0043-855 C



Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0043-822 Press Tool with Hydraulic Spindle

Suitable for Mercedes W124, W129 and W201 Front Axle.

To renew suspension joints on the vehicle without dismantling the wishbone.

consists of:

Part No.	Description
KL-0045-70	Hydraulic Spindle 12 t
KL-0043-8200	Press Frame long

Part No.	Description
KL-0043-8292	Press/Support Tube Set

KL-0043-8292 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8265	Press/Support Tube
KL-0043-8275	Press/Support Tube

Part No.	Description
KL-0043-8277	Press / Support Tube

KL-0043-854 Press Tool with Hydraulic Cylinder

Suitable for Mercedes W124, W129 and W201 Front Axle.

To renew suspension joints on the vehicle without dismantling the wishbone.

As **KL-0043-852** but with Hydraulic Cylinder **KL-0215-10** (17 t) instead of Hydraulic Spindle **KL-0045-70**.

consists of:

Part No.	Description
KL-0215-10	Hydraulc Cylinder 17 t
KL-0043-8510	Press Frame short

Part No.	Description
KL-0043-8592	Press/Support Tube

KL-0043-8592 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8565	Press/Support Tube
KL-0043-8575	Press/Support Tube

Part No.	Description
KL-0043-8277	Press/Support Tube

KL-0043-855 C Press Tool
with Hydraulic Cylinder (Patented)

Suitable for Mercedes Sprinter '95 onwards and VW LT '96 onwards.

To remove and insert ball joints with the special manufactured press and support sleeves within a few minutes on the vehicle.

Advantages:

- High time savings
- Easy to operate.
- Tool cannot tilt to one side.
- Avoid mischances.
- Hydraulic Cylinder 17 to. **KL-0040-2500** is all-purpose also with other KLANN-tools useable.

Specification:

Part No.	Description	Qty.
KL-0043-855 C	**Press Tool with Hydraulic Cylinder**	**1**
consists of:		
KL-0043-8510	Press frame short	1
KL-0040-2500	Hydraulic cylinder 17t. (without coupling)	1
KL-0040-2510	Press spindle	1
KL-0043-8591 C	**Press/ support sleeve set**	**1**

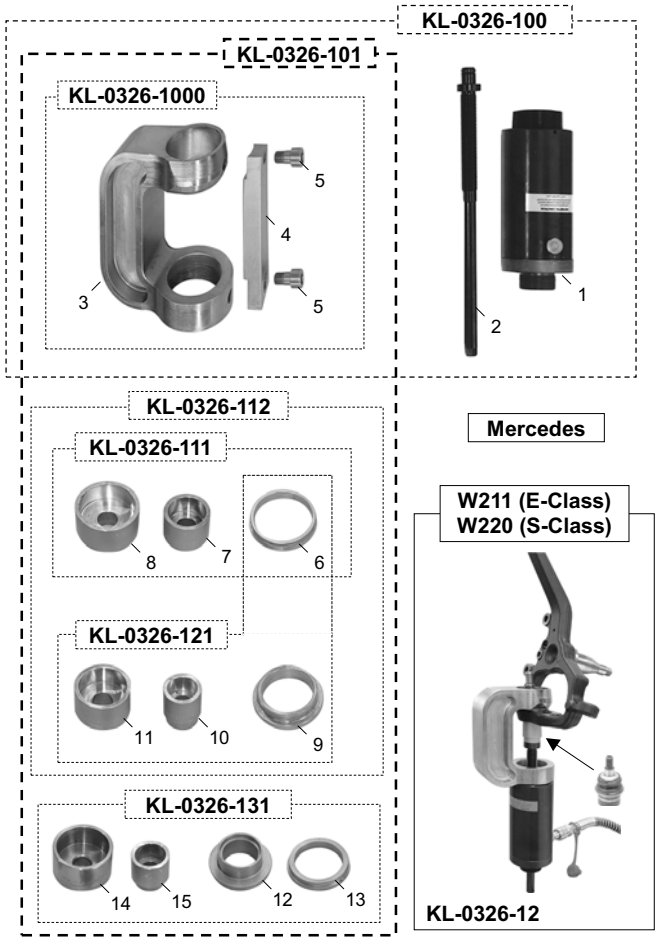
Part No.	Description	Qty.
KL-0043-8591 C	**Press/ support sleeve set**	**1**
consists of:		
KL-0043-8236-1	Support sleeve (I)	1
KL-0043-8236-2	Support sleeve (II)	1
KL-0043-8236-3	Clamping plates (III)	1
KL-0043-8236-4	Cylinder screw (IV)	3
KL-0043-8236-5	Distance tube (V)	1
KL-0043-8531	Press sleeve (VI)	1
KL-0043-8279	Press sleeve (VII)	1
KL-0043-8578	Press/support sleeve (VIII)	1

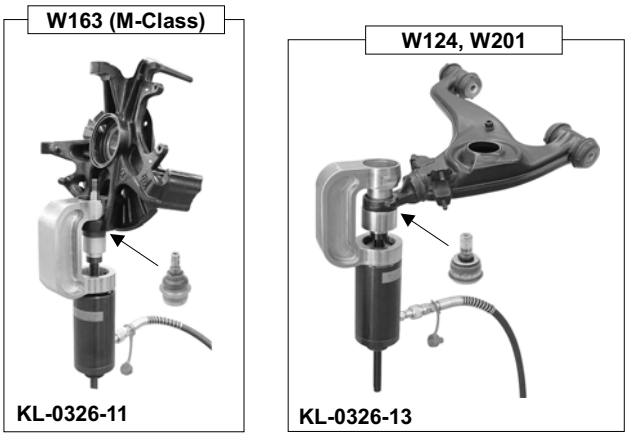
Note: Further press tool sets with Hydraulic Cylinder **KL-0040-2500** e.g. for HGV`s see chapter 11.

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4

KL-0326-10





Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0326-20



KL-0326-10 Press Tool with Hydr. Cyl. (German Utility Model)

Suitable for Mercedes W163 (M-Class) Front Axle / Rear Axle and W211 (E-Class), W220 (S-Class), W124, W201 Front Axle.

The support joint can be pressed into and out of the lower wishbone quickly and easily with the **KL-0326-10** hydraulic press tool kit. The support joint can often be removed or installed from the vehicle in only a few minutes, without removing the wishbone.

Specification:

Pos.	Part-No.	Description	Qty.
	KL-0326-10	**Press Tool with Hydr. Cyl. 17t.**	**1**
	consists of:		
	KL-0326-100	Hydraulic Press Frame	1
	KL-0326-112	Sleeve Set W163, W211, W220	1
	KL-0326-131	Sleeve Set W124, W201	1
	KL-0326-100	**Hydraulic Press Frame**	
	consists of:		
1	KL-0040-2500	Hydraulic Cylinder 17 t.	
2	KL-0040-2510	Press Spindle	
	KL-0326-1000	Press Frame (without Drive and Sleeves)	
	KL-0326-1000	**Press Frame** (without Drive and Sleeves)	**1**
	consists of:		
3	KL-0326-1001	Press Frame	1
4	KL-0326-1002	screwable selvedge	1
5	KL-0326-1003	fillister head screw M12x20	2
	KL-0326-112	**Sleeve Set W163, W211, W220**	**1**
	consists of:		
6	KL-0326-1111	Support Ring 1	1
7	KL-0043-8568	Press/Support sleeve short 42/34	1
8	KL-0043-8576	Press/Support sleeve short 58/50	1
9	KL-0326-1211	Support Ring 2	1
10	KL-0043-8564	Press/Support sleeve short 34/26	1
11	KL-0043-8572	Press/Support sleeve short 50/42	1
	KL-0326-131	**Sleeve Set W124, W201 (Front Axle)**	**1**
	consists of:		
12	KL-0326-1311	Press Ring	1
13	KL-0326-1312	Support Ring	1
14	KL-0326-1313	Support Ring	1
15	KL-0043-8566	Press- / Support Sleeve short 38/30	1

KL-0326-101 Hydraulic-Press Tool Kit without Drive

As **KL-0326-10** but without the Hydraulic Cylinder **KL-0040-2500** and the Spindle **KL-0040-2510**.

KL-0326-11 Press Tool with Hydr. Cyl. (not ill.)

As **KL-0326-10,** but specially for **W163 (M-Class).**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-111	Sleeve Set W163	1

KL-0326-12 Press Tool with Hydr. Cyl. (not ill.)

As **KL-0326-10,** but specially for **W211 (E-Class), W220 (S-Class).**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-121	Sleeve Set W211, W220	1

KL-0326-13 Press Tool with Hydr. Cyl. (not ill.)

As **KL-0326-10,** but specially for **W124, W201.**

consists of:

Part-No.	Description	Qty.
KL-0326-100	Hydraulic Press Frame	1
KL-0326-131	Sleeve Set W124, W201	1

KL-0326-20 Toothed Socket

For tightening the support joint retaining nut on the **Mercedes W163 (M-Class)** steering knuckle.

Technical Data

Diameter - outer: .....63,0 mm
Tooth Width: .....7,5 mm
Diameter - inner: .....52,5 mm
Weight: .....0,50 kg

Note:
Ball joint puller to separate ball joint connections see page 2-18 till 2-28.

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KL-0356-4



Mercedes



KL-0356-4 Bush Extractor for Rubber Bushes

To replace the bushes on the front sub-frame **Mercedes W140** Models. The work can be carried without dropping the front sub-frame.

KL-0355-1



Mercedes



KL-0355-1 Bush Extractor

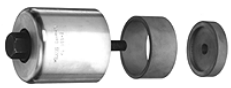
Suitable for Mercedes W124 rear sub-frame.

For removal and replacement of the rear sub-frame bushes (Differential Mountings).

Advantage:

Bushes may be replaced without removal of the Differential.

KL-0355-2



KL-0355-2 Bush Extractor

Suitable for Mercedes W140 rear sub-frame.

Bush Tool for removal and replacement of the rear sub-frame bushes (Differential Mountings).

KL-0356-1



Mercedes



KL-0356-1 Bush Extractor for Rubber Bushes

Suitable for Mercedes W124 und W201.

For removal and replacement of both front and rear mounting bushes of the rear sub-frame.

Advantage:

The bushes may be replaced on the car without the need to lower the rear sub-frame.

KL-0356-5

Mercedes



KL-0356-5 Bush Extractor for Rubber Bushes

To replace the **front** bush on the **rear** sub-frame on **Mercedes W140** Models.

KL-0356-6

Mercedes



KL-0356-6 Bush Extractor for Rubber Bushes

To replace the **rear** bush on the **rear** sub-frame on **Mercedes W140** Models.

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KL-0356-11



Mercedes W202

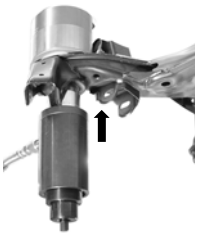
KL-0356-110



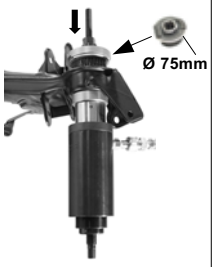
KL-0356-111



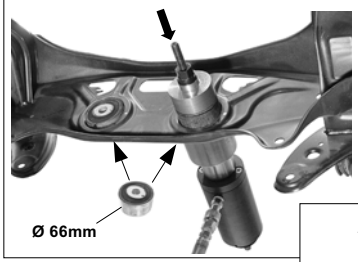
Bush extraction



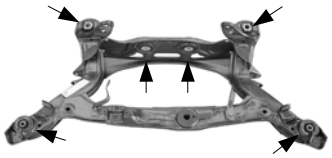
Bush replacement



Differential-Bush extraction



Mercedes rear sub-frame W202



KL-0356-12



Mercedes W210

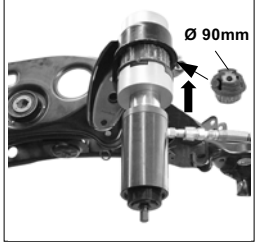
KL-0356-120



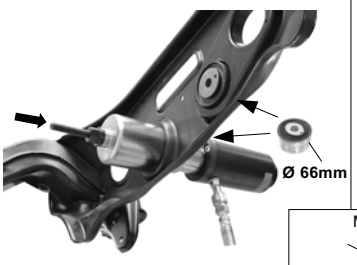
KL-0356-121



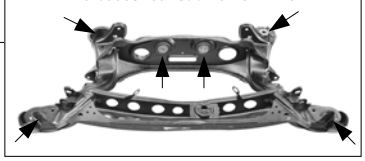
Bush replacement



Bush extraction



Mercedes rear sub-frame W210



KL-0356-11 Bush Extractor with Hydr. Cylinder

Suitable for Mercedes W202 (C-Class), W208 (CLK) rear sub-frame.

The **KL-0356-11 Bush Extractor allows *all*** bushes on the rear sub-frame (also Differential Mounting Bushes) to be quickly and easily removed and replaced.

Removal of the sub-frame is *not* necessary.

Advantages:

Fast ⇒ High Time savings, of 3 hours.
Safe ⇒ Hammer, chisel etc. not needed.
Universal ⇒ Hydr. Cylinder 17 t. **KL-0040-2500** is applicable for many KLANN- Tools.

KL-0356-11 *consists of:*

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (without coupling)
KL-0040-2552	Adaptor
KL-0356-110	**Bush Extractor with Hydraulic Cylinder**

KL-0356-110 Bush Extractor without Hydr. Cylinder

consists of:

Part No.	Description
KL-0040-2542	Puller Spindle M12 with Shoulder Nut
KL-0356-111	**Sleeve Set**

KL-0356-111 Sleeve Set

consists of:

Part No.	Description	Part No.	Description
KL-0356-1101	Support Sleeve	KL-0356-1106	Press Piece
KL-0356-0005	Adaptor Ring	KL-0356-1107	Support Sleeve
KL-0356-1102	Press Sleeve	KL-0356-1108	Support Sleeve
KL-0356-1103	Press Piece	KL-0356-1109	Press Sleeve
KL-0356-1104	Press Piece	KL-0355-2002	Support Ring
KL-0356-1105	Support Plate		

KL-0356-12 Bush Extractor with Hydr. Cylinder

Suitable for Mercedes W210 (E-Class) rear sub-frame.

The **KL-0356-12** Bush Extractor allows ***all*** bushes on the rear sub-frame (also Differential Mounting Bushes) to be quickly and easily removed and replaced.

Removal of the sub-frame is ***not*** necessary.

Advantages:

Fast ⇒ High Time savings of 3 hours.
Safe ⇒ Hammer, chisel etc. not needed.
Universal ⇒ Hydr. Cylinder 17 t. **KL-0040-2500** is applicable for many KLANN- Tools.

KL-0356-12 *consists of:*

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (without coupling)
KL-0040-2552	Adaptor
KL-0356-120	**Bush Extractor with Hydraulic Cylinder**

KL-0356-120 Bush Extractor without Hydr. Cylinder

consists of:

Part No.	Description
KL-0040-2542	Pull Spindle M12 with Shoulder Nut
KL-0356-121	**Sleeve Set**

KL-0356-121 Sleeve Set

consists of:

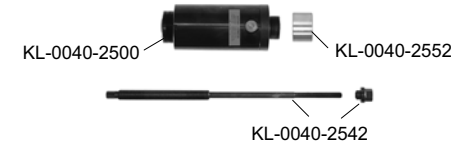
Part No.	Description	Part No.	Description
KL-0356-1201	Support Sleeve	KL-0356-1208	Mandrel
KL-0356-1202	Press Piece	KL-0356-1209	Press Piece
KL-0356-1203	Press Piece	KL-0356-1105	Support Plate
KL-0356-1204	Support Sleeve	KL-0356-1108	Support Sleeve
KL-0356-1205	Support Sleeve	KL-0356-1211	Press Sleeve
KL-0356-1206	Press Sleeve	KL-0356-1212	Press Piece
KL-0356-1207	Tension segment (2 Pcs.)		

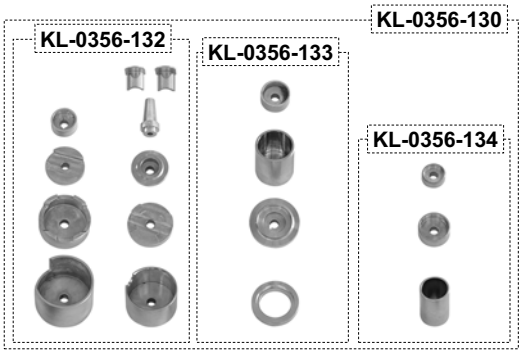
Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

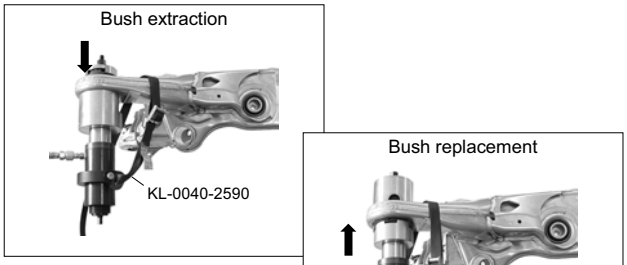
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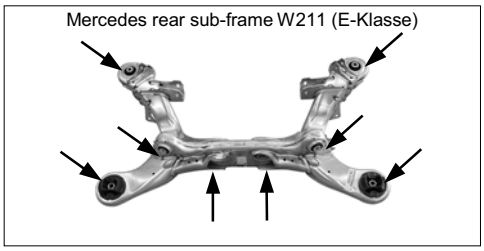
KL-0356-13

Mercedes W211



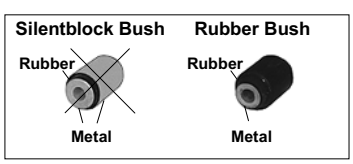




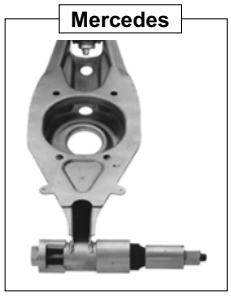


Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0352







KL-0356-13 Bush Extractor
with Hydraulic Cylinder

Suitable for Mercedes W211 (E class) rear sub-frame.

With the new **KL-0356-13** tool set, **all** silentbloc-type bushings at the rear axle subframe (including those holding the differential) can be removed or installed very quickly without the rear axle subframe having to be removed.

Advantages:

Fast ⇒ Time savings of up to 3 hours.
Safe ⇒ no hammer, chisel or similar tools needed.
Universal ⇒ **KL-0040-2500** hollow-piston hydraulic cylinder for removal and installation of wheel hubs, wheel bearings, support joints and silentbloc-type bushings.

KL-0356-13 Bush Extractor with Hydraulic Cylinder.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (without coupling)
KL-0040-2552	Adaptor
KL-0040-2542	Puller Spindle M12 with Shoulder Nut
KL-0356-130	**Sleeve Set**

KL-0356-130 Sleeve Set

consists of:

Part No.	Description
KL-0356-132	**Sleeve Set (for 75.5mm/90mm diameter rubber bushings)**
KL-0356-133	**Sleeve Set (für 66mm diameter differential bushings)**
KL-0356-134	**Sleeve Set (for 51mm diameter lateral link bushings)**

KL-0356-132 Sleeve Set for Rubber Bushes
(Ø75.5mm/Ø90mm)

consists of:

Part No.	Description	Part No.	Description
KL-0356-1311	Press Piece	KL-0356-1203	Press Piece
KL-0356-1312	Support Sleeve	KL-0356-1208	Mandrel
KL-0356-1321	Press Piece	KL-0356-1323	Press Piece
KL-0356-1322	Tension segment	KL-0356-1324	Support Sleeve
KL-0356-1201	Support Sleeve		

KL-0356-133 Sleeve Set for Differential Bush (Ø66mm)

consists of:

Part No.	Description	Part No.	Description
KL-0356-1331	Support Ring	KL-0043-8287	Press Piece
KL-0356-1332	Support Sleeve	KL-0356-1211	Press Piece

KL-0356-134 Sleeve Set for Cross Strut Bush (Ø51mm)

consists of:

Part No.	Description	Part No.	Description
KL-0356-1341	Press Piece	KL-0043-8577	Press Sleeve
KL-0043-8277	Press Sleeve		

Note: The use of the safety belt **KL-0040-2590** (see page 4-04) is always recommended when working with the hydraulic cylinder **KL-0040-2500** on the vehicle.

KL-0352 Bush Extractor for Rubber Bushes

To replace the inner bush on the lower rear wishbone on Mercedes W201 and W124.

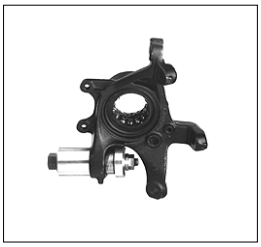
The Bush Extractor **KL-0352** allows quick, easy and safe replacement of the inner bush of the lower rear wishbone.
This tool is not intended for use with Silentblock Bushes (rubber bushes with metal outer housing).

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KL-0043-11

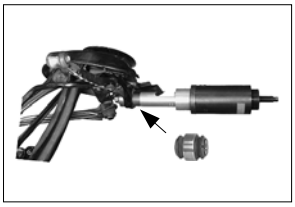
Mercedes W124 and W201





KL-0352-1





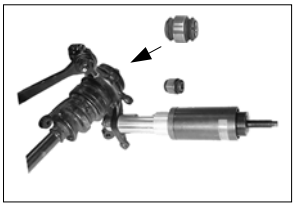
KL-0352-100



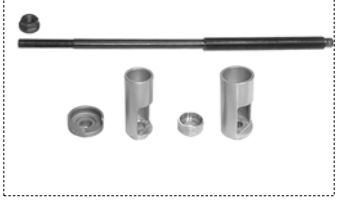
Mercedes W124, W201

KL-0352-2





KL-0352-200



Mercedes W140

KL-0357-10

Mercedes W168





KL-0043-11 Bush Extractor

Suitable for Mercedes W124 and W201 Rear Axle.

To replace the bush in the rear wheel-hub housing.
The tool contains an axial bearing and a corresponding distance piece which ensures that the replacement bush is correctly positioned within the housing.

KL-0352-1 Bush Extractor
with Hydraulic Cylinder

Suitable for Mercedes W124, W201 Rear Axle.

The Bush Tool **KL-0352-1** allows quick, easy and safe replacement of the bushes in the wheel bearing housing of the rear axle, without the need to dismantle the bearing housing.

consists of:

Part No:	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t	1
KL-0040-2552	Adaptor M42x2 to Ø30	1
KL-0352-100	**Bush Extractor without Hydr. Cylinder**	**1**

KL-0352-100 Bush Extractor without Hydraulic Cylinder

consists of:

Part No:	Description	Part No:	Description
KL-0352-1001	Sleeve (extraction)	KL-0043-1104	Sleeve (extraction)
KL-0352-1002	Press Piece (insertion)	KL-0043-1105	Nut M14
KL-0043-1103	Sleeve (insertion)	KL-0040-2543-1	Puller Spindle M14

KL-0352-2 Bush Extractor
with Hydraulic Cylinder

Suitable for Mercedes W140 (S-Class) Rear Axle.

The **KL-0352-2** allows simple, quick and safe replacement of bushes in the rear wheel-bearing housing, without the need to dismantle the bearing housing.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-0352-200	**Bush Extractor without Hydr. Cylinder**	**1**

KL-0352-200 Bush Extractor without Hydraulic Cylinder

consists of:

Part No:	Description	Part No:	Description
KL-0352-1001	Sleeve (extraction)	KL-0043-1104	Sleeve (extraction)
KL-0352-1002	Press Piece (insertion)	KL-0043-1105	Nut M14
KL-0352-2001	Sleeve (insertion)	KL-0040-2543-1	Puller Spindle M14

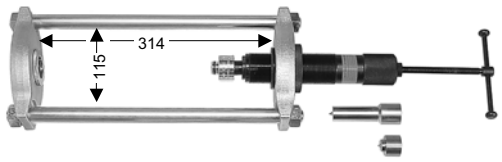
KL-0357-10 Bush Extractor for
Trailing Arm Bearing

For Mercedes W168 (A-Class) Rear Trailing Arm.

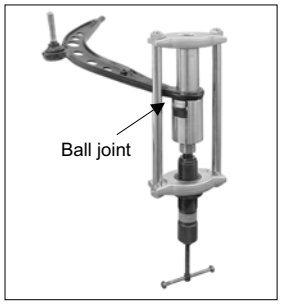
Allows precise extraction and insertion of the inner and outer Taper Roller Bearings and Seals.

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KL-0043-823





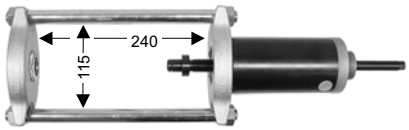


Accessories: KL-0043-8231





KL-0043-859



BMW E36





KL-0043-8296



BMW E30



KL-0043-823 Press Tool with Hydraulic Spindle

Suitable for BMW E36 front lower wishbone.

Outer ball-joints on the lower front wishbone may be quickly and cleanly replaced using the tool **KL-0043-823.**
Replacement of the outer ball-joint can be carried out within minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0045-70	Hydr.-Spindle 12 t
KL-0043-8200	Press frame long
KL-0043-8294	Press/ support sleeve set

KL-0043-8294 Press/ support sleve set long

Suitable for BMW E36 front lower wishbone

The press/ support sleeve set **KL-0043-8294** offers the same capability as the hand press set **KL-0043-823** to quickly and easily replace ball-joints if the Press Frame **KL-0043-8211** and the hydraulic spindle 12t **KL-0045-70** is already available.

consists of:

Part No.	Description
KL-0043-8288-1	Press sleeve E36
KL-0043-8289-1	Support sleeve E36

Part No.	Description
KL-0043-8271	Press/ support sleeve
KL-0043-8276	Press/ support sleeve

Accessories: KL-0043-8231 Press sleeve E36

Middle ball joint on the lower front wishbone can be inserted easy and quickly with the tool set **KL-0043-823** in conjunction with the press sleeve **KL-0043-8231.**

KL-0043-859 Hydraulik Press Set

Suitable for BMW E36 front lower wishbone.

Middle ball-joints on the lower front wishbone may be quickly and cleanly replaced using the tool **KL-0043-859.**
Replacement of the outer ball-joint can be carried out within minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic cylinder
KL-0040-2510	Press spindle
KL-0043-8510	Press frame short
KL-0043-8594	Press/ support sleeve set

KL-0043-8594 Press/support sleeve set

Suitable for BMW E36 front lower wishbone.

The Press/support tube set **KL-0040-8594** allows quick and easy removal and replacement of the outer ball-joint if the press frame **KL-0043-8510,** the pressure spindle **KL-0040-2510** and the Hydraulic Cylinder 17t **KL-0040-2500** is already available.

consists of:

Part No.	Description
KL-0043-8288-1	Press sleeve E36
KL-0043-8289-1	Support sleeve E36

Part No.	Description
KL-0043-8571	Press/ support sleeve
KL-0043-8576	Press/ support sleeve

KL-0043-8296 Press-/Support Tube Set long

Suitable for BMW E30 front lower wishbone.

The press/ support sleeve set **KL-0043-8296** allows quick and easy removal and replacement of the outer ball-joint if the press frame **KL-0043-8200** and the hydraulic spindle 12t **KL-0045-70** is already available.

consists of:

Part No.	Description
KL-0043-8267	Press/ support sleeve
KL-0043-8272	Press/ support sleeve

Part No.	Description
KL-0043-8273	Press/ support sleeve
KL-0043-8276	Press/ support sleeve

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4

KL-0515-1



BMW



KL-0515-11

KL-0515-110



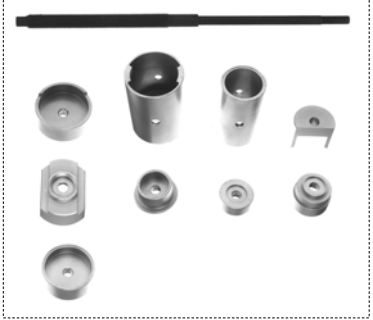
BMW



KL-0515-2



KL-0515-200



BMW E36



Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0515-1 Bush Extractor
(with mechanical Drive)

For replacing the mounting bushes of rear **sub-frame.**

Suitable for BMW E30 (3 series 1982 to 1990),
E36 Compact / Z3
E28 (5 series 1981 to 1987),
E34 (5 series 1988 to 1995),
E32 (7 series 1986 to 1994).

Stubborn or corroded bushes are quickly, cleanly and safely replaced using the **KL-0515-1** on the car. Dropping the sub-frame is eliminated.

KL-0515-100 Bush Extractor without Drive

As **KL-0515-1** but for hydraulic drive,
If the Puller Spindle **KL-0040-2543-1** and Hydraulic Cylinder **KL-0040-2500** are already available.

KL-0515-11 Bush Extractor
(with mechanical Drive)

For replacing the mounting bushes of rear sub-frame..

Suitable for BMW E30 (3er series 1982 to 1990),
E36 Compact / Z3

Stubborn or corroded bushes are quickly, cleanly and safely replaced using the **KL-0515-11** on the car. Dropping the sub-frame is eliminated.

KL-0515-110 Bush Extractor without Drive

As **KL-0515-11** but for hydraulic drive,
If the Puller Spindle **KL-0040-2543-1** and Hydraulic Cylinder **KL-0040-2500** are already available.

KL-0515-2 Bush Extractor
with Hydraulic Cylinder

Suitable for BMW E36 (3 series 1990-1998).
not E36 Compact / Z3.

The **KL-0515-2** Bush Extractor allows *all* bushes on the rear sub-frame to be quickly and easily removed and replaced.

Removal of the sub-frame is ***not*** necessary.

Advantages:

- Large time savings as sub-frame must not be removed.
- Precise removal and insertion of the bushes due to the Hydraulic Cylinder **KL-0040-2500** included in the tool.

KL-0515-200 Bush Extractor with Hydraulic Cylinder

As **KL-0515-2**.
If Hydraulic Cylinder **KL-0040-2500** is already available.

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KL-0515-3

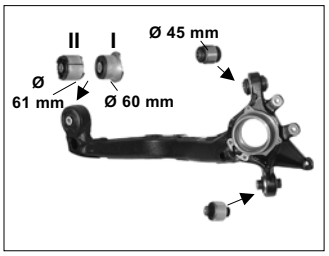


BMW E36, E46

KL-0515-300



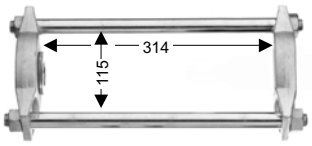




KL-0516-10

BMW E30, E36 Compact, Z3





KL-0516-100





Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0515-3 Bush Extractor
with Hydraulic Cylinder

Suitable for BMW E36, E46 (3 series) Limousine, Touring and convertible rear trailing arm.
(not E36 Compact / Z3)

Bushes and Pivot Bearings on the rear trailing arm may be replaced within a few minutes using the **KL-0515-3.** Stubborn, corroded bushes present no problem. Extraction and insertion of earlier "I" (E36) version bushes as well as the later split steel version "II" (E36, E46) is possible.

This work may be carried out without removal of the trailing arm.

Specification:

Part No.	Description	Qty.
KL-0515-3	**Bush Extractor with Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 auf Ø30	1
KL-0515-300	**Bush Extractor without Hydraulic Cylinder**	**1**

KL-0515-300 Bush Extractor
without Hydraulic Cylinder

As **KL-0515-3.**

If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

Specification:

Part No.	Description	Qty.
KL-0515-300	**Bush Extractor without Hydraulic Cylinder**	**1**
consists of:		
KL-0515-3001	Support tube old bush	1
KL-0515-3002	Support tube new bush	1
KL-0515-3003	Press piece	1
KL-0515-3004	Support tube	1
KL-0515-3005	Press piece	1
KL-0515-3006	Support tube insertion	1
KL-0040-2542	Puller spindle M12 with nut	1

KL-0516-10 Press Tool
with Hydraulic Cylinder

Suitable for Bushes BMW E30 / E36 Compact / Z3 Rear Trailing Arm.

Bushes on the Rear Trailing Arm can be removed and replaced within a few minutes with the **KL-0516-10**. Even stubborn, corroded Bushes present no problem.

This operation can be performed without the need to remove the Trailing Arm from the vehicle.

Specification:

Part No.	Description	Qty.
KL-0516-10	**Press Tool with Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic cylinder 17 t.	1
KL-0040-2510	Press spindle	1
KL-0043-8200	Press frame, long	
KL-0516-100	**Sleeve set for BMW Z3 / E30 / E36 Compact**	**1**

KL-0516-100 Sleeve Set E30 / E36 Compact / Z3 rear trailing arm.

As **KL-0516-10**.

If Hydraulic Cylinder **KL-0040-2500**, Spindle **KL-0040-2510** and Press Frame **KL-0043-8200** are already available.

Specification:

Part No.	Description	Qty.
KL-0516-100	**Sleeve set for BMW Z3 / E30 / E36 Compact**	**1**
consists of:		
KL-0516-1001	Support tube	1
KL-0516-1002	Press piece extraction	1
KL-0516-1003	Press piece insertion	1

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KL-0516-2



BMW E39

KL-0516-200





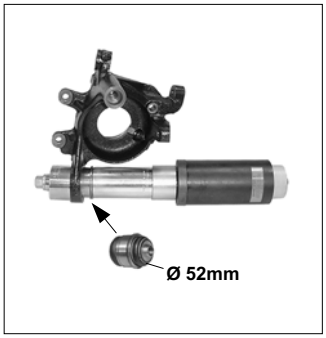
KL-0515-4



BMW E38, E39

KL-0515-400





Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0516-2 Bush Extractor
with Hydraulic Cylinder

Suitable for BMW E39 (5 series 1995 - 2003) front axle.

The **KL-0516-2** allows quick, easy and safe removal and replacement of Bushes in the front tension strut.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydr. Cylinder 17 t.	1
KL-0040-2552	Adaptor M42x2 to Ø30	1
KL-0516-200	**Bush Extractor without Hydraulic Cylinder and Adaptor**	**1**

KL-0516-200 Bush Extractor
without Hydr. Cylinder

As **KL-0516-2**.

If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0516-2001	Press piece
KL-0516-2002	Press-/support tube
KL-0040-2542-1	Puller spindle M12
KL-0040-2542-2	Nut M12

KL-0515-4 Bush Extractor
with Hydraulic Cylinder

Suitable for BMW E38 7 series, E39 5 series (rear axle).

The **KL-0515-4** allows quick, clean and easy removal and replacement of the bottom bush in the rear wheel-bearing housing.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t	1
KL-0040-2552	Adaptor M42x2 / Ø30	1
KL-0515-400	**Bush Extractor without Hydraulic Cylinder**	**1**

KL-0515-400 Bush Extractor
without Hydr. Cylinder

As **KL-0515-4**.

If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0515-4001	Sleeve (extraction)
KL-0515-4002	Press Piece (extraction)
KL-0515-4003	Sleeve (insertion)
KL-0515-4004	Press Piece (insertion)
KL-0040-2543-1	Puller Spindle M14
KL-0040-2543-2	Nut M14

Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

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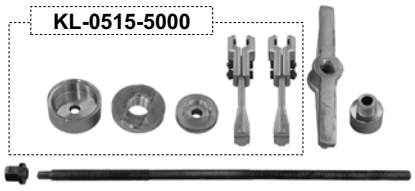
KL-0515-50

BMW E39



KL-0515-500

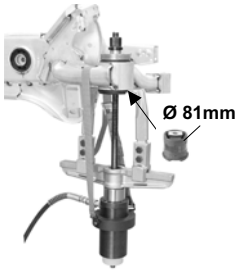
KL-0515-5000





KL-0040-2590

Limousine



Accessories: KL-0515-501



Touring



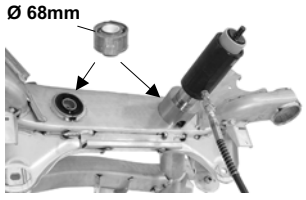
KL-0515-51



BMW E39

KL-0515-510





Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0515-50 Bush Extractor with Hydraulic Cylinder

Suitable for BMW E39 (5 series) Limousine and Touring Rear Sub-frame.

The **KL-0515-50** Bush Extractor allows bushes on the rear sub-frame to be quickly and easily removed and replaced.

Removal of the sub-frame is ***not*** necessary.

consists of:

Part No.	Description	Qty.
KL-0515-50	**Bush Extractor with Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17 t	1
KL-0040-2590	Safety belt for hydr. cylinder KL-0040-2500	1
KL-0515-500	**Bush Extractor without Hydr. Cylinder**	**1**

KL-0515-500 Bush Extractor without Hydraulic Cylinder

As **KL-0515-50**.

If Hydraulic Cylinder **KL-0040-2500** and safety belt **KL-0040-2590** are already available.

consists of:

Part No.	Description	Qty.
KL-0515-500	**Bush Extractor without Hydraulic Cylinder**	**1**
consists of:		
KL-0515-5001	Bridge	1
KL-0515-5002	Adaptor M42x2 to M34	1
KL-0040-2545-1	Puller spindle M18	1
KL-0040-2545-3	Nut M18	1
KL-0515-5000	**Hook, press piece set**	**1**

Part No.	Description	Qty.
KL-0515-5000	**Hook, press piece set**	**1**
consists of:		
KL-0515-5003	Puller	2
KL-0515-5004	Press Piece (extraction)	1
KL-0515-5005	Press Piece (insertion)	1
KL-0515-5006	Support Sleeve (insertion)	1

Accessories: KL-0515-501 Supplement Kit for BMW X5

For removal and replacement of the bushes on the rear sub-frame (**BMW X5)** in conjunction with the bush extractor **KL-0515-50**.

consists of:

Part No.	Description	Qty.
KL-0515-5011	Press Piece (extraction)	1
KL-0515-5012	Support Sleeve	1

KL-0515-51 Bush Extractor with Hydraulic Cylinder

Suitable for BMW E39 rear axle differential-suspension.

For quick and easy regenerate the both bushes (Ø-68 mm) on the rear axle differential-suspension.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic cylinder 17 t	1
KL-0040-2552	Adaptor M42x2 / Ø30	1
KL-0515-510	**Bush Extractor without Hydraulic Cylinder**	**1**

KL-0515-510 Bush Extractor without Hydraulic Cylinder

As **KL-0515-51**.

If the Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description	Qty.
KL-0515-5101	Support Sleeve	1
KL-0515-5102	Support Sleeve	1
KL-0040-2542	Puller spindle M12 with nut	1

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KL-0421-1



Opel Vectra

KL-0421-100

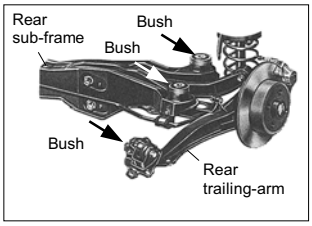


Bush extraction



Bush insertion





KL-0421-2 A

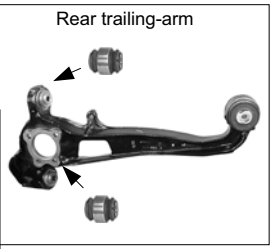


Opel Vectra

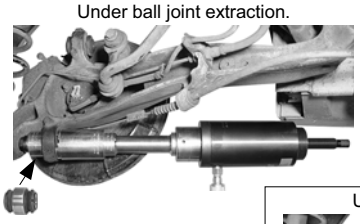
KL-0421-200 A



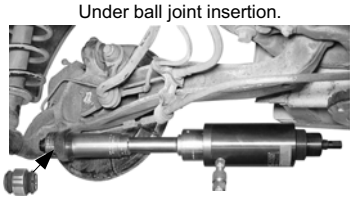
Rear trailing-arm



Under ball joint extraction.



Under ball joint insertion.



Note: The use of the safety belt **KL-0040-2590** (see page 4-06) is always recommended when working with the Hydraulic Cylinder **KL-0040-2500** on the vehicle.

KL-0421-1 Bush Extractor
with Hydraulic Cylinder

Suitable for Opel Vectra 1995-onwards rear trailing arm and rear sub-frame.

The removal and replacement of the bushes on the rear trailing-arm and rear sub-frame can be performed in minutes with the new tool **KL-0421-1** quickly, safely and cleanly without the need to dismantle the suspension or sub-frame.

Advantages:

Fast ⇒ Time savings of up to 3 hours.
Safe ⇒ Hammer, Chisels or oxy-torches not needed.
Simple ⇒ Precisely formed press-tools ensure extraction and replacement without risk of damage to the bush.
Universal ⇒ Hydraulic Cylinder 17 t. **KL-0040-2500** may be used in conjunction with many KLANN tools.

KL-0421-100 Bush Extractor
without Hydraulic Cylinder

As **KL-0421-1**.
If Hydraulic Cylinder **KL-0040-2500** is already available.

consists of:

Part No.	Description
KL-0421-1001	Support Sleeve (trailing-arm)
KL-0040-2511	Bolt M8 x 16
KL-0421-1002	Press Piece (trailing-arm)
KL-0421-1003	Press Piece (trailing-arm)
KL-0421-1004	Support Sleeve (trailing-arm)
KL-0421-1005	Support Sleeve (sub-frame)
KL-0421-1006	Press Piece (sub-frame)
KL-0421-1007	Support Sleeve (sub-frame)
KL-0421-1008	Press Piece (sub-frame)
KL-0040-2542-1	Puller Spindle M12
KL-0350-2007	Shoulder nut M12

KL-0421-2 A Bush Extractor
with Hydraulic Cylinder

Suitable for Opel Vectra 1995-onwards trailing arm.

The removal and replacement of the pivot bearings on the rear trailing-arm can be performed in minutes with the new tool **KL-0421-2 A** quickly, safely and cleanly without the need to dismantle the suspension or sub-frame.

KL-0421-200 A Bush Extractor
without Hydraulic Cylinder

As **KL-0421-2 A**.
If Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0421-2001	Support Sleeve
KL-0421-2002	Press Piece (extraction)
KL-0421-2003	Support Sleeve (insertion)
KL-0421-2004	Press-/Support Sleeve 46 mm
KL-0421-2005	Shoulder nut M12 flat
KL-0421-2006	Extension piece
KL-0039-1912-1	Puller spindle M12

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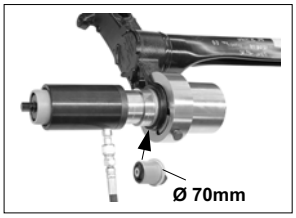
KL-0421-3



Opel Astra

KL-0421-300





Note: For further Hydraulic-Tools e.g. for Ball-Joint **Opel Movano** see HGV-Chapter

KL-0610-10



Ford Mondeo

KL-0610-100





KL-0626-10



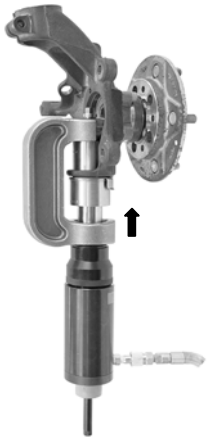
Ford Transit



KL-0626-100



Ball joint insertion



Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0421-3 Bush Extractor with Hydr. Cylinder (German Utility Model)

Suitable for Opel Astra 2003 onwards Rear Axle.

Allows quick and easy replacement of Bushes on the rear axle without the need to remove the axle from the car.

KL-0421-300 Bush Extractor without Hydraulic Cylinder

As **KL-0421-3**
If the Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0421-3001	Support Sleeve with Chuck Jaws
KL-0421-3002	Press Piece
KL-0421-3003	Press Piece
KL-1001-1002	Support Sleeve, short
KL-0040-2542	Puller Spindle M12 with Nut

KL-0610-10 Bush Extractor with Hydr. Cylinder

Suitable for Ford Mondeo II 1996-00 Front Axle

The **KL-0610-10** allows quick, easy and safe removal and replacement of both Bushes in the front lower wishbone without need to remove the wishbone from the car.

KL-0610-100 Bush Extractor without Hydraulic Cylinder

As **KL-0610-10**
If the Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0043-8281	Press-/Support Sleeve 68 mm
KL-0043-8575	Press-/Support Sleeve, short 56/48
KL-0043-8576	Press-/Support Sleeve, short 58/50
KL-0043-8570	Press-/Support Sleeve, short 46/38
KL-0040-2542	Puller Spindle M12 with Shoulder Nut

KL-0626-10 Hydraulic Press Tool Kit (German Utility Model)

Suitable for Ford Transit 2002 onwards, front axle.

The support joint can be pressed out of or into the wheel bearing housing quickly and without difficulty, using Press Tool **KL-0626-10**. The support joint can be removed from or installed on the vehicle in just a few minutes, without the wheel bearing housing having to be removed.

Specification

Part No.	Description	Qty.
KL-0626-10	**Hydraulic Press Tool with Hydr. Cylinder**	**1**
consists of:		
KL-0626-100	**Hydraulic Press Tool without Hydr.Cylinder**	**1**
KL-0040-2500	Hydraulic cylinder 17t	1
KL-0040-2510	Press spindle	1

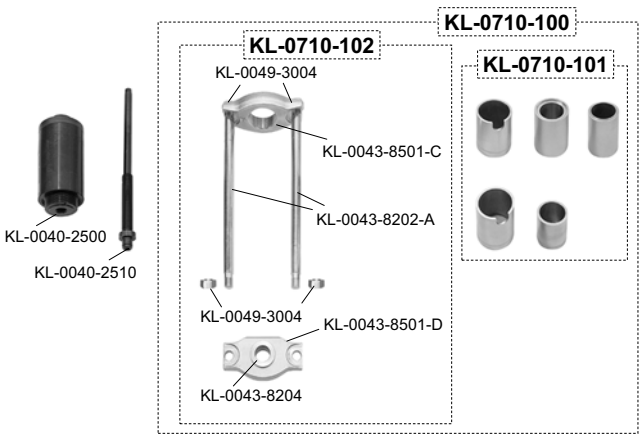
Part No.	Description	Qty.
KL-0626-100	**Hydraulic Press Tool Kit without Hyd. Cylinder**	**1**
consists of:		
KL-0626-1001	Press Frame	1
KL-0626-1002	Coil screw	1
KL-0174-559	Adaptor 2 1/4"-14UNS to 2 1/4"-14UNS	1
KL-0626-1003	Press Tube (removal) Ø: 38mm	1
KL-0626-1004	Support Tube (removal) Ø: 66,5mm	1
KL-0626-1005	Support Tube (replacement) Ø: 54mm	1
KL-0626-1006	Press Tube (replacement) Ø: 56mm	1

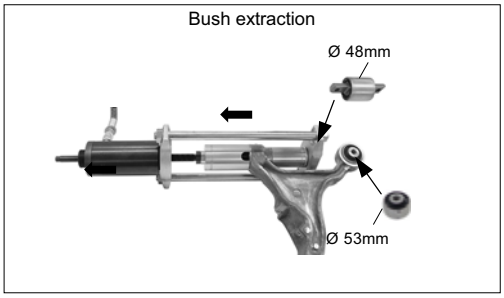
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KL-0710-10

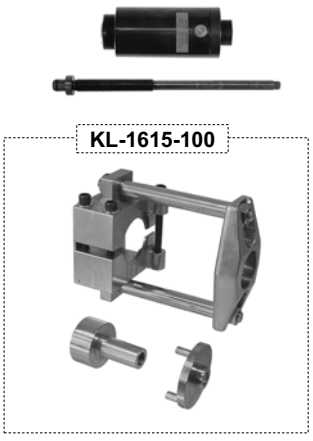
Volvo

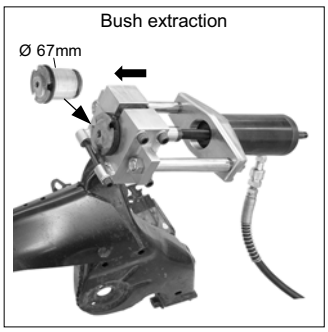


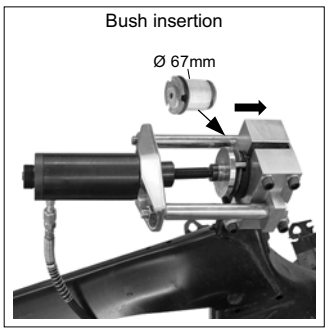


KL-1615-10

Fiat Stilo







Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0710-10 Hydraulic Press Tool

Suitable for **Volvo S60, V70, XC70 ('01 onwards) and S80 (`98 onwards) Front Axle with Bush diameter Ø48mm and Ø53mm.**

For easy, safe and rapid removal and installation of the two silentbloc-type bushings on the lower suspension wishbone, without having to remove the wishbone completely.

KL-0710-100 Press Tool
without Hydraulic Cylinder

As **KL-0710-10.**

If the hydraulic cylinder **KL-0040-2500** and the spindle **KL-0040-2510** are already available.

consists of:

Part No.	Description	Qty.
KL-0710-102	**Press Frame without Drive**	**1**
KL-0710-101	**Sleeve Set**	**1**

Part No.	Description	Qty.
KL-0710-102	**Press Frame without Drive**	**1**
consists of:		
KL-0043-8202-A	Frame Rods M18	2
KL-0049-3004	Hex Nut M18	4
KL-0043-8501-C	Base Plate 2¼"-14 UNS	1
KL-0043-8501-D	Base Plate M42 x 2	1
KL-0043-8204	Adaptor M42x2 toØ30	1

Part No.	Description	Qty.
KL-0710-101	**Sleeve Set**	**1**
consists of:		
KL-0710-1001	Support Sleeve 62 mm; Ø54mm/Ø62mm	1
KL-0710-1002	Press Sleeve 60 mm; Ø47mm/Ø60mm	1
KL-0710-1003	Press Sleeve 53 mm; Ø42mm/Ø53mm	1
KL-0710-1004	Support Sleeve 60 mm; Ø52mm/Ø60mm	1
KL-0710-1005	Press Sleeve 48 mm; Ø40mm/Ø68mm	1

KL-1615-10 Press Tool Kit with Hydr. Cylinder

Suitable for Fiat Stilo rear axle.

The Hydraulic Press Tool Kit **KL-1615-10** allows quick, easy and safe extraction and replacement of rear axle Bushes. Even severely corroded and stubborn bushes may be replaced within a few minutes.

consists of:

Part No.	Description	Qty.
KL-0040-2500	Hydraulic Cylinder 17 t.	1
KL-0040-2510	Press Spindle	1
KL-1615-100	**Press Tool Kit without Hydr.Cylinder**	**1**

KL-1615-100 Press Tool Kit
without Hydraulic Cylinder

As **KL-1615-10.**

If the Hydraulic Cylinder **KL-0040-2500** and the spindle **KL-0040-2510** are already available.

consists of:

Part No.	Description	Qty.
KL-1615-101	Chuck jaws pair Ø 85mm	1
KL-0039-1101	Base plate	1
KL-0039-112	Towing bar 180 mm lang	2
KL-1615-1001	Press piece extraction	1
KL-1615-1002	Press piece insertion	1

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KL-1210-1



Renault Laguna Espace III



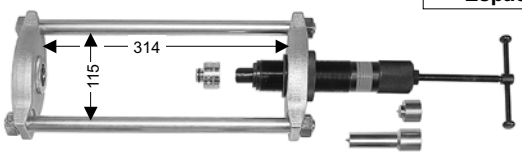
KL-1210-100





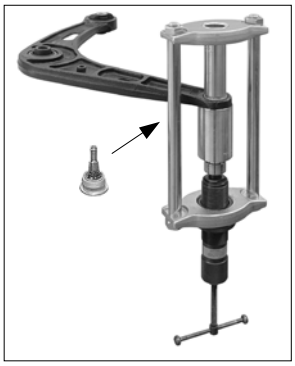
KL-0043-826

Renault Laguna Espace III



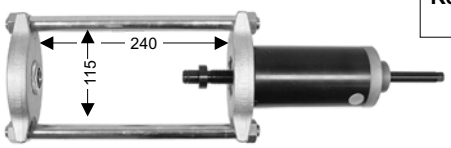
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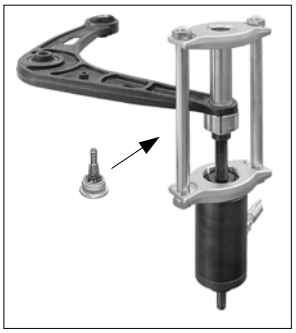
KL-0043-840

Renault Laguna Espace III



KL-0043-8596





KL-1210-1 Bush Extractor
with Hydraulic Cylinder

Suitable for Renault Laguna and Espace III Front Axle.

Both middle and outer bushes may be quickly, cleanly and safely pressed out and replaced using **KL-1210-1**.

KL-1210-100 Bush Extractor
without Hydraulic Cylinder

As **KL-1210-1**

If the Hydraulic Cylinder **KL-0040-2500** and Adaptor **KL-0040-2552** are already available.

consists of:

Part No.	Description
KL-0043-8281	Press-/support sleeve 68 mm (I)
KL-0043-8574	Press-/support sleeve short 54 mm (II)
KL-1210-1001	Press piece insertion (III)
KL-0040-2542	Puller spindle M12 with Shoulder nut

KL-0043-826 Press Tool Set

Suitable for Renault Laguna and Espace III.

The **KL-0043-826** allows quick, easy and safe extraction and replacement of the Ball-Joint in the lower front wishbone. Replacement of the Ball-Joint is performed within a few minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0045-70	Hydraulic Spindle12 t
KL-0043-8200	Press frame long
KL-0043-8297	**Press-/support tube set**

KL-0043-8297 Press-/Support Tube Set

consists of:

Part No.	Description
KL-0043-8232	Press tube for Renault Laguna
KL-0043-8264	Press-/support tube 34 mm
KL-0043-8271	Press-/support tube 48 mm
KL-0043-8274	Press-/support tube 54 mm

KL-0043-840 Hydraulic Press Tool Kit

Suitable for Renault Laguna and Espace III.

The **KL-0043-840** allows quick, easy and safe extraction and replacement of the Ball-Joint in the lower front wishbone. Replacement of the Ball-Joint is performed within a few minutes without the need to remove the wishbone from the car.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17t
KL-0040-2510	Press spindle
KL-0043-8510	Press frame short
KL-0043-8596	**Press-/support tube set**

KL-0043-8596 Press-/Support Tube Set

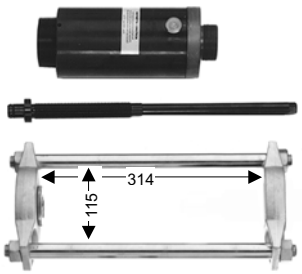
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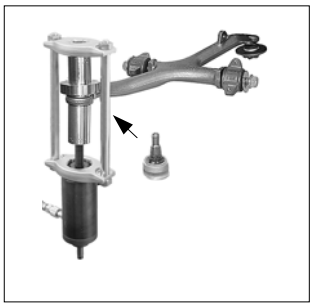
Part No.	Description
KL-0043-8232	Press tube for Renault Laguna
KL-0043-8264	Press-/support tube 34 mm
KL-0043-8571	Press-/support tube 48/40 mm
KL-0043-8574	Press-/support tube 54/46 mm

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KL-0043-829

Opel/Vauxhall, Renault





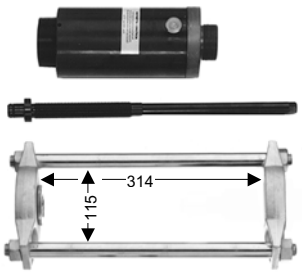
KL-0043-8298



,

KL-0043-810

Opel/Vauxhall, Renault





KL-0043-8101



KL-1210-2

Opel/Vauxhall, Renault

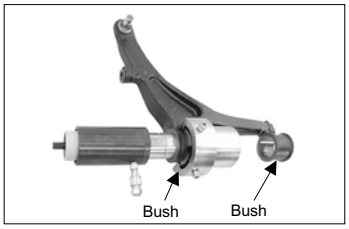


KL-1210-200



KL-1210-201





KL-0043-829 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-829** allows quick, easy and safe removal and replacement of the ***Ball-Joint in the upper front wishbone***. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description	Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-0043-8200	Press frame short
KL-0040-2510	Pressure spindle	KL-0043-8298	Press-/support tube set

KL-0043-8298 Press/Support Tube Set

consists of:

Part No.	Description	Part No.	Description
KL-0043-8269	Press-/support tube	KL-0043-8276	Press-/support tube
KL-0043-8233	Press-/support tube	KL-0043-8279	Press-/support tube

KL-0043-810 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-810** allows quick, easy and safe removal and replacement of the Ball-Joint in the lower front wishbone. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description	Part No..	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-0043-8200	Press frame
KL-0040-2510	Pressing spindle	KL-0043-8101	Press/support tube set

KL-0043-8101 Press/Support Tube Set

consists of:

Part No..	Description	Part No..	Description
KL-0043-8237	Press/support tube	KL-0043-8274	Press/support tube
KL-0043-8238	Press/support tube	KL-0043-8276	Press/support tube

KL-1210-2 Bush Extractor with Hydr.Cylinder (German Utility Model)

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Bush Extractor **KL-1210-2** allows quick, easy and safe removal and replacement of both Bushes in the lower front wishbone.

consists of:

Part No.	Description	Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-1210-200	Bush extractor without
KL-0040-2552	Adaptor M42x2 / Ø30		Hydraulic cylinder 17 t.

KL-1210-200 Bush Extractor without Hydr. Cylinder

consists of:

Part No.	Description	Part No.	Description
KL-0040-2543	Pull spindle M14 with nut	KL-1210-201	Press/support tube set

KL-1210-201 Press/Support Tube Set

consists of:

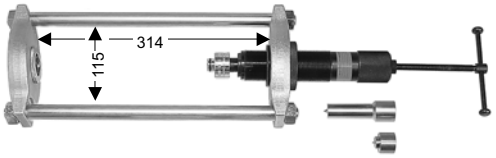
Part No.	Description	Part No.	Description
KL-1210-2001	Support tube	KL-1210-2004	Pressure piece
KL-1210-2002	Pressure piece	KL-1210-2005	Pressure piece
KL-1210-2003	Support tube		

Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

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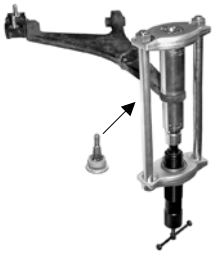
KL-0043-828

Citroën, Peugeot

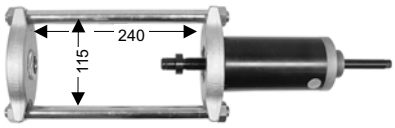


KL-0043-8293





KL-0043-858



Citroën, Peugeot

KL-0043-8593



KL-1340-10



Citroën, Peugeot



KL-0043-828 Press Tool Set with hydr. Spindle

Suitable for Citroën AX, Saxo and Peugeot 106.

The Press Tool Set **KL-0043-828** allows quick and easy removal and replacement of the bottom ball-joint in the wishbone. Removal and replacement of the ball-joint can be performed on the vehicle within a few minutes without the need to dismantle the wishbone from the car.
Time-saving 2 hours plus.

consists of:

Part No.	Description
KL-0045-70	Hydraulic spindel 12 t.
KL-0043-8200	Press frame long
KL-0043-8293	Press-/support tube set

KL-0043-8293 Press-/ Support Tube Set

consists of:

Part No.	Description
KL-0043-8234	Press-/support tube
KL-0043-8262	Press-/support tube
KL-0043-8268	Press-/support tube
KL-0043-8272	Press-/support tube

KL-0043-858 Press Tool with Hydr. Cylinder

Suitable for Citroën AX, Saxo and Peugeot 106.

The Press Tool Set **KL-0043-858** allows quick and easy removal and replacement of the bottom ball-joint in the wishbone. Removal and replacement of the ball-joint can be performed on the vehicle within a few minutes without the need to dismantle the wishbone from the car.
Time-saving 2 hours plus.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2510	Press spindle
KL-0043-8510	Press frame short
KL-0043-8593	Press-/support tube set

KL-0043-8593 Press-/ Support Tube Set

consists of:

Part No.	Description
KL-0043-8534	Press-/support tube
KL-0043-8262	Press-/support tube
KL-0043-8568	Press-/support tube
KL-0043-8272	Press-/support tube

KL-1340-10 Toothed Socket

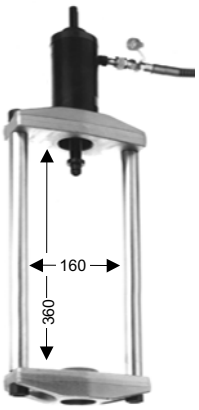
For screwing in and out the support joint (lower steering knuckle) for: **Citroën BX (9-'82 to '94), Peugeot 305 (7-'82 to '90), Peugeot 405 (6-'87 onwards)** etc.

Technical data

Diameter-outer: ..... 52,0 mm
Diameter-inner: ..... 42,5 mm
Tooth Width: ..... 5,5 mm
Weight: ..... 0,52 kg

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KL-0043-900

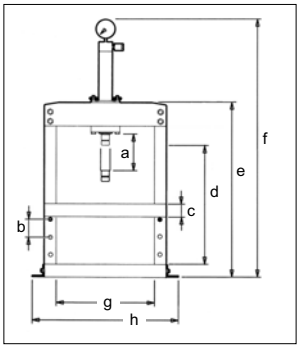




KL-0145-80







KL-0159-12



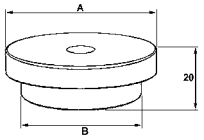
Application



KL-0159-11



Dimensions



KL-0043-900 Hydraulic Press 17 t

The Hydraulic Press **KL-0043-900** in conjunction with Press Tools **KL-0043-8295, KL-0043-8595** and Press Tools **KL-0159-11** and **KL-0159-12** may be used for dismantling and assembling Drive Shafts, Suspension Bolts, Bearings, Bushes, etc.
Due to the handy construction the Hydraulic Press may also be used on the vehicle. Weight:.....26,6 kg

Contents:

Part No:	Description
KL-0043-900	**Hydraulic Press**
consists of:	
KL-0043-902	Press Frame
KL-0040-2500	Hydraulic Cylinder
KL-0040-2510	Spindle
KL-0215-35	Hydraulic hand pump with hose and coupling

Technical Data Press Frame KL-0043-902:

Total height	430 mm	Rod-Ø	30 mm
Working height	360 mm	Thread to accept Cylinder	2¼"-14UNS
Total width	220 mm	Adaptor	2¼"-14UNS to Ø 30 mm
Working width	160 mm	Weight	14,2 kg
Depth	100 mm		

KL-0145-80 Hydraulic Bench Press 10 t
with Hand Pump

The Hydraulic Bench Press **KL-0145-80** including Press Piece and Stripper Plate - in conjunction with Press Tools **K-0043-8295, KL-0043-595** and Press Tools **KL-0159-11** and **KL-0159-12** may be used for dismantling and assembling Drive Shafts, Suspension Bolts, Bearings, Bushes, etc.

Contents:

Part No:	Description
KL-0145-80	**Hydraulic Bench Press 10 t with Hand Pump**
consists of:	
KL-0145-801	Hydraulic Bench Press 10 t without Hand Pump
KL-0215-35	Hydraulic Hand pump with hose and coupling

Technical Data:

a	145 mm	c	72 mm	e	715 mm	g	460 mm
b	102 mm	d	490 mm	f	990 mm	h	540 mm

KL-0145-801 Hydraulic Bench Press 10 t

As **KL-0145-80** but without Hydraulic Hand Pump **KL-0215-35**.

KL-0159-12 Pressure Piece Set Ø 50-78 mm

For extraction and assembly of Bearings, Shafts, Bushes, etc. in conjunction with Hydraulic Press, Puller Tools or Klann **KL-0043-82, KL-0043-85** and **KL-0043-90**.

Mounting diameter 20 mm, Ø A 52 - 80 mm in 2 mm steps, Ø B 50 - 78 mm in 2 mm steps.

The Set consists of a Pilot, a Blank and 15 Pressure Pieces.

KL-0159-11 Pressure Piece Set Ø 20-48 mm

As **KL-0159-12** with Mounting Diameter Ø 10 mm,
Ø A 22 mm - 50 mm in 2 mm steps,
Ø B 20 mm - 48 mm in 2 mm steps.
The Set consists of a Pilot, a Blank and 15 Pressure Pieces.

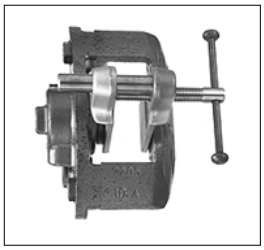
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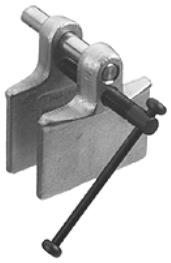
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KL-0111-1





KL-0111-2

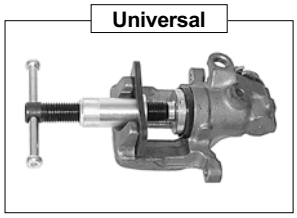




KL-0113-20 K



Universal



Accessories:

KL-0113-2010



KL-0112-0008

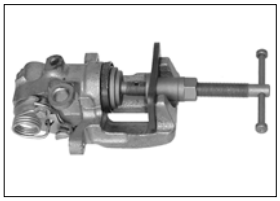


KL-0112-0013



KL-0112-3





Accessories:

KL-0112-3010



KL-0112-0013



KL-0111-1 Caliper Pressing Tool
with narrow jaws

For fully floating caliper with single or double piston or for fixed caliper with two pistons.
This tool allows quick and clean pressing back of caliper pistons into caliper housings without damage to seal or caliper piston.

Advantages:

- No sticking of caliper pistons while pressing back.
- Low working force due to precise guide.
- High stability and wear-resistance due to hardened jaws and hardened pilot bolts.
- High precision manufactured tool guarantees easy and durable usage.

Technical Data: See KL-0111-2

KL-0111-2 Caliper Pressing Tool
with wide jaws

As **KL-0111-1** but for fully floating caliper with two pistons or for fixed caliper with four pistons.

Technical Data:

	KL-0111-1	KL-0111-2
Overall length max.	180 mm	180 mm
Overall height	115 mm	115 mm
Useful height of jaws	65 mm	65 mm
Width of jaws	50 mm	100 mm
Working travel min.	13 mm	13 mm
Working travel max.	70 mm	70 mm
Weight	940 g	1340 g

KL-0113-20 K Press/Wind-back Tool
(5 Adaptors)

Suitable for: **VW-Audi, BMW, Ford, Honda, Jaguar, Mazda, Mitsubishi, Nissan, Peugeot, Rover, Seat, Škoda, Toyota etc.**
To wind-back the piston in floating calipers with integrated Parking Brake adjustment (right-handed rotation).
Before new Brake Pads are fitted it is necessary to wind-back the caliper piston to its „nil/new“ position. The Tool Set consists of Tool Body, 5 Adaptors, Support Plate and Plastic Storage case.

Accessories:

KL-0113-2010 Adaptor 3/8" to Ø7
Adaptor to allow the use of **KL-0112-1/-2** Caliper Piston Adaptors.

KL-0112-0008 Adaptor for Citroën XM / BX
To re-position the caliper piston on Citroën XM / BX.

KL-0112-0013 Adaptor for Citroën C5
To re-position the caliper piston on Citroën C5.

Note: On the Citroën C5, the left side calipers have a ***left-handed thread*** and the calipers on the right have a ***right-handed thread.*** The adaptor **KL-0113-2010** is required.

KL-0112-3 Press/Wind-back Tool

To wind-back the piston in floating calipers with integrated Parking Brake adjustment.
Suitable for **VW-Audi, Ford, Nissan, Subaru, Mazda, Toyota, Mitsubishi**, etc.
The caliper-piston is wound back by the Spindle and the Toggle.
The Tool is delivered in a Plastic Storage Case.

Accessories:

KL-0112-3010 Adaptor Ø7
Adaptor to allow the use of **KL-0112-1/-2** Caliper Piston Adaptors.

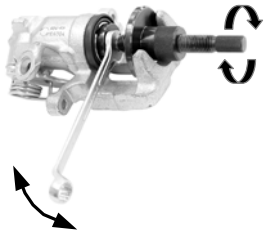
KL-0112-0013 Adaptor for Citroën C5
To re-position the caliper piston on Citroën C5.

Note: On the Citroën C5, the left side calipers have a ***left-handed thread*** and the calipers on the right have a ***right-handed thread***. The adaptor **KL-0112-3010** is required.

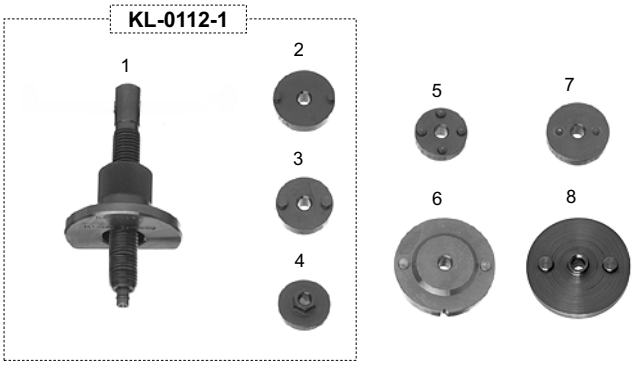
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KL-0112-1



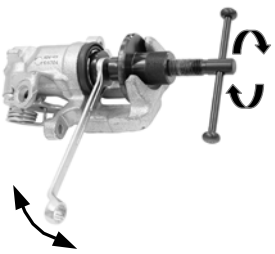


Usable for ***left***-handed thread and ***right***-handed thread.

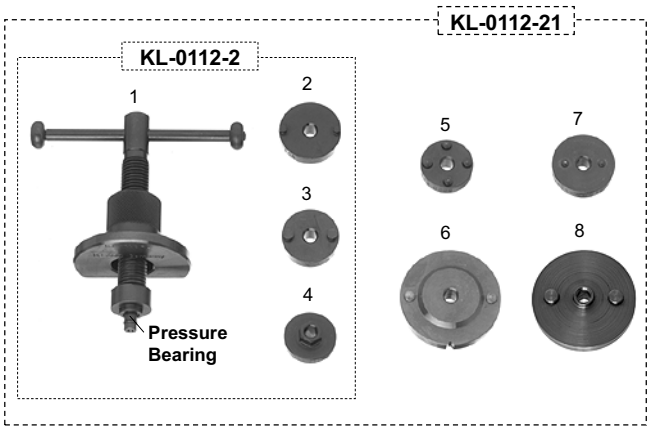


KL-0112-2





Usable for ***left***-handed thread and ***right***-handed thread.



KL-0112-1 Pressure and Wind Back Tool

Universal pressure and wind back tool for pressing back of caliper pistons in floating calipers both equipped with handbrake mechanism or without.

Suitable for **Audi, Citroën, Fiat, Ford, Honda, Mazda, Mitsubishi, Nissan, Opel, Peugeot, Renault, Seat, Subaru, Toyota, VW**, etc.

The piston is moved back by turning the hexagon on the thrust block.

Spare Parts:

Pos.	Part No.	Description
	KL-0112-1	**Pressure and Wind Back Tool incl. 2 adaptors**
	consists of:	
1	KL-0112-1000	Pressure and Wind Back Tool
2	KL-0112-0005	Adaptor size 2
3	KL-0112-0007	Adaptor size 1
	KL-0112-0020	Storage case empty

	Accessories:	
4	KL-0112-0008	Adaptor Size 8 ⇒ (Usage see KL-0112-2)
5	KL-0112-0009	Adaptor Size 9 ⇒ (Usage see KL-0112-2)
6	KL-0112-0006	Adaptor Size 6 ⇒ (Usage see KL-0112-2)
7	KL-0112-0010	Adaptor Size 10 ⇒ (Usage see KL-0112-2)
8	KL-0112-0013	Adaptor Size 13 ⇒ (Usage see KL-0112-2)

Technical Data:

Working Travel max.:.....65 mm Weight: ..... 822 g

KL-0112-2 Pressure and Wind Back Tool

Universal pressure and wind back tool for pressing back of caliper pistons in floating calipers both equipped with handbrake mechanism or without.

Suitable for **Audi, Citroën, Fiat, Ford, Honda, Mazda, Mitsubishi, Nissan, Opel, Peugeot, Renault, Seat, Subaru, Toyota, VW**, etc.

Spare Part List for our best-selling Brake Tool**:**

Pos.	Part No.	Description
	KL-0112-2	**Pressure and Wind Back Tool incl. case**
	consists of:	
1	KL-0112-2000	Pressure and Wind Back Tool
2	KL-0112-0005	Adaptor size 2 ⇒ e.g. Audi (A3; A4; A6; A8; V8), Ford (Mondeo II ; Focus), Lancia (Delta; Kappa; Ulysse), Mazda (323; 626; 929, Premacy), Mitsubishi (Carisma; Colt; Space Star; Lancer; Galant), Nissan (Bluebird; Sunny), Opel (Bosch floating caliper; Astra; Zafira), Peugeot (307 CC;405), Renault (Master), Rover (825), Seat (Alhambra; Leon; Toledo II), Toyota (Corolla; MR2), VW (Passat; Golf; Sharan; Touran; T4; T5), etc.
3	KL-0112-0007	Adaptor size 1 ⇒ e.g. Fiat (Barchetta; Marea; Brava; Bravo; Croma; Coupé; Tipo); Lancia (Delta; Prisma; Integrale), Mazda (6), Renault (R5; R11; R19 GTX), Subaru (1600), etc.
	KL-0112-0020	Storage case empty

Pos.	Part No.	Description
	KL-0112-21	**Pressure and Wind Back Tool incl. 7 adaptors**
	consists of:	
	KL-0112-2	Pressure and Wind Back Tool incl. case
4	KL-0112-0008	Adaptor size 8 ⇒ e.g. Citroën (BX; XM), Peugeot (205; 309), Renault (Alpine; R19), etc.
5	KL-0112-0009	Adaptor size 9 ⇒ e.g. Honda (Accord; CRX; Prelude), etc.
6	KL-0112-0006	Adapter Gr.6 ⇒ z.B. Alfa Romeo (Alfa 164), Audi (80; 90; 100; 200), etc.
7	KL-0112-0010	Adaptor size10 ⇒ e.g. Ford (C Max ; Focus), Lancia (Delta 1.9 TD), Mazda (3), Mini (Mini One), Nissan (Primera P12), Opel (Astra G; Vectra C; Vectra C Caravan; Signum; Meriva; Zafira), Renault (R21; Laguna; Espace), etc.
8	KL-0112-0013	Adaptor size 13 ⇒ e.g. Citroën (C5), etc.

Technical Data:

	KL-0112-2	KL-0112-21
Overall length (without Adaptor)	120 mm	120 mm
Max. Working travel	65 mm	65 mm
Weight	0,9 kg	1,1 kg
Case (L×W×H) [mm]	235 × 220 × 76	235 × 220 × 76

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KL-4041-361K



KL-4041-361K Torx® - Special Socket Set

Special socket inserts, reinforced design in a plastic case. Useable for the repair of axles and engines.

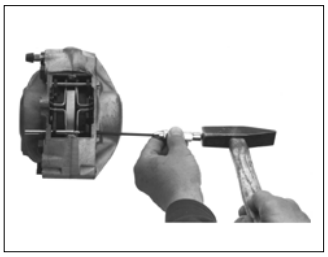
Drive: ..... 1/2"☐ Length:.....78 mm

Special Sockets

Part No.	Size	Part No.	Size
KL-4041-3630	T30	KL-4041-3655	T55
KL-4041-3640	T40	KL-4041-3660	T60
KL-4041-3645	T45	KL-4041-3670	T70
KL-4041-3650	T50		

KL-0116-3





KL-0116-3 Special Drift Set

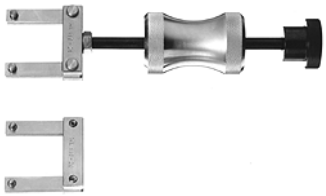
For removal of brake pad retaining pins.

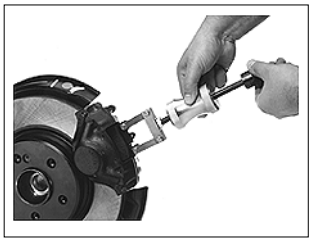
The drift **KL-0116-0002** has a pilot centering base specifically for spring-type straight pins on **Opel/Vauxhall** etc.

Part No.	
KL-0116 Drift Set	
consists of:	
KL-0116-0001,	Ø 4 mm
KL-0116-0002,	Ø 6 mm
Length:	165 mm
Weight:	166 g

Part No.	
KL-0116-3 Drift Set	
consists of:	
KL-0116-0001,	Ø 4 mm
KL-0116-0002,	Ø 6 mm
KL-0116-0003,	Ø 5 mm
Length:	165 mm
Weight:	247 g

KL-0116-2





KL-0116-2 Slide Hammer

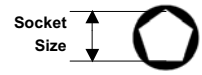
For stubborn brake pads.

KL-0116-2 consists of slide hammer, jaw **KL-0116-20** with 4,0 mm pins and jaw **KL-0116-21** with 5,9 mm pins.

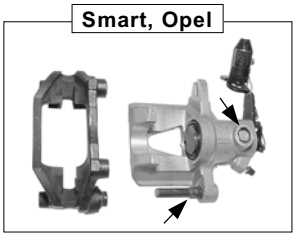
Length:.....250 mm Weight:.....1.6 kg

KL-0461-10





Smart, Opel



KL-0461-10 Pentagon Socket

Suitable for the **lower brake caliper retaining screw** on the **Smart**.

For removal and installation of the front-axle brake calipers.

Suitable for: **Rear Brake Caliper on Opel Astra G, Zafira.**

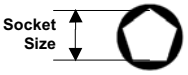
To remove and replace the guide pins when these are corroded and the floating caliper is no longer free to self-centre. Also required to remove the caliper piston.

Socket Size:.....14 mm Drive: ..... ½"☐

KL-1460-1

Citroën, Peugeot, Renault





KL-1460-1 Pentagon Socket

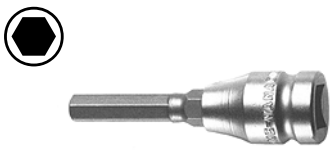
To dismount the brake caliper on **Citroën**, **Peugeot** and **Renault**.

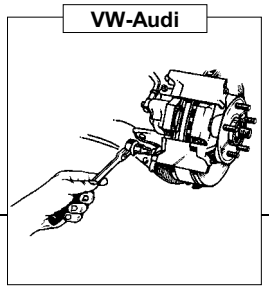
Socket Size:.....19 mm Drive: ..... ½"☐

Note: Further sockets and special sockets see chapter 10.

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KL-4021-3107





KL-4021-3307



KL-0112-0011



KL-0112-0012





KL-0192-7





KL-0049-100



KL-0049-1005



KL-0049-1006





KL-4021-3107 Special Socket 7 mm

Special Hex Socket.

Suitable for:

- **shock absorber-piston rod VW-Audi, etc.**
- **brake caliper mounting bolt VW-Audi, etc.**

Length total: ..... 100 mm Weight: ..... 100 g
Drive: ..... ½"□

KL-4021-3307 Special Socket 7 mm

Special Hex Socket.

Suitable for:

- **shock absorber-piston rod VW-Audi, etc.**
- **brake caliper mounting bolt VW-Audi, etc.**

Length total: ..... 140 mm Weight: ..... 125 g
Drive: ..... ½"□

KL-0112-0011 Adaptor

To press the brake caliper spring (in conjunction with **KL-0112-2**) when repairing the caliper on **VW-Audi** cars from 1987 onwards.

KL-0112-0012 Adaptor

To press the brake caliper spring (in conjunction with **KL-0112-2**) when repairing the caliper on **VW-Audi** cars up to 1987.

KL-0192-7 Circlip Pliers angled 90°

For brake calipers and transmission, angled 90°.

Length: ..... 190 mm Length of Flange ..... 60 mm

KL-0049-100 Slide Hammer Basic Tool

When repairing the brake caliper, stuck spindles can be extracted with the basic slide hammer tool **KL-0049-100** in conjunction with the adaptors **KL-0049-1005** or **KL-0049-1006**.

KL-0049-1005 Adaptor

For Brake Caliper Spindle.

Application: For Brake Calipers on the rear axle of **VW-Audi** cars up to 1987 in conjunction with Tool **KL-0049-100**.

KL-0049-1006 Adaptor

For Brake Caliper Spindle.

Application: For Brake Calipers on the rear axle of **VW-Audi** cars from 1987 onwards in conjunction with Tool **KL-0049-100**.

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KL-0114-7



KL-0114-8



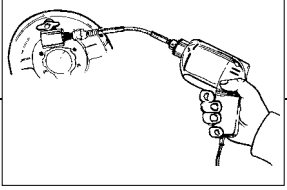
KL-0114-81



KL-0199-10



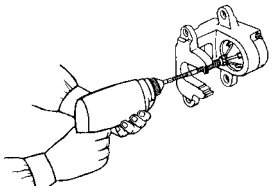
Brake Cylinder cleaning



KL-0199-11



Brake Caliper Cylinder cleaning

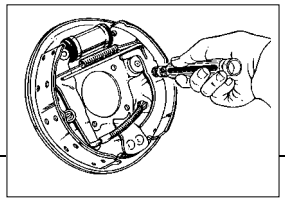


KL-0199-13



KL-0114-4



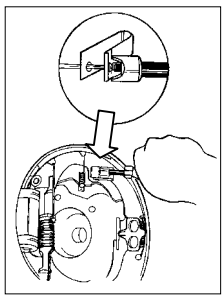


KL-0114-41



KL-0114-42





KL-0114-7 Caliper File

For cleaning the caliper before installing the brake pads.
Length:.....220 mm Weight:.....85 g

KL-0114-8 Caliper Brush (Steel)

For cleaning the caliper before installing the brake pads.
Length:.....220 mm Weight:.....60 g

KL-0114-81 Brass-Wire Brush (narrow)

For cleaning sensitive control units, contacts, engine and brake parts, etc.
Width: .....11,7 mm Length: .....220 mm
Weight: .....60 g

KL-0199-10 Hone Tool Ø 18-63 (Twin-Arm)

Technical Data:
Cylinder-Ø:.....18 - 63 mm Segment Length: ....28 mm
Replacement Stones: ... 2 Stone Weight:.....85 g

KL-0199-101 Replacement Stones Set (2 Stone)
Length:.....28 mm Weight:.....28 g

KL-0199-11 Hone Tool Ø 22-50 (Triple-Arm)

Technical Data:
Cylinder-Ø:.....20 - 60 mm Segment Length: ....28 mm
Replacement Stones: ... 3 Stone Weight:.....85 g

KL-0199-111 Replacement Stones Set (3 Stone)
Length:.....28 mm Weight:.....28 g

KL-0199-13 Hone Tool Ø 38-79 (Triple-Arm)

Technical Data:
Cylinder-Ø:.....38 - 79 mm Segment Length: ....25 mm
Replacement Stones: ... 3 Stone Weight:.....85 g

KL-0199-131 Replacement Stones Set "old version" (3 Stone)
Length:..... 4,5 x 24 mm Weight:.....28 g

KL-0199-132 Replacement Stones Set (3 Stone)
Length:..... 5 x 19 mm Weight:.....28 g

KL-0114-4 Brake Spring Tool

For quick, easy and clean removal and installation of the spring plate of the retaining spring of drum brakes.
Length:.....130 mm Weight:.....90 g

KL-0114-41 Brake Spring Tool

The tool will remove and replace the anti-squeal spring between the brake-shoe and the back-plate on drum-brakes. The spring is quickly, cleanly and safely removed and replaced.
For springs Ø of 13,5 mm -23 mm.
Length:.....155 mm Weight:.....95 g

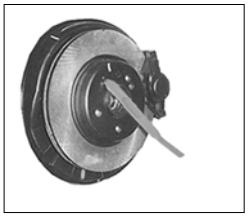
KL-0114-42 Brake Spring Tool

Suitable for European vehicles with brake-shoe retaining clips.
To release the retaining clip, insert the tool tips into the groove, and rotate the handle 90° in order to release the clip from the pin.
Length:.....155 mm Weight:.....115 g

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KL-0114-5



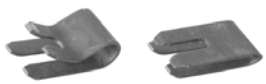


KL-0114-43

Mercedes A-Class



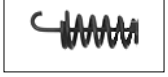


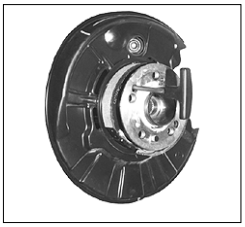


KL-0314-1



Retaining Spring





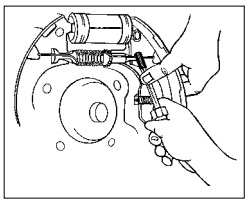
KL-0114-2





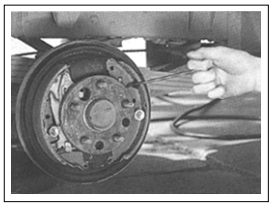
KL-0114-9





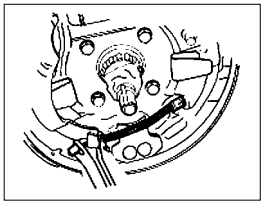
KL-0114-21





KL-0114-3





KL-0114-5 Adjusting Tool

For drum brakes with eccentric adjusters.

Length: ..... 155 mm Weight: ..... 50 g

KL-0114-43 Brake Spring-Pliers

Suitable for Mercedes A-Class (e.g. A140), Citroen, Renault, Peugeot with Lucas drum brake on the rear axle.

To remove or install the brake shoes, the brake shoe retaining spring must be pre-tensioned with pliers **KL-0114-43**.

Both versions of the brake shoe retaining spring (see picture) can be tensioned with pliers **KL-0114-43**.

KL-0314-1 Brake Spring Tool

For the removal and replacement of the handbrake retaining spring on **Mercedes**-vehicles.

Applicable for conical and cylindrical retaining springs.

Length: ..... 145 mm Weight: ..... 110 g

KL-0114-2 Brake Spring Pliers

With off-set jaws.

For riveted and bonded brake linings.

Length: ..... 317 mm Weight: ..... 340 g

KL-0114-9 Brake Spring Tool

For removal and installation of retaining springs on such drum brakes where the brake pads are not fixed onto the anchor plate. Therefore the retaining spring will be inserted into the hook head of the tool and will be tightened by winding the handle. The installation happens by pulling the retaining spring with the tool into the correct position.

Length: ..... 220 mm Weight: 85g

KL-0114-21 Brake Spring Assembly Hook

To remove and replace the hold-back spring on drum brakes.

Length: ..... 30 mm Weight: ..... 100 g

KL-0114-3 Brake Cable Spring Pliers

To remove and replace the Hand Brake Cable. The Pliers compress the return springs so far that the cable may be easily removed and replaced.

Suitable for **VW, Audi, BMW, Citroën, Nissan, Peugeot, Renault, Rover, Seat**, etc.

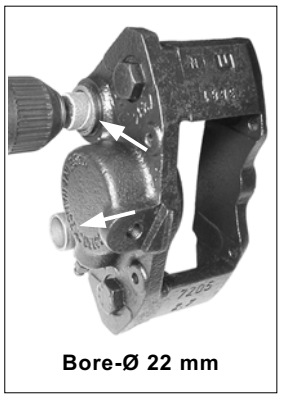
Length: ..... 225 mm Weight: ..... 175 g

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KL-0114-990



The set includes 50 Abrasive Sleeves of each size.



Bore-Ø 22 mm



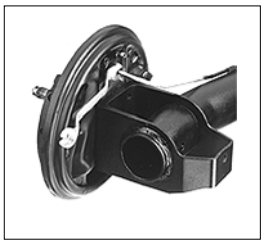
Bore-Ø 18 mm



Bore-Ø 16 mm

KL-0114-6





KL-0114-13



KL-0114-990 Set of Holders
with Abrasive Sleeves

Consists of: **KL-0114-91, KL-0114-92 and KL-0114-93.**

The Holder with the appropriate Abrasive Sleeve is ideal for quick and easy removal of rust and corrosion and dirt from inner bores. eg: bores in floating brake calipers, or mounting bore for ABS Sensors, etc.

Drive can be taken from a hand drill, either directly or with the aid of a flexible shaft.

KL-0114-91 Holder with 50 Abrasive Sleeves for Ø 16 mm

Suitable for: Brake Calipers on VW Golf, Passat, Polo, etc. with Ø 16mm bores.

consists of:

Part Number:	Description:	Qty
KL-0114-910	Holder depth 25mm; Shaft-Ø6mm; for Bore Ø16mm	1
KL-0114-911	Abrasive Sleeve set 80 grit (50 pieces)	1

Technical Data:

Shaft Ø: ..... 6 mm Holder depth:.....25 mm

KL-0114-92 Holder with 50 Abrasive Sleeves for Ø 18 mm

Suitable for: ABS Sensor mounting on VW-Audi, BMW, etc. with Ø 18 mm bore

consists of:

Part Number:	Description:	Qty
KL-0114-920	Holder depth 30mm; Shaft-Ø6mm; for Bore Ø18mm	1
KL-0114-921	Abrasive Sleeve set 80 grit (50 pieces)	1

Technical Data:

Shaft Ø: ..... 6 mm Holder depth:.....30 mm

KL-0114-93 Holder with 50 Abrasive Sleeves for Ø 22 mm

To fit floating brake calipers or to de-rust the brake pad contact surface on Opel vehicles. (e.g. Astra G), etc. with Bore-Ø 22 cm.

consists of:

Part Number:	Description:	Qty
KL-0114-930	Holder depth 25mm; Shaft-Ø6mm; for Bore Ø22mm	1
KL-0114-931	Abrasive Sleeve set 80 grit (50 pieces)	1

Technical Data:

Shaft Ø: ..... 6 mm Holder depth:.....25 mm

KL-0114-6 Brake Pipe Spanner

Size 10 x 11 mm hex, angled and slotted, forged design.

Length:...175 mm Weight: .....82 g

KL-0114-13 Deep Ring Spanner Set (6-point)

For brake bleeder valve,

consists of:

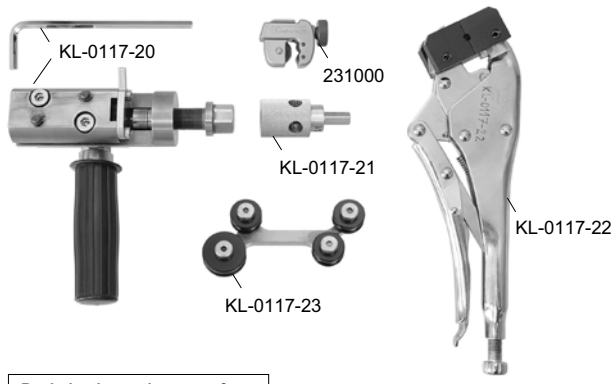
Part No.	Wrench Size
KL-0114-131	7 × 7 mm hex
KL-0114-132	8 × 8 mm hex
KL-0114-133	9 × 9 mm hex

Part No.	Wrench Size
KL-0114-134	10 × 10 mm hex
KL-0114-135	11 × 11 mm hex

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KL-0117-2 K

VW-Audi, Seat, Škoda



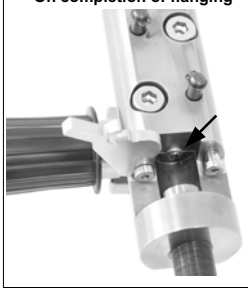
Peel plastic coating away from pipe



Shape the flanged end



On completion of flanging



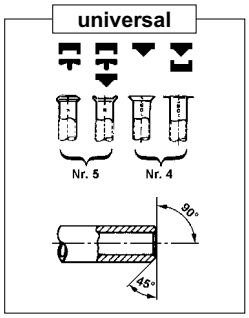
Flanged end acc. to DIN standard



Note:
The Brake Pipe Beading Tool Set is being supplied in a plastic case.

KL-0070





234001



KL-0117-2 K Brake Pipe Beading Tool Set (Pat.)

For beading the ends of the new plastic-coated brake lines used by **VW, Audi, Seat and Skoda** with an overall line diameter of 5.25 mm (plastic coating max. 0.5 mm thick).

This tool is specially designed to permit the plastic-coated brake line to be worked on in the vice, or when repairing a section of brake line on the vehicle (e.g. following damage in a rear-end collision).

The power train (engine/gearbox) no longer has to be removed if this tool set is used.

Application:

1. Cut off the brake pipe.
2. Peel away the plastic coating for a certain length and deburr the brake pipe.
3. Press flanging head of pattern F (acc. to DIN standard) against the brake pipe.
4. If necessary, bend the brake pipe to the correct configuration.

Advantages:

⇒ This tool set ensures clean removal of the plastic coating and deburring of the pipe
⇒ The brake pipe is held securely in the flanging tool without damaging the plastic coating or distorting the pipe
⇒ Flanged ends are produced accurately according to German Industrial Standard DIN pattern F
⇒ Up to 7 hours of work time can be saved.

Contents:

KL-0117-20 Brake Pipe Beading Tool (incl. 6 mm angled screwdriver)
KL-0117-21 Brake Pipe- peeling tool
KL-0117-22 Grippers with plastic jaws
KL-0117-23 Pipe bending tool
231000 'mini-quick' pipe cutter
KL-0117-29 Plastic case

KL-0070 Dual Beading Press

For all brake pipes with Plastic Sheathing 0,10 mm (olive-green colour) overall Ø 4,85 mm and pipes without plastic sheathing with Ø 4,75 / 5 / 6 and 9 mm.

The special profile of the Chuck jaws prevents any damage to the protective plastic coating.

Note: The KL-0070 double flanging press is not suitable for plastic-coated brake lines with a max. diameter of 5.25 mm (see KL-0117-2 above).

Weight:..... 3,3 kg

234001 Dual Beading Tool

CODE 4505530

For 4.75 - 10 mm diameter metric-size pipes, complete in sheet steel case, for brake lines, refrigerant lines, hydraulic and pneumatic pipes with a wall thickness between 0.7 and 1.0 mm. GTW tempered cast body, stove-enamelled in blue, phosphatised steel jaws.

Also available as a set for metric size pipes and inch size pipes (No. 234 013) or for inch-size pipes only (No. 234 002).

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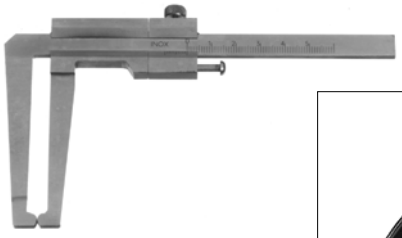
231000



241500



KL-0140-33





KL-0128-31



KL-0140-41 **KL-0140-40**



Note: The Frame Micrometers **KL-0140-40** and **KL-0140-41** are delivered in storage boxes.

231000 Miniature Pipe Cutter MINI-QUICK
CODE 4504560

With tool body in pressure-cast zinc, stove enamelled blue, cutting wheel in chrome-alloyed stainless steel.
For Ø of 4 - 16 mm O.D. tubing.
Especially suitable for barely-accessible places.

241500 Universal Pipe Bending Pliers
CODE 1442007

Bends up to 90°, for copper pipes DIN EN 1057 and all non-ferrous metal pipes as well as thin-walled precision steel pipes and brake lines from 4.75 to 10 mm Ø, (two turnable formers 4.75-6.0 and 8.0-10.0 mm), bright nickel-plated, handles PVC coated.

KL-0140-33 Slide Caliper for Brake Disc

To measure the thickness of installed brake-disks. The tool is hardened and contains a locking screw.
Description: stainless-steel

Range: .....50 mm
Vernier .....1/10 mm
Jaw length: .....75 mm
Weight: ..... 110 g

KL-0128-31 Dial Gauge Stands with Dial Indicator

Consists of **KL-0128-1** and **KL-0128-3**.

- To measure the wobble of the brake disc.
- For adjusting the engine and transmission

Strong rods of tool-steel, with fine adjustment for dial-gauge-clamp, prismatic magnetic base.

KL-0128-1 Dial Indicator Ø 58 mm

Description: Stem and spindle stainless steel, accuracy to DIN 878-A.

Reading: .....0,01 mm
Housing -Ø: .....58 mm
Measuring Range: ...10 mm
Stem -Ø: .....8 mm
Set nut revolution by 360°:.....1 mm

KL-0128-3 Dial Gauge Stand without Dial Indicator

For further Information, and Accessories see Chapter 10.

Frame Micrometers

With ratchet and clamping-ring, enclosed thread, spindle hardened and adjustable, with hand guard insulating pads, reading parts chrome plated, with check-gauge. Description: Chrome-plated.

KL-0140-40 Frame Micrometer

Range: ..... 0-25 mm
Weight: .....350 g
Pitch: .....½ mm

KL-0140-41 Frame Micrometer

Range: ..... 25-50 mm
Weight: .....500 g
Pitch: .....½ mm

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KL-0140-36

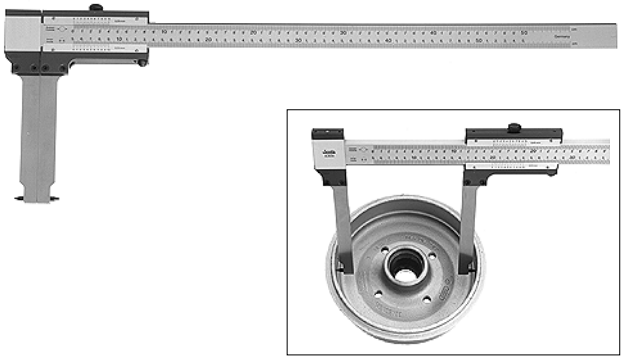


KL-0140-36 Slide Caliper Digital

Open slide, hardened, with cross-points and depth gauge. Description: stainless steel.

Range:..... 155 mm
Jaw length:..... 40 mm
Vernier:..... 0,01 mm
Weight:..... 200 g

KL-0140-32



KL-0140-32 Slide Caliper for Brake Drum

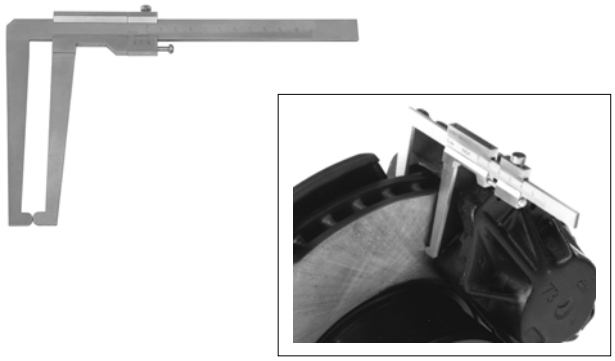
Measuring-surfaces stainless steel, rule and slide produced of aluminium-profile, open slide, fixing-screw, vernier parallax free reading.

Range:..... 500 mm
Jaw length:..... 250 mm
Vernier:..... 1/20 mm + 1/128"
Weight:..... 1200 g

Accessory:

KL-0140-3201 Wooden Case for Slide Caliper

KL-0140-38



KL-0140-38 Slide Caliper for Brake Plates

To measure the thickness of installed brake-disks. The tool is hardened and contains a locking screw.

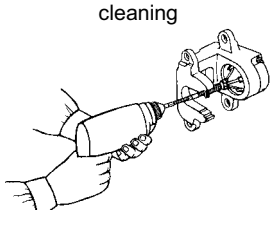
Description: stainless steel.

Range:..... 100 mm
Jaw length..... 120 mm
Vernier:..... 1/10 mm
Weight:..... 240 g

KL-0199-13



Brake Caliper Cylinder cleaning



KL-0199-13 Hone Tool Ø 38-79 (Triple-Arm)

Technical Data:

Cylinder-Ø:..... 38 - 79 mm
Segment Length:..... 25 mm
Hone:..... 3 pieces
Weight:..... 85 g

KL-0199-131 Replacement Stones Set (3 Stone)

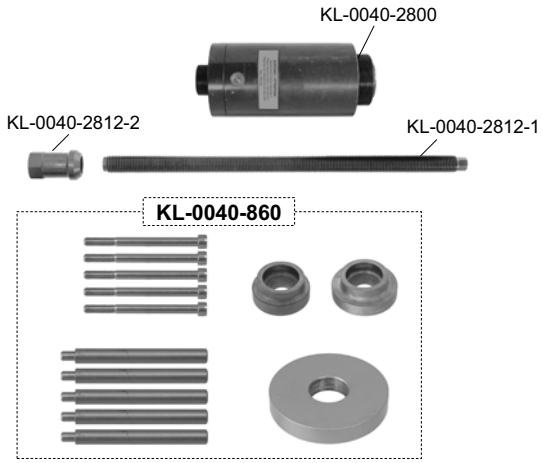
Length:..... 25 mm
Weight:..... 28 g

5

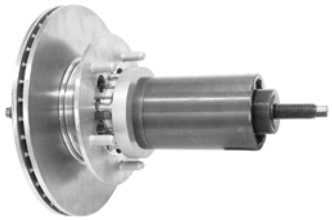
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KL-0040-86

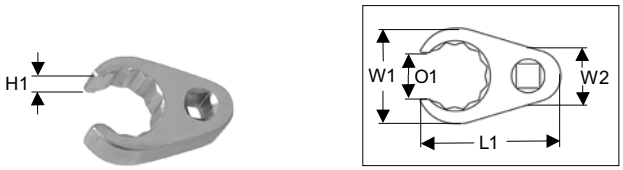
Ford Transit



Wheel Bearing Extraction, Brake Disc removal



KL-4072-301



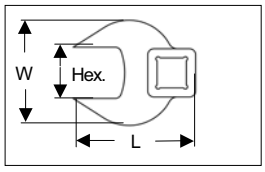
1/2"

Note: Further Spanners see Chapter 10.

KL-4417-900

3/8"





KL-0040-86 Wheel Bearing Tool Set
with Hydraulic Cylinder (28 t.)

Suitable for Ford Transit 2002-onwards.

To renew the brake disc or wheel bearing, the wheel hub must be pulled out of the wheel bearing housing together with the hub and the brake disc.

The wheel bearing can be removed or installed within a few minutes, without removing the suspension strut.

KL-0040-860 Wheel Bearing Tool Set (without Hydraulic Cylinder)

As **KL-0040-86.**

If the Hydraulic Cylinder (28 t) **KL-0040-2800**, the spindle **KL-0040-2812-1** and the clamping nut **KL-0040-2812-2** are already available.

Contents:

Part No.	Description	Qty.
KL-0040-860	**Wheel Bearing Set (without Hydraulic Cylinder)**	**1**
consists of:		
KL-0040-8501	Pressure ring	1
KL-0040-8236-4	Screw M10 x 120	5
KL-0040-8503	Drift	5
KL-0040-8601	Pressure disc Ø 77 mm	1
KL-0040-8602	Pressure disc Ø 68 mm	1

KL-4072-301 Open Ring Spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened.

Drive: ..... 1/2" ☐

consists of:

Part-No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Openin g [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	15,5 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

KL-4417-900 Crow Foot Spanner Set

Special Chrome Vanadium Steel

Matt chrome finish.

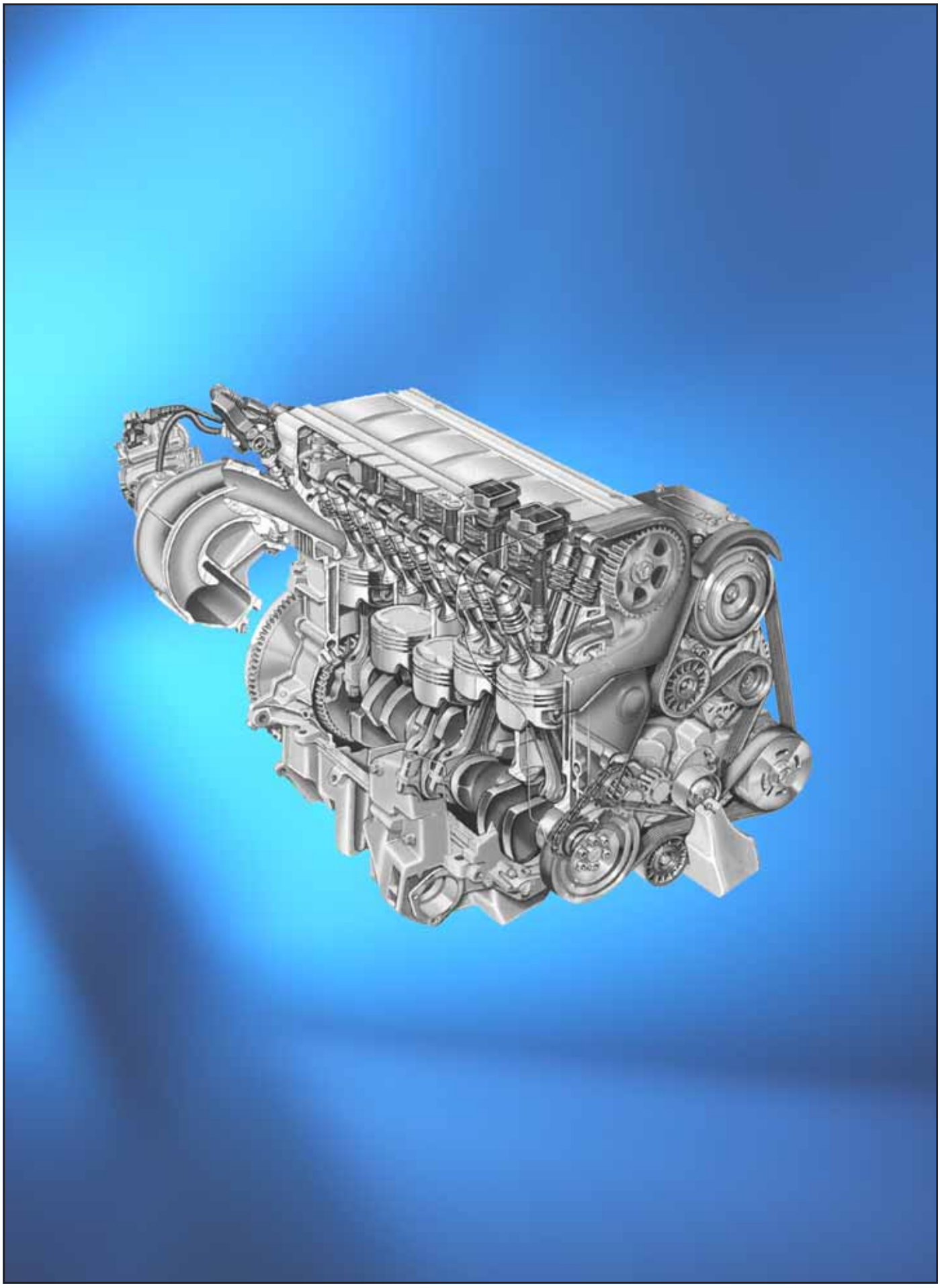
Drive: ..... 3/8"☐

Specially designed to loosen and tighten nuts and bolts in confined spaces.

consists of:

Part No.	Description	Socket size	Width (W)	Length (L)	Weight (g)
KL-4417-16	Crow foot spanner	16	34 mm	40 mm	40 g
KL-4417-17	Crow foot spanner	17	35 mm	42 mm	50 g
KL-4417-18	Crow foot spanner	18	37 mm	45 mm	60 g
KL-4417-19	Crow foot spanner	19	41 mm	48 mm	70 g
KL-4417-21	Crow foot spanner	21	43 mm	51 mm	80 g

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Chapter 6 overview

Cooling System (6.1-..)



Fuel System (6.2-..)



Cylinder Head (6.3-..)



Valve Train (6.4-..)



Ancillary Components (6.5-..)



Oil-System (6.7-..)



Engine (6.6-..)



Exhaust System (6.8-..)



6

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Chapter 6 Overview

6.1 Cooling System
Page 6.1-01 - 6.1-05

6.2 Fuel System
Page 6.2-01 - 6.2-06

6.3 Cylinder Head
Page 6.3-01 - 6.3-30

6.4 Valve Train
Page 6.4-01 - 6.4-40

Vehicle manufacturer specifical pages e.g:

Universal	⇒	Page 6.4-02 -6.4-05	Opel	⇒	Page 6.4-23 - 6.4-28
VW-Audi, Seat, Skoda	⇒	Page 6.4-06 - 6.4-13	french / jap. vehicles	⇒	Page 6.4-28 - 6.4-33
Fiat, Alfa Romeo, Lancia	⇒	Page 6.4-14 - 6.4-19	BMW	⇒	Page 6.4-34 - 6.4-36
Ford	⇒	Page 6.4-20 - 6.4-21	Mercedes	⇒	Page 6.4-35 - 6.4-40

6.5 Ancillary Components
Page 6.5-01 - 6.5-08

6.6 Engine
Page 6.6-01 - 6.6-04

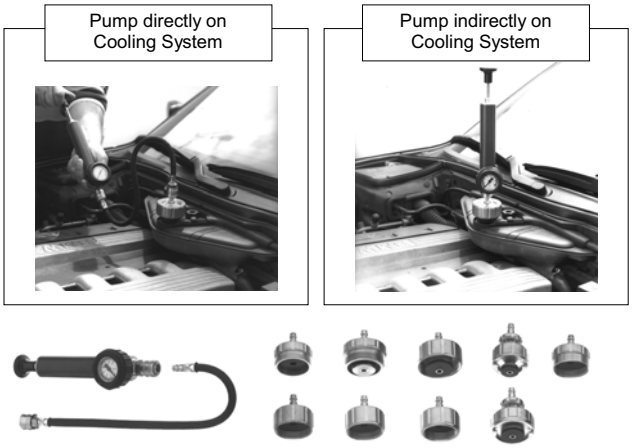
6.7 Oil-System
Page 6.7-01 - 6.7-08

6.8 Exhaust-System
Page 6.8-01 - 6.8-06

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KL-0124-60





Contents:

KL-0124-60 Cooling System Pressure Tester (Universal)

consists of:

Part No.	Description
KL-0124-600	Pump
KL-0124-601	Flexible Tube
KL-0124-620	Adaptor No. 20 Universal Bajonet Joint Ø 60
KL-0124-621	Adaptor No.21 M48×3
KL-0124-622	Adaptor No.22 M44×3
KL-0124-624	Adaptor No.24 M52×3
KL-0124-625	Adaptor No.25 M52×4
KL-0124-626	Adaptor No.26 Jap Vehicles
KL-0124-627	Adaptor No. 27 M54×4
KL-0124-633	Adaptor No.33 S48×3
KL-0124-634	Adaptor No.34 Tr63×3
KL-0124-6090	Case empty

KL-0124-602 Pump with the Tube Adaptor



Spare Parts

KL-0124-6009 Set for repairing the pump
KL-0124-6001 Manometer for rubber cap

Note: More sets for HGV's see HGV Chapter-Sites.

KL-0124-60 Cooling System Pressure Tester

The Pressure Tester KL-0124-60 is made from metal. It consists of a quick clutch, a pressure relief valve and a flexible tube. This tool was developed to control the sealing of the cooling systems on vehicles. The precision manometer is protected by a rubber cap. There is a wide range of adaptors for different radiators and compensating tanks.

Advantages:

- Applicable in the long run and with a high temperature while the pump and the adaptor are made of metal (brass).
- There is also a high precision of pump and adaptor.
- A safety valve is included.
- It is possible to put the pump on the cooling system directly or otherwise to connect the pump to the cooling system with the flexible tube.

Technical Data:

- Max pressure of the hand pump:..... (36 psi)..... 2,5 bar
- Weight of the pump with tube:.....1,1 kg
- Weight **KL-0124-60** complete: .....7,9 kg
- Weight of the empty case:.....2,5 kg

Other Sets for vehicles

KL-0124-714 Cooling System Pressure Tester for BMW
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 25, 25 and 29

KL-0124-716 Cooling System Pressure Tester for Peugeot/Citroën/Fiat
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20 and 22.

KL-0124-722 Cooling System Pressure Tester for Nissan/Subaru
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20 and 26.

KL-0124-726 Cooling System Pressure Tester for Ford
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 24, 26, 32 and 33.

KL-0124-728 Cooling System Pressure Tester for Honda
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 22 and 26.

KL-0124-744 Cooling System Pressure Tester for Mazda
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 24, 26 and 30.

KL-0124-746 Cooling System Pressure Tester for Mercedes
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 36, 37 and 38.

KL-0124-750 Cooling System Pressure Tester for Mitsubishi/ Toyota
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 26 and 30.

KL-0124-754 Cooling System Pressure Tester for Opel
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 24, 26, 31 and 38.

KL-0124-758 Cooling System Pressure Tester for Porsche
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20 and 21.

KL-0124-760 Cooling System Pressure Tester for Renault
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 22 and 23.

KL-0124-762 Cooling System Pressure Tester for Rover
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 22, 24, 25 and 26.

KL-0124-764 Cooling System Pressure Tester for Saab
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 23 and 24.

KL-0124-768 Cooling System Pressure Tester for Seat
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20 and 27.

KL-0124-780 Cooling System Pressure Tester for VW / Audi
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 20, 21, 27, 33 and 34.

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Adaptor Application List by Part No:

The Part No. of individual Adaptors is given in Column 1.

No.	Part No.	Manufacturer	Model or Type
10	KL-0124-610	MAN, Krupp	General
11	KL-0124-611	Mercedes	HGV
		Mini	Cooper
12	KL-0124-612	Ford	Australian, Explorer
13	KL-0124-613	Scania	General (e.g. 93, 113, 143)
		Volvo	HGV
14	KL-0124-614	Scania	General
16	KL-0124-616	Mercedes	Bus, Sprinter CDI
17	KL-0124-617	Scania	HGV Type 94, 114, 124, 144
18	KL-0124-618	DAF	HGV '92 and '95
19	KL-0124-619	Büssing	General
		Fendt	General
		Iveco	General
		MAN, Krupp	General
		Mercedes	HGV, Unimog
		Scania	General
20	KL-0124-620	Alfa Romeo	General
		Audi	General
		Autobianchi	General
		BMW	Old Models
		Chrysler	185 hp engines '91-onwards
		Citroën	XM, Evasion, Xantia
		DAF	General
		Daihatsu	General
		Fendt	General
		Ferrari	General
		Fiat	General
		Ford	General (e.g. Scorpio)
		Honda	General
		Isuzu	General
		Iveco	General
		Jaguar	General
		Kia	General
		Lamborghini	General
		Lancia	General
		Mercedes	Cars general
		Mercedes	Vito
		Mercedes	HGV; Bus
		Mercedes	SLK, SLC, CLK
		Mini	Cooper
		Mitsubishi	General
		Nissan	General
		Opel	Omega, '87
		Peugeot	General
		Porsche	General
		Rover	General (e.g. Mini)
		Saab	General
		Scania	General
		Seat	General
		Subaru	General
		Suzuki	General
		Toyota	General
		Triumph	General
		VW	General (e.g. Polo '96, Passat '87-'96, T4, Transporter '89 -onwards)
21	KL-0124-621	Audi	General (e.g. A4 up to '96)
		Porsche	Boxster
		VW	Golf II
22	KL-0124-622	Alfa Romeo	General
		Chrysler	171 hp engine '89,
		Dacia	Logan
		Renault	General (e.g. Safrane, Laguna)
		Citroën	General
		Peugeot	General (e.g. 206, 307, 407)
		Fiat	General
		Honda	Concerto

No.	Part No.	Manufacturer	Model or Type
22	KL-0124-622	Rover	Metro, 115, 200, 400
		Simca	Generell
23	KL-0124-623	Alfa Romeo	164
		Mini	Cooper S
		Renault	Espace
		Saab	General (e.g. 900 and 9000 up to '93)
		Volvo	General (e.g. 850, 960)
		Volvo	HGV FH 12
24	KL-0124-624	Daewoo	General
		Ford	General (e.g. Scorpio, Transit, Ka '96-onwards, Mondeo '94-onwards)
		Jaguar	XJ4 / XJ6
		Mazda	121 Header Tank
		Opel	General (e.g. Frontera)
		Rover	Metro Diesel, Range Rover
		Saab	900 '94-onwards (Opel)
		Škoda	General
		BMW	E90
25	KL-0124-625	BMW	Models with header tanks (e.g. 3-series, 5-series and 7-series, 524 Turbo Diesel, E36, E46, E39, E65, E38)
		Rover	Models from 2,5 l Diesel engines
26	KL-0124-626	Daihatsu	General
		Ford	Probe, Maverick
		Honda	General, Accord, Civic, Legend, Accord `92- onwards, Civic Coupe ´93-onwards
		Hyundai	General
		Isuzu	General
		Kia	General
		MAN, Krupp	General
		Mazda	General
		Mitsubishi	General (e.g. Sigma)
		Nissan	General (e.g. Galant, Terrano '96-onwards)
		Opel	Monterey (jap. Vehicles)
		Rover	600
		Subaru	General (e.g. Justy)
		Suzuki	General
		Toyota	General (e.g. Celica, Camry '96-onwards)
		VW	Taro
27	KL-0124-627	Seat	General (e.g. Arosa)
		VW	Golf II, Golf III '93-onwards, Lupo, T4 '99
28	KL-0124-628	MAN, Krupp	HGV F90-F2000
		Mercedes	HGV [heavy Class], Actros
29	KL-0124-629	BMW	BMW E30, E36, E38, E39, E46, E65
30	KL-0124-630	Mazda	121
		Mitsubishi	Space Wagon, Pajero
		Toyota	Celica, Starlett, Corolla
31	KL-0124-631	Opel	Omega, B-Series '96, Vectra A
		Scania	General
32	KL-0124-632	Ford	Scorpio from '95, Transi '95-onwards
33	KL-0124-633	Ford	Galaxy
		VW	Sharan
34	KL-0124-634	Audi	A3, A4, A6 '97-onwards, TT
		Škoda	Oktavia, Superb
		VW	Passat '97-onwards, Golf IV / V, Bora, T5
35	KL-0124-635	Volvo	HGV FH 12
36	KL-0124-636	Mercedes	W210 [E-Class]
37	KL-0124-637	Mercedes	A-Class
38	KL-0124-638	Mercedes	M-Class
		Opel	Sintra '97
39	KL-0124-639	Renault	HGV Midliner
40	KL-0124-640	Renault	HGV Premium, HGV Magnum

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Adaptor Application List by Vehicle Type

The part No. of the appropriate Adaptor is given in Column 4.

Make	Model or Type	Part No.	No.
Alfa Romeo	General	KL-0124-620	20
	General	KL-0124-622	22
	164	KL-0124-623	23
Audi	General	KL-0124-620	20
	General (e.g. A4 up to '96	KL-0124-621	21
	A3, A4, A6 '97 -onwards, TT)	KL-0124-634	34
Autobianchi	General	KL-0124-620	20
BMW	Old Models	KL-0124-620	20
	E90	KL-0124-624	24
	Models with Header Tanks (e.g. 3, 5 and 7 Series, 524 Turbo diesel, E36, E46, E39, E65, E38)	KL-0124-625	25
	3 Series, BMW E30, E36, E38, E39 E46, E65	KL-0124-629	29
Büssing	General	KL-0124-619	19
Chrysler	185 hp engines '91 -onwards	KL-0124-620	20
	171 hp engines '89 -onwards	KL-0124-622	22
Citroën	XM, Evasion, Xantia	KL-0124-620	20
	General	KL-0124-622	22
Dacia	Logan	KL-0124-622	22
Daewoo	General	KL-0124-624	24
DAF	HGV '92 and '95	KL-0124-618	18
	General	KL-0124-620	20
Daihatsu	General	KL-0124-620	20
	General	KL-0124-626	26
Fendt	General	KL-0124-619	19
	General	KL-0124-620	20
Ferrari	General	KL-0124-620	20
Fiat	General	KL-0124-620	20
	General	KL-0124-622	22
Ford	Australian, Explorer	KL-0124-612	12
	General (e.g. Scorpio)	KL-0124-620	20
	General (e.g. Scorpio, Transit, Ka from '96, Mondeo '94 -onwards)	KL-0124-624	24
	Probe, Maverick	KL-0124-626	26
	Scorpio '95-onwards, Transit '95-onwards	KL-0124-632	32
	Galaxy	KL-0124-633	33
Honda	General	KL-0124-620	20
	Concerto	KL-0124-622	22
	General (e.g. Accord, Civic, Legend, Accord'92-onwards, Civic Coupé'93-onwards)	KL-0124-626	26
Hyundai	General	KL-0124-626	26
Isuzu	General	KL-0124-620	20
	General	KL-0124-626	26
Iveco	General	KL-0124-619	19
	General	KL-0124-620	20
Jaguar	General	KL-0124-620	20
	XJ4 / XJ6	KL-0124-624	24
Kia	General	KL-0124-620	20
	General	KL-0124-626	26
Lamborghini	General	KL-0124-620	20
Lancia	General	KL-0124-620	20
MAN, Krupp	General	KL-0124-610	10
	General	KL-0124-619	19
	General	KL-0124-626	26
	HGV F90-F2000	KL-0124-628	28
Mazda	121 with header tank	KL-0124-624	24
	General	KL-0124-626	26
	121	KL-0124-630	30
Mercedes	HGV	KL-0124-611	11
	Bus, Sprinter CDI	KL-0124-616	16
	HGV, Unimog	KL-0124-619	19
	Cars general, Vito	KL-0124-620	20
	HGV, Bus	KL-0124-620	20
	SLK, SLC, CLK	KL-0124-620	20

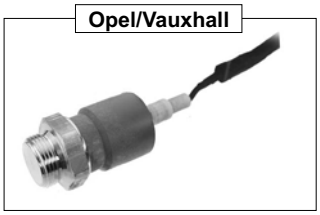
Make	Model or Type	Part No.	No.
Mercedes	HGV [heavy class], Actros	KL-0124-628	28
	W210 [E-class]	KL-0124-636	36
	A-Class	KL-0124-637	37
	M-Class	KL-0124-638	38
Mini	Cooper	KL-0124-611	11
	Cooper	KL-0124-620	20
	Cooper S	KL-0124-623	23
Mitsubishi	General	KL-0124-620	20
	General (e.g. Sigma)	KL-0124-626	26
	Space Wagon, Pajero	KL-0124-630	30
Nissan	General	KL-0124-620	20
	General (e.g. Galant, Terrano '96 -onwards)	KL-0124-626	26
Opel	Omega, '87	KL-0124-620	20
	General (e.g. Frontera)	KL-0124-624	24
	Monterey [jap. Vehicles]	KL-0124-626	26
	Omega, B-Series '96, Vectra A	KL-0124-631	31
	Sintra '97	KL-0124-638	38
Peugeot	General	KL-0124-620	20
	General (e.g. 206, 307, 407)	KL-0124-622	22
Porsche	General	KL-0124-620	20
	Boxster	KL-0124-621	21
Renault	General (e.g. Safrane, Laguna)	KL-0124-622	22
	Espace	KL-0124-623	23
	HGV Midliner	KL-0124-639	39
	HGV Premium, HGV Magnum	KL-0124-640	40
Rover	General (e.g. Mini)	KL-0124-620	20
	Metro, 115, 200, 400	KL-0124-622	22
	Metro Diesel, Range Rover	KL-0124-624	24
	Models from 2,5 l diesel engines	KL-0124-625	25
	600	KL-0124-626	26
Saab	General	KL-0124-620	20
	General (e.g. 900 and 9000 up to '93)	KL-0124-623	23
	900 '94 -onwards [Opel]	KL-0124-624	24
Scania	General (e.g. 93, 113, 143)	KL-0124-613	13
	General	KL-0124-614	14
	HGV Type 94, 114,124, 144	KL-0124-617	17
	General	KL-0124-619	19
	General	KL-0124-620	20
	General	KL-0124-631	31
Seat	General	KL-0124-620	20
	General (e.g. Arosa)	KL-0124-627	27
Simca	General	KL-0124-622	22
Škoda	General	KL-0124-624	24
	Oktavia, Superb	KL-0124-634	34
Subaru	General	KL-0124-620	20
	General (e.g. Justy)	KL-0124-626	26
Suzuki	General	KL-0124-620	20
	General	KL-0124-626	26
Toyota	General	KL-0124-620	20
	General (e.g. Celica, Camry '96 - onwards)	KL-0124-626	26
	Celica, Starlett, Corolla	KL-0124-630	30
Triumph	General	KL-0124-620	20
Volvo	HGV	KL-0124-613	13
	General (e.g. 850, 960)	KL-0124-623	23
	HGV FH 12	KL-0124-623	23
	HGV FH 12	KL-0124-635	35
VW	General (e.g. Polo '96, Passat '87-'96, T4 '99, Transporter '89 -onwards)	KL-0124-620	20
	Golf II	KL-0124-621	21
	Taro	KL-0124-626	26
	Golf II, Golf III '93 -onwards Lupo	KL-0124-627	27
	Sharan	KL-0124-633	33
	Passat '97-onwards Golf IV / V, Bora, T5	KL-0124-634	34

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KL-0123-9029

Opel/Vauxhall





KL-0284-8

VW-Audi

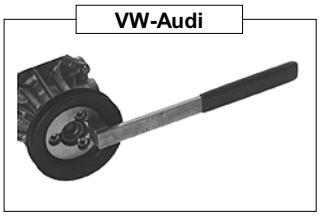




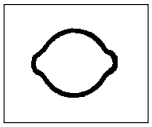
KL-0284-11

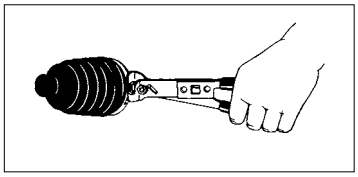
VW-Audi





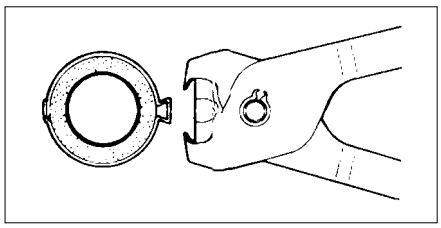
KL-0121-90







KL-0121-93





KL-0121-83

Universal





KL-0123-9029 Socket wrench insert 29 mm

For removing or installing almost all types of thermostat with plug or *non-detachable* cable. Drive: .....1/2"☐

Suitable for Opel/Vauxhall e.g. Corsa B, Omega, Vectra etc.

KL-0284-8 Reaction Wrench

For locking the pulley on the water-pump on **VW Polo, Golf, Passat and Audi 80/A4**. Length: ..... 250 mm

Advantages:

- The ½“ ☐ drive in the tools handle enables an extension of the tool by e.g. a ratchet.
- Easy loosening of stubborn bolts on the water-pump pulley.

KL-0284-11 Reaction Wrench

For locking of deep-drawn water-pump pulleys on **VW and Audi** engines, as they are used when e.g. an air conditioning is also built in. Length: ..... 298 mm

Advantages:

- Safe locking of the water-pump pulley.
- Easy loosening of stubborn bolts on the water-pump pulley.

Technical Data:

Part No.	KL-0284-8	KL-0284-11
Overall length	250 mm	300 mm
Width	80 mm	65 mm
Height	8 mm	40 mm
Weight	450 g	450 g
Drive	1/2“☐ or by hand	by hand

KL-0121-90 Hose Band Pliers

For tightening of clamps (system OETIKER) on cv boots, water and fuel hoses.

Suitable for Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel/Vauxhall, VW etc.

Advantages:

- No damage to spring band clamps.
- No damage to hoses.
- Easy and quick replacement of hoses.

Length: ..... 240 mm Weight: ..... 492 g

KL-0121-93 Hose Band Pliers

With Power Transmission an 2 Working-Stages.

For tightening of clamps (system OETIKER) on cv boots, water and fuel hoses. With toggle joint.

Applications: Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel/Vauxhall, VW etc.

Length: ..... 280 mm Weight: ..... 475 g

KL-0121-83 Hose Band Cutter straight

To open or cut "earless“ Clamp-Bands on CV-Joints, Drive-Shafts, Radiator Hoses, Fuel-lines, etc.

Universal application.

Length: ..... 220 mm Weight: ..... 340 g

KL-0121-84 Hose Band Cutter angled (not ill.)

As **KL-0121-83.**

But with angled head for inaccessible locations.

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KL-0121-22



KL-0121-23



KL-0121-24





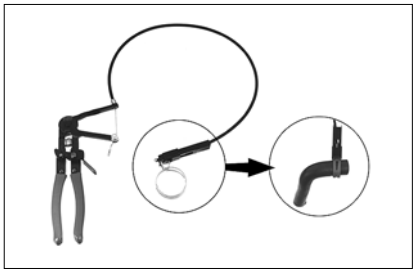
KL-0121-25



Spare Part:

KL-0121-2501





KL-0121-22, KL-0121-23, KL-0121-24, KL-0121-25 Hose Clip Pliers with locking ratchet

For replacement of hose-clips on Fuel-lines, Oil-pipes and water-hoses, which are not retained by „Jubilee“ type clips, but re-usable, self-tensioning spring-clips. Special design allows the spring hose clips to be securely gripped and safely expanded.

Suitable for Alfa Romeo, Audi, Citroën, Fiat, Ford, Hyundai, Lancia, MAN, Mercedes, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Toyota, VW, Volvo, etc.

Following clips may be replaced with the Hose Clip Pliers: Norma, ABA (AWAB), MIKALOR, MUBEA from Ø 18 - 53 mm.

KL-0121-22 Hose Clip Pliers straight with ratchet

Clip -Ø: .....18 - 53 mm
Length:.....273 mm
Weight: .....390 g

KL-0121-23 Hose Clip Pliers 110° off-set tips with ratchet

Clip-Ø: .....18 - 53 mm
Length:.....285 mm
Clamp Angle: .....110°
Weight: .....425 g

KL-0121-24 Hose Clip Pliers 90° off-set tips with ratchet

Clip-Ø: .....18 - 53 mm
Length:.....225 mm
Clamp Angle: ..... 90°
Weight: .....403 g

KL-0121-25 Hose Clip Pliers with remote operation and ratchet

With remote operation and ratchet.

Application as **KL-0121-22 - 24**, but with remote control especially for difficult to reach positions.

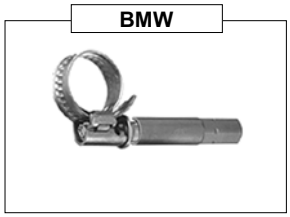
Clip -Ø: .....18 - 53 mm
Length:.....225 mm
Clamp Angle: ..... 90°
Weight: .....403 g

KL-0121-2501 Replacement Bowden Cable

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KL-0581-1





KL-0581-1 Special Socket

For **BMW** hose clamps, 2 flats, oval 5.2×6.1

Drive:.....¼"□

For removal, replacement or tightening the safety clamp on fuel lines, the BMW fuel-lines may be tightened to prevent leakage.

KL-0121-82





6 / 7 mm hex



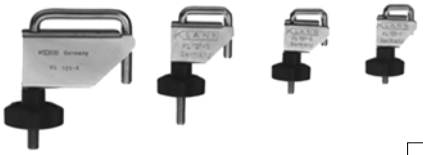
KL-0121-82 Hose Clip Tool 6 / 7 mm hex

Quick and easy loosening and tightening worm-drive hose clips with 6 mm and 7 mm hex drives - e.g. on fuel-lines, oil-coolers, radiator-hoses and heater-hoses. Inaccessible hose-clips easily handled due to long, flexible Shaft.

Technical Data:

Length $_{Overall}$: ..... 325 mm
Length $_{Shaft}$: ..... 205 mm
Drives : ..... 6 / 7 mm hex
Weight : ..... 160 g

KL-0121-20





KL-0121-20 Hose Clamp Set (4 Pcs.)

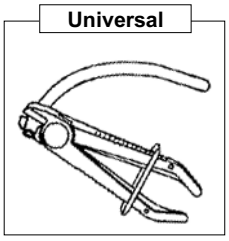
To clamp hoses during repairs.

For fuel-, brake- and water-lines

consists of:

Part No.	Description
KL-0121-1	Hose Clamp for up to 10 mm line diameter
KL-0121-2	Hose Clamp for up to 15 mm line diameter
KL-0121-3	Hose Clamp for up to 24 mm line diameter
KL-0121-4	Hose Clamp for up to 45 mm line diameter

KL-0121-50







KL-0121-10 Hose Clamp Set (3 Pcs.)

As **KL-0121-20**, however

consists of:

Part No.	Description
KL-0121-1	Hose Clamp for up to 10 mm line diameter
KL-0121-2	Hose Clamp for up to 15 mm line diameter
KL-0121-3	Hose Clamp for up to 24 mm line diameter

KL-0121-50 Hose Clamp Set (3 Pcs.)

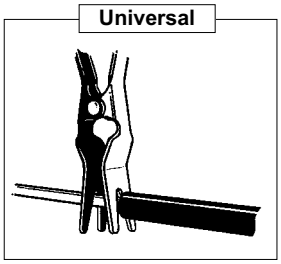
Made of plastic. For clamping hoses such as: Radiator hoses, Heater hoses, Fuel hoses, etc. with Ø up to 60 mm.

Weight:..... 300 g

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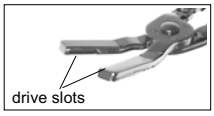
KL-0121-70

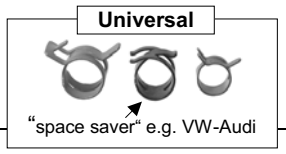




KL-0121-26

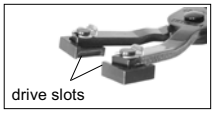






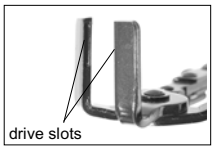
KL-0121-27

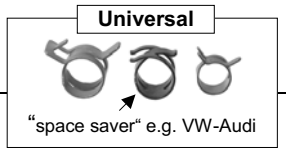




KL-0121-28

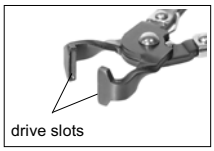






KL-0121-29





KL-0121-70 Hose Removal Pliers

For Easy Removal of 4 mm to 13 mm Vacuum and Fuel hoses.

Engage the tube (line) with the black jaw. This sharpened jaw actually "DIGS" into the tube to grip it! Squeeze and the hose is easily pushed off by the silver jaw.

Length:.....200 mm
Weight: .....227 g

KL-0121-26 Hose Clip Pliers
with locking ratchet
(German Utility Model)

For removal and replacement of Fuel-lines, Oil-lines, Radiators Hoses and Heater Hoses fitted with space-saving, re-usable, self-clamping spring hose clips. Special design ensures that the compressed clips are safely and securely retained.

For Alfa Romeo, Citroën, Fiat, Ford, Hyundai, Lancia, Mercedes, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Skoda, Toyota, Volvo, etc. especially for the new Clips on fuel-lines on VW-Audi.

Following makes of Hose Clips require these Pliers: Norma, ABA (AWAB), MIKALOR and MUBEA etc.

KL-0121-27 Hose Clip Pliers
with locking ratchet
(German Utility Model)

As **KL-0121-26**.
but **with pivoting tips.**

Due to the pivoting tips, the compression forces are always parallel to the ears of the hose-clips offering increased security.

KL-0121-28 Hose Clip Pliers
with locking ratchet angled
(German Utility Model)

As **KL-0121-26**.
Version **angled at 90°** and has **offset drive slots at the sides**.

KL-0121-29 Hose Clip Pliers
(German Utility Model)

As **KL-0121-26**.
Version with **vertically mounted** drive slots, without locking lever.

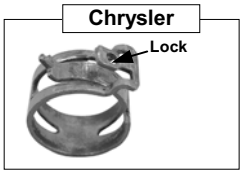
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KL-0121-36



KL-0121-19

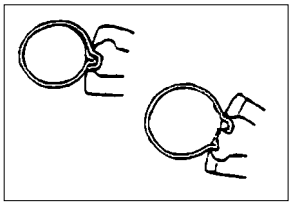






KL-0121-94





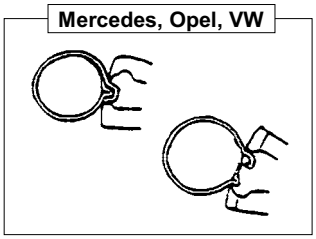
KL-0121-91





KL-0121-92





KL-0121-36 Set of Release Clips

Application: Chrysler, Ford, GM, Opel/Vauxhall, Saab, VW etc.

The set of release-clips **KL-0121-36** consists of six sizes of nylon-clips for unlocking of CLIC-hose-clips on air-conditioning systems and fuel lines.

The various sizes of Connectors are released from their end face.

Sizes: 7,9 mm (5/16“), 9,5 mm (3/8“), 12,7 mm (1/2“), 15,9 mm (5/8“), 19 mm (3/4“), 22,2 mm (7/8“).

KL-0121-19 Hose Clip Pliers

For opening and closing hose clips with a lock in the open position.

Operating instructions:

1. To ***open*** the hose clip, place it in the locating groove so that it is fully in contact with the surface marked “ON”. Operate the pliers. The hose clip will be held in the open position.
2. To ***close*** the hose clip, place it in the locating groove so that it is fully in contact with the surface marked “OFF”. Operate the pliers. The hose clip will be unlocked and can be positioned as required on the hose clip.

Suitable for on hose clips with a built-in lock in the open position e.g. Chrysler etc.

KL-0121-94 Hose Clip Pliers

For CLIC-clips

For releasing and re-fitting reusable hose clips, types CLIC and CLIC-R (Caillau/Serflex).

Application: Audi, Citroën, Fiat, Mercedes, Opel/Vauxhall, Peugeot, Renault, VW etc.

Weight: ..... 270 g

KL-0121-91 / -92 Hose Clip Pliers

For releasing and re-fitting the re-usable hose clips types CLIC and CLIC-R (Caillau/Serflex).

Suitable for VW-Audi, Citroën, Mercedes, Opel/Vauxhall, Peugeot, Renault, etc.

KL-0121-91 - for left hand jaws.

KL-0121-92 - for right hand jaws.

Technical Data:

Part No.	KL-0121-91	KL-0121-92
Length	170 mm	170 mm
Weight	160 g	160 g

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KL-0121-340

KL-0121-32



Peugeot, Renault



KL-0121-33



KL-0121-34



KL-0121-35



Opel



KL-0121-37



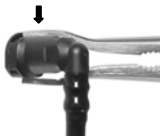
Fiat, GM



KL-0192-22



VW-Audi, Mercedes

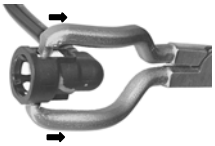


KL-0121-38

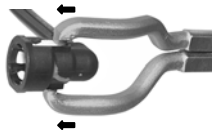


Mercedes

Removal of Connector
(opening the line)



Replacing the Connector
(locking the connector)



KL-0121-340 Set of 3 Fuel-Line Pliers

Pliers to open connectors on fuel-lines.
For Chrysler, Chevrolet, Citroën, Fiat, Ford, Opel/Vauxhall, Peugeot, Pontiac, Renault, VW etc.

On fuel-lines connected by "snap-fit" connections, the connectors may be released using Pliers **KL-0121-32** for Ø 8 mm and **KL-0121-33** for Ø 10 mm fuel-lines. (The release segments are to be found on the reverse side of the connector in the axis of the line).
For connectors on Vauxhall/Opel GM, Fiat, etc. where the release segments are activated from the side, Pliers **KL-0121-34** (2 tips 6.5 x 6 mm) are required.

Contents:

KL-0121-32 Pliers for Fuel-lines Ø8
KL-0121-33 Pliers for Fuel-lines Ø10
KL-0121-34 Pliers for Fuel-lines GM-Opel/Vauxhall

KL-0121-35 Clamp

Applications: Opel/Vauxhall, GM, Fiat, etc.

Clamp **KL-0121-35** for unlocking quick release connections, which can be reached from the side.

Advantages:

- No damage to quick release connections or clamps.
- No damage to fuel lines or hoses.
- Easy and quick separation of fuel lines.

Technical Data:

Part No.	KL-0121-32	KL-0121-33	KL-0121-34	KL-0121-35
Fuel Line-Ø	8 mm	10 mm	GM-Opel	universal
Length	110 mm	110 mm	115 mm	124 mm
Weight	75 g	75 g	70 g	45 g

KL-0121-37 Fuel Feed Pipe Pliers

Application: Opel/Vauxhall, Fiat, GM, VW etc.

For undoing quick release connections on fuel feed pipe lines.
Weight: .....190 g

KL-0192-22 Safety Clip Pliers bended

Suitable for all Audi A3, VW Golf IV with Petrol engines
To release the fuel line unions. Needed for example when the fuel filter is changed.

Suitable for Mercedes W124, W140 and W202.
For installing retaining clips to secure the chrome strip on the bumper of the **Mercedes** W124, W140 and W202.
Therefore, the pliers is equipped with special clip retaining notches.

Length:..... 210 mm Weight: ..... 200 g

KL-0121-38 Fuel Line Pliers

Suitable for VW-Audi, Fiat, GM, Opel, Mercedes etc.
e.g. Mercedes M-Class with Petrol engines.

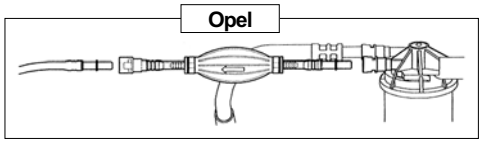
For removal and replacement of the connections on the in-line Fuel Filter. Required when replacing the Fuel Filter or during engine repairs.

Removal of Connector:
Pull the connector backwards with the Pliers.

Replacing the Connector:
Slide the connector forwards with the Pliers.

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KL-0482-42





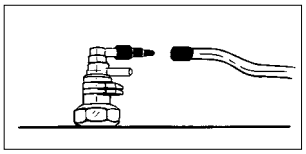
KL-0482-42 Diesel suction pump

Suitable for Opel/Vauxhall 2,0 and 2,2 Ecotec Diesel engines (X20DTL, X20DTH, X22DTH) with VP 44 injection pump.

This pump is needed to bleed the fuel system, for example if it has been opened for fuel filter renewal or engine repair work.

KL-0121-75





KL-0121-75 Vacuum Hose Cap Set

Identifies Vacuum Hoses and Fittings for Proper Installation. Use when disconnecting vacuum lines and other hoses from fittings. Colour coded, 48-piece set fits all vacuum application from 1/8“ (3,2 mm) to ½“ (12,7 mm).

Weight:..... 200 g

KL-4021-3113







KL-4021-3113 Socket Insert 13 mm hex

Suitable for:**VW-Audi, Seat, Škoda 4 Cylinder TDI PD engines**

The special socket **KL-4021-3113** allows quick and trouble-free loosening and tightening of the central retaining bolt of the Fuel Cooling Unit - example when replacing the Fuel Filter.

This special socket may also be used to remove and replace the brass insert on Injector Valves on Audi petrol engines 1990 - onwards.

Drive:..... 1/2” ☐ Length: .....100 mm Hex:..... 13 mm

KL-0120-80





KL-0120-80 Fuel Tank Sender Spanner Set adjustable

Universal application.

For removing and replacing the Plastic Retaining Ring on the Sender Unit on Fuel Tanks.

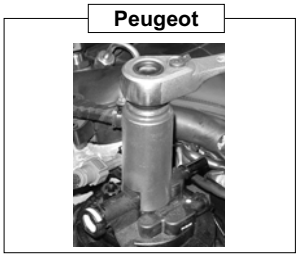
Consists of:

KL-0120-801 Tank Sender Spanner Ø80 mm - Ø120 mm
Range:.....80 - 120 mm Drive:.....Hex 24

KL-0120-802 Tank Sender Spanner Ø110 mm - Ø170 mm
Range:..... 110 - 170 mm Drive:.....Hex 24

KL-0122-56





KL-0122-56 Fuel Filter Key 27 mm

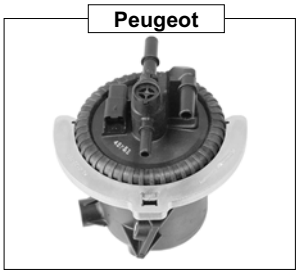
Suitable for Peugeot e.g. 307 SW 2,0 HDI etc.

The fuel filter key is required to remove and install the fuel filter cap when replacing the fuel filter cartridge.

Drive:..1/2” ☐ Length:..85 mm Socket size:..27 mm

KL-0122-701





KL-0122-701 Fuel Filter Key Ø 108 mm (German Utility Model)

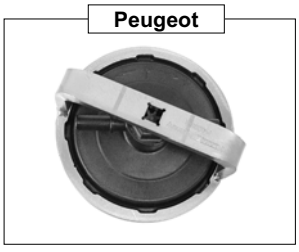
Suitable for Peugeot, Citroen, Renault e.g. with HDI diesel engines.

The fuel filter key is required to remove and install the fuel filter cap when replacing the fuel filter cartridge.

Drive:..... 3/8” ☐ Profile: ..... Ø 108 mm, 46 Rillen

KL-0122-608





KL-0122-608 Fuel Filter Key Ø 109 mm

Suitable for Peugeot, Citroen, Renault etc.

The fuel filter key is required to remove and install the fuel filter cap when replacing the fuel filter cartridge.

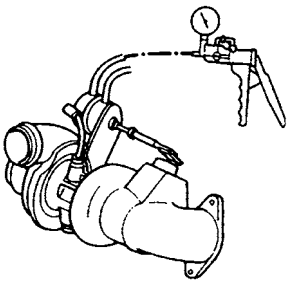
Drive:..... 3/8” ☐ Profile: ..... Ø 109 mm, 8 Rillen

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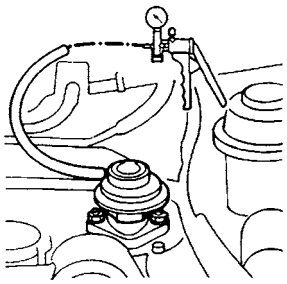
KL-0124-4

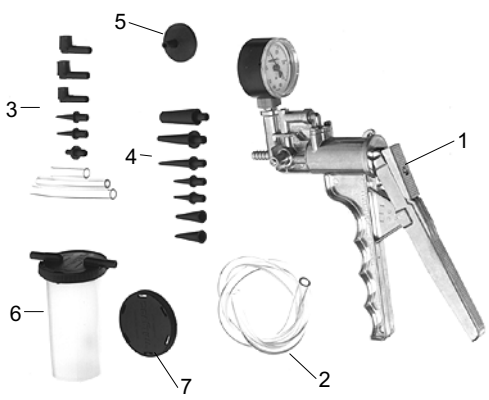


Controlling the Turbo Charger Valve



Controlling the EGR-Valve





KL-0124-4 Pressure- and Vacuum-Pump

With plastic storage case for checking of pressure and vacuum lines.

Recommended from following manufacturers:

VW-Audi, Porsche, Chrysler, Daihatsu, Nissan, Toyota, Peugeot, Citroën, Renault, etc.

Also applicable for:

BMW, Mercedes, GM Opel/Vauxhall, Rover, Saab, Volvo, etc.

Following units can be tested with the pressure/ vacuum pump:

- Fuel-system,
- Distributor vacuum adjustment curve,
- Distributor vacuum membrane,
- Vacuum sensor,
- Exhaust gas recirculation valve,
- Cleavage measure at carburetor throttle valve,
- Float needle on carburetor,
- Fuel pressure regulator,
- Vacuum modulator on automatic transmission,
- Brake booster,
- Turbo charger valves,
- Fuel pump membrane,
- Removal of small fluid quantities, e.g. hydraulic oil, fuel, etc.

Technical Data:

- KL-0124-4000 .....Two-way metalastic pump
- Vacuum range.....von 0 - 1,0 bar
- Pressure range .....von 0 - 1,5 bar
- Scale..... Pressure gauge
- Weight.....1,4 kg
- Package .....in Plastic Storage Case

KL-0124-4 consists of:

Pos.	Part No.	Description
1	KL-0124-4000	Press/Vacuum pump
2	KL-0124-3001	Connecting Hose
3	KL-0124-4001	Adaptors for brake system
4	KL-0124-4002	Adaptors for engine
5	KL-0124-4003	Adaptor for economizer valve on Ford
6	KL-0124-4004	Container
7	KL-0124-4005	Cover for Container
-	-	Plastic Storage Case

Accessory:

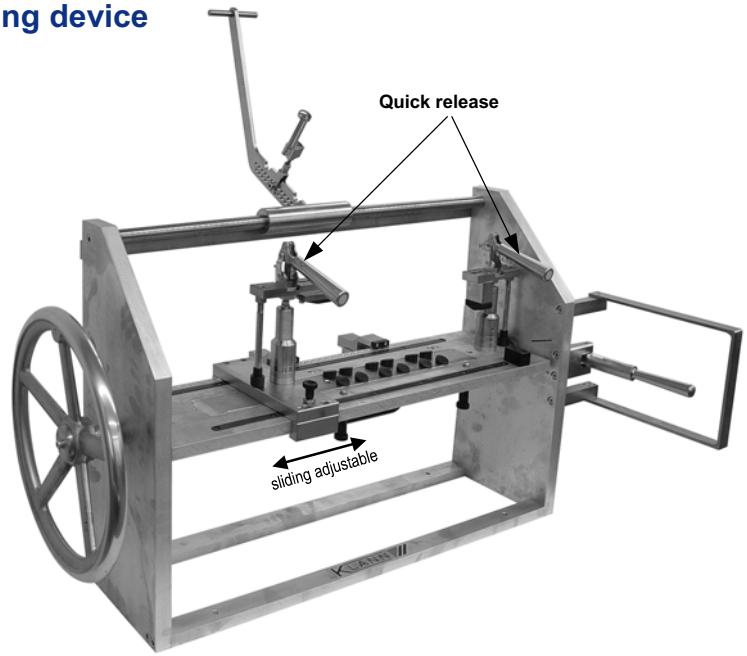
	Part No.	Description
	KL-0124-3010	Press/Vacuum Repair Kit
	KL-0124-3002	Thermometer
	KL-0124-3003	Adaptor

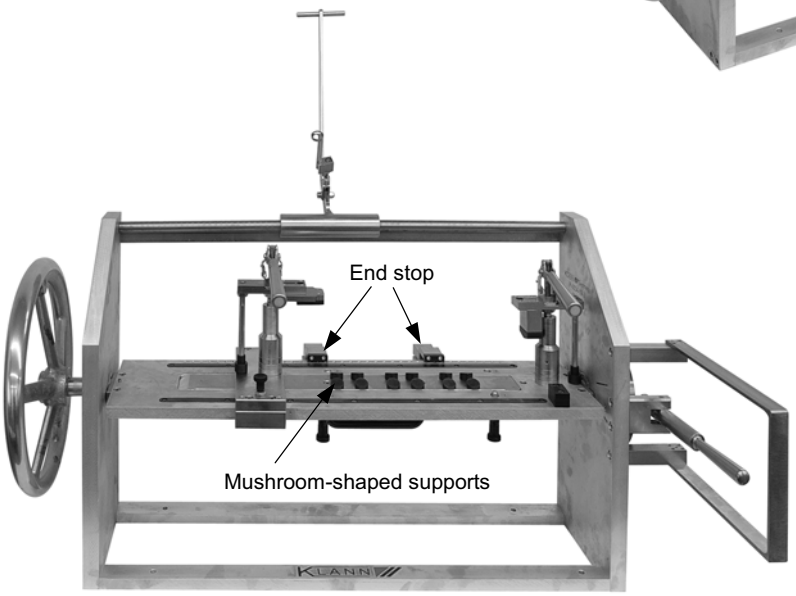
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Cylinder head assembly and dismantling device

The cylinder head is fixed to the device through quick releases.

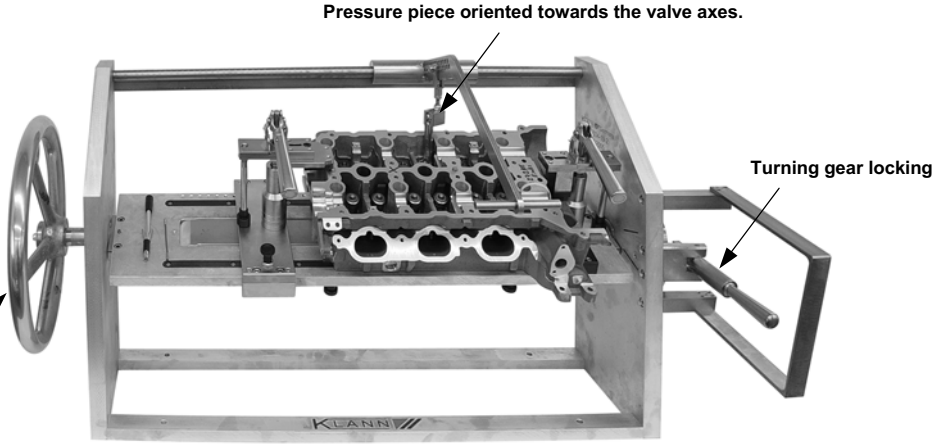
In order to fix different cylinder heads e.g. 4, 5 to 6 cylinder engines, one of the two quick releases is placed on a sliding table.





As valve support a replaceable slide in panel provided with mushroom-shaped supports especially suitable for the valve discs has been inserted in the base plate.

The device has been designed so that the cylinder head can be oriented towards the valve axes. The cylinder head rotates 90°.



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KL-0061-1



Universal



KL-0062



KL-0063



KL-0060



KL-0064



Universal



KL-0066



KL-0067





KL-0061 Swivel Mounting (not ill.)

Without Support Shaft

To fix on Repair stand **KL-0062.** Weight:.....12,6 kg

KL-0061-1 Swivel Mounting Ø 60 mm

With Support Shaft Ø 60 mm.

To fix on Repair stand **KL-0062.** Weight:.....19,6 kg

KL-0062 Repair Stand

To support **KL-0061** or **KL-0061-1.**

Upper Plate:.....260 × 180 mm Height:.....820 mm
Lower Plate:.....350 × 500 mm Weight:.....33 kg

KL-0063 Repair Stand Complete

consists of:

Part No.	Description
KL-0061	Swivel Mounting
KL-0062	Repair Stand

To support **KL-0060** and **KL-0066**. The Stand can also be used with the Matra engine and gearbox holder.

Weight:.....45 kg

KL-0060 Cylinder Head Overhaul Kit

Suitable for most vehicles. The pressure piece **KL-0125-1015** is part of the tool **KL-0060.** Further pressure pieces see next page.

To use with **KL-0063**. Weight:.....58,2 kg

KL-0064 Cylinder Head Overhaul Stand

consists of:

Part No.	Description
KL-0061	Swivel Mounting
KL-0062	Repair Stand
KL-0060	Cylinder Head Overhaul Kit

Applications:

- For dismounting/mounting of camshaft and valves.
- For cleaning of cylinder head including combustion chamber, inlet and outlet channels from oil-carbon deposits.
- For checking lubrication holes for oil passage.
- For inspecting of cylinder head with straight edge for warping (**KL-0140-60 or KL-0140-61**).
- For checking of valve guides and springs.
- For refacing and grinding of valve seats.
- For testing of valves for tightness.

Weight:.....103 kg

KL-0066 Holding Fixture

For engines/transmissions.

To use with **KL-0063.** Weight:.....19 kg

KL-0067 Engine And Gearbox Stand

consists of:

Part No.	Description
KL-0061	Swivel Mounting
KL-0062	Repair Stand
KL-0066	Holding Fixture

Load $_{max.}$: ..... 500 kg Weight:.....64 kg

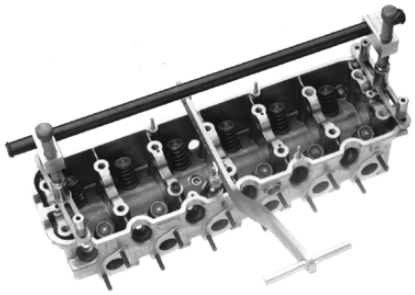
Note: Before use, the Engine and Gearbox Stands have to be fixed onto the ground.

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KL-0125-1 A



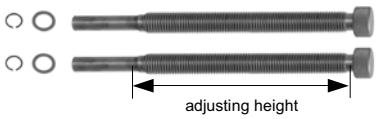
Installation example BMW, Mercedes, Opel, etc.



Installation example VW-Audi, Ford, Peugeot, Volvo, etc.



Accessory: KL-0125-102



Special Pressure Piece BMW (KL-0125-1032)



KL-0125-1 A Universal Valve-Spring Compressor Tool

Applicable for 1-12 cylinder engines - two up to four-valve technology, in-line-engines or V-engines.

This tool permits renewal of valve-stem oil-seals with the cylinder head removed or cylinder head assembled.

The retaining flanges are rotatable, so that they may be affixed to the cylinder head lengthways, sideways or diagonally.

The correct height of the supporting rod may be adjusted due to the adjustment spindles on the left and right side, to achieve the correct angle between handle and the pressure piece for compressing the valve-spring.

Moveable rests allow infinitely adjustment of the tool length and therefore an universal application for 1-12 cylinder engines.

Advantages:

- **Increased job time saving due to the possibility of repairing the valve-stem oil-seals with still assembled cylinder head.**
- **Universal application due to different installation and adjustment possibilities.**

Note:

The Pressure Piece **KL-0125-1015** is part of the tool-**KL-0125-1 A.**

Pressure Pieces for KL-0125-1 A



Part No.	Description	Application	Outer-Ø
KL-0125-1035	Pressure Piece	Peugeot/Citroën HDI	21 mm
KL-0125-1033	Pressure Piece	Opel, Seat, VW-Audi	24 mm
KL-0125-1034	Pressure Piece	Hyundai	25 mm
KL-0125-1022	Pressure Piece	Toyota, Ford 16V	28 mm
KL-0125-1023	Pressure Piece	Nissan	30 mm
KL-0125-1021	Pressure Piece	Toyota	31 mm
KL-0125-1024	Pressure Piece	Opel; Peugeot	32 mm
KL-0125-1025	Pressure Piece	Renault 19 and Clio	33 mm
KL-0125-1015	Pressure Piece	BMW; VW; Peugeot diesel	34 mm
KL-0125-1026	Pressure Piece	Renault; Mazda; Peugeot 106; Mercedes M102, M104	35 mm
KL-0125-1027	Pressure Piece	Fiat	37 mm
KL-0125-1028	Pressure Piece	Peugeot; Citroën	38 mm
KL-0125-1031	Pressure Piece	Mercedes OM 601; 602; 603	40 mm
KL-0125-1029	Pressure Piece	Ford	42 mm
KL-0125-1030	Pressure Piece	Fiat diesel	44 mm
KL-0125-1032	Special Pressure Piece, open	BMW-M40,	34 mm

Note: The universal valve-spring compressor tool **KL-0125-1 A** is the same as the previous **KL-0125-1** valve-spring compressor tool, but with lengthened adjusting spindles that now have an adjusting height of 190 mm.
(Adjusting height **KL-0125-1** = 110mm).

Accessory for KL-0125-1:

KL-0125-102 Adjusting spindles (adjusting height 190 mm)
When using the valve collar installation tools **KL-0125-601 /-602 / or -603** and the thrust block from the **KL-0125-61...** series that is also needed, the previous engine bridge **KL-0125-1** must be modified to suit the lengthened adjusting spindles **KL-0125-102**.

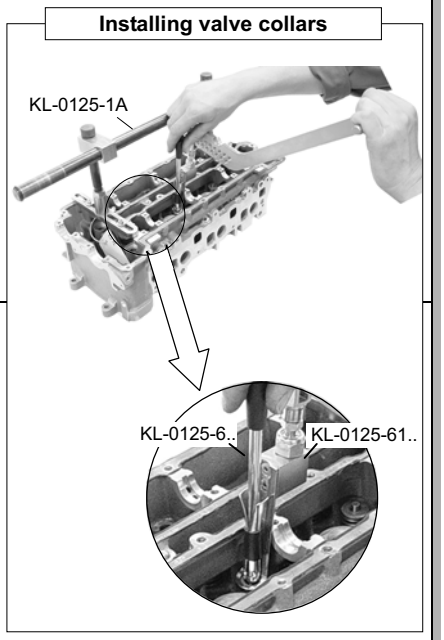
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KL-0125-60



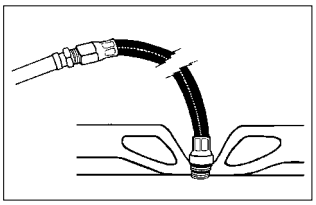
KL-0125-61..





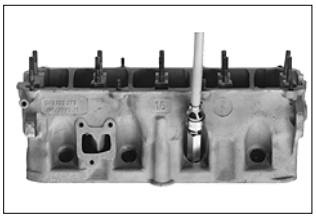
KL-0127-20





KL-0127-1





KL-0125-60 Valve collar assembly tool set

For installing valve collars.

Re-installing valve collars with ***three grooves*** can be difficult if space is restricted, the valve springs are located deep inside the cylinder head or the valve springs are recessed deeply into bucket tappet guides.

The new **KL-0125-6.. series** of valve collar assembly tools, together with the matching thrust block from the **KL-0125-61.. series** and the **KL-0125-1 A** valve assembly bridge, makes the assembly of single- and three-groove valve collars safe and easy, whether the cylinder head is on the engine or removed. This is particularly important if valve stem seals have to be renewed without removing the cylinder head.

consists of:

Part-No:.	Description	Application	Ø
KL-0125-601	Valve-Collet Assembly Tool	Opel, VW-Audi	Ø5 mm
KL-0125-602	Valve-Collet Assembly Tool	Smart, VW-Audi	Ø6 mm
KL-0125-603	Valve-Collet Assembly Tool	Mercedes	Ø7/ 8 mm

KL-0125-61..Series Press Pieces

Available Press Pieces (including fork head):

Part-No.	Description	Application	Outside-Ø
KL-0125-6121	Press Piece Ø 21	Peugeot/Citroën HDI	21 mm
KL-0125-6122	Press Piece Ø 22	Mercedes, Smart	22 mm
KL-0125-6124	Press Piece Ø 24	VW-Audi, Seat, Smart, Opel	24 mm
KL-0125-6125	Press Piece Ø 25	Hyundai	25 mm
KL-0125-6126	Press Piece Ø 26	Mercedes, VW	26 mm
KL-0125-6128	Press Piece Ø 28	Toyota, Ford	28 mm
KL-0125-6130	Press Piece Ø 30	Nissan	30 mm
KL-0125-6131	Press Piece Ø 31	Toyota	31 mm
KL-0125-6132	Press Piece Ø 32	Opel; Peugeot	32 mm

KL-0127-20 Compressed Air Adaptor
(M14x1,25 / M18x1,5)

For connecting to Spark Plug holes.

Commonly used when valve springs or valve stem seals are replaced. Air pressure helps prevent the valve from falling into the combustion chamber. Comes with two-step fitting for both 14mm and 18mm threads. Heavy duty 12“ flexible hose allows easy access to spark plug hole and air supply. Thread fitting to spark plug hole and other end of air supply.

For Threads: .....M14×1,25 and M18×1,5
Length:.....305 mm
Compressed Air side:..... 1/4"-18 NPT
Weight: .....120 g

KL-0127-1 Compressed Air Adaptor
(M12x1,25 / M14x1,25)

For connecting to Spark Plug holes.

The Compressed Air Adaptor allows compressed air to be applied to the cylinder being repaired. This is required to hold the valves shut during replacement of the Valve-Stem Oil-Seals without removal of the cylinder-head.

Connection Threads: .....M12×1,25 and M14×1,25
Length:.....170 mm

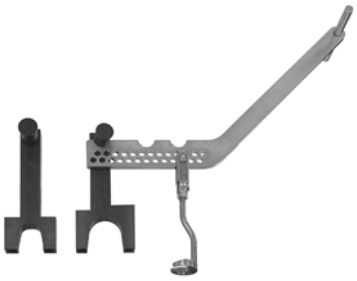
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KL-0126-205



KL-0370-2

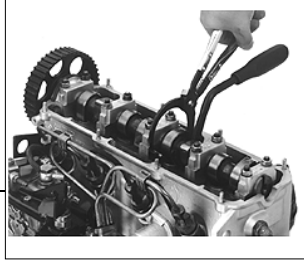
Mercedes



KL-0280-1



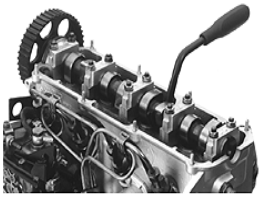
VW-Audi, Ford



KL-0280-2



VW-Audi, Ford



KL-0280-3



KL-0126-205 Telescopic magnetic lifter with scriber

This telescopic magnet lifter can be used to remove metallic objects or particles from positions that cannot easily be reached by other means. The **KL-0126-205** magnetic lifter is particularly suitable for lifting valve collars.

Technical Data:

Length: ..... 150 - 670 mm
Magnetic-Ø: ..... 7,5 mm
Liftpower: ..... 300 g
Weight: ..... 28 g

KL-0370-2 Valve Spring Compressor

For **Mercedes** engines M102 and M103 with single camshaft to change the valve seal without removing the cylinder head.

The tool does not apply to model 190 E 2.3-16!

KL-0280-1 Valve Shim Pliers

For changing the valve shims while the cam followers are held depressed on **VW-Audi** engines 1.3 l and **Ford**.

KL-0280-2 Valve Depressor

For bucket tappets of **VW Golf, Jetta, Caddy, Scirocco, Passat, Santana, Audi 80/100 up to 1982** in conjunction with tool **KL-0280-1**.

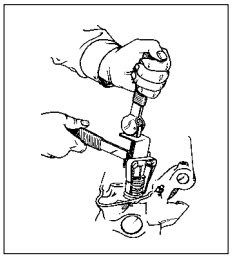
KL-0280-3 Valve Depressor

Necessary for adjusting the valve clearance on **VW-Audi** 4-cylinder engines from 1983 and all 5 and 6 cylinder engines with bucket tappets in conjunction with shim pliers **KL-0280-1**.

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KL-0125-80





KL-0125-80 Valve Spring Compressor

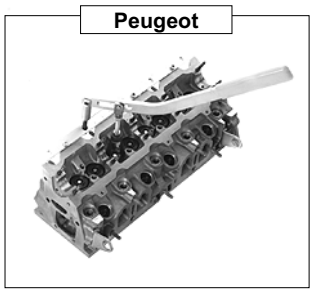
Makes compressing the spring and removing the keepers a simple job because there is no need to remove the head.

Adjustable cam action. Fast, because there is no need to readjust the tool after each spring.

Weight: .....820 g

KL-1381-2





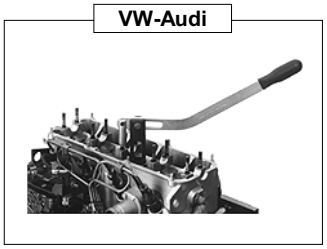
KL-1381-2 Valve Spring Compressor

For removal and installation of valve springs with removed cylinder head or cylinder head still in place; applicable on **Peugeot** engines with valve tappet disc-Ø of 38 mm.

The pressure piece is exchangeable according to the valve tappet disc-Ø. See tool **KL-0125-1 A**.

KL-0281-2





KL-0281-2 Valve Spring Compressor

Fitted with a fork head for 8 mm Cylinder Head Studs. Applicable for removal and installation of valve springs on **VW-Audi** engines from 1.3 l, up to 1993.

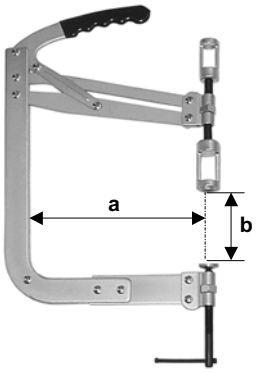
Pressure piece **KL-0125-1015**, metallastic design.

Accessory:

KL-0281-2001 **Fork Head for Cylinder-Head with 7 mm studs**

(e.g. **VW Polo, Golf II, Golf III** with 1.4 l and 1.6 l engines).

KL-0125-93





KL-0125-93 Valve-Spring Compressor

Valve-Spring Compressor suitable for almost all engines due to it's wide range of adjustment.

Part No.	Pressure Piece-Ø	a [mm]	b [mm]	Weight [g]
KL-0125-93	25 / 30 mm	240	20 - 250	2.550

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KL-0049-17



KL-0049-16



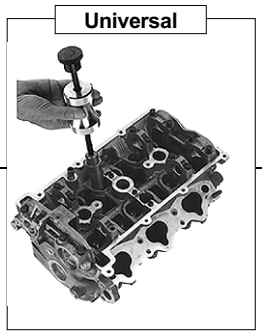


KL-0049-13



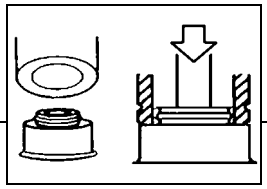
KL-0049-12





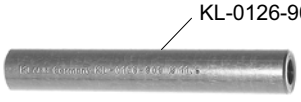
KL-0126-91K





KL-0126-9K





KL-0049-17 Valve Seal Removal Slide Hammer

For Valve Stem Sealing Rings

The Valve Seal Removal Slide Hammer can be used **universally** and consists of valve seal collet chuck **KL-0049-170** and the slide hammer **KL-0049-100**.

The special design and construction allows quick and easy removal of the valve-stem-oil-seals without any risk of damage to the inner walls of the cylinder-head in the area of the bucket-tappets.

For bucket-tappets with diameters from 12 mm to 15 mm.

KL-0049-16 Valve Seal Removal Slide Hammer

For Valve Stem Sealing Rings.

As **KL-0049-17**, but with the valve seal collet chuck **KL-0049-160** instead of **KL-0049-170**.

For bucket-tappets with diameters from 15 mm to 18 mm.

KL-0049-13 Valve Seal Removal Slide Hammer

For Valve Stem Sealing Rings.

As **KL-0049-17**, but with the valve seal collet chuck **KL-0049-130** instead of **KL-0049-170**.

For bucket-tappets with diameters from 23 mm to 26 mm.
(e.g. Audi engines 5 valves per cylinder).

KL-0049-12 Valve Seal Removal Slide Hammer

For Valve Stem Sealing Rings.

As **KL-0049-17**, but with the valve seal collet chuck **KL-0049-120** instead of **KL-0049-170**.

For bucket-tappets with diameters from 26 mm upwards.

KL-0126-91 K Valve Stem Seal Tool Set

For Valve Stem Sealing Rings

This tool set allows the removal and replacement of valve shaft sealing rings.

Specification:

Part No.	Description
KL-0126-91K	**Valve Stem Seal Tool Set**
consists of:	
KL-0049-100	Basic Slide Hammer
KL-0049-120	Valve Seal Collet Chuck **(bucket-tappets diam. 26 mm upwards)**
KL-0049-130	Valve Seal Collet Chuck **(bucket-tappets diam. 23 mm up to 26 mm)**
KL-0126-61	Oil Seal Removal Pliers - Long
KL-0126-9	Press Set for valve seals (10 pcs., Ø 9.5 - 14 mm inside)
KL-0126-9001	Plastic Case (empty)

KL-0126-9 K Valve Stem Seal Installer Set

For Valve Stem Sealing Rings

The tool set **KL-0126-9 K** allows quick and precise installation of valve-stem-oil-seals on petrol and diesel engines with 2-valve or multi-valve technology.

The installation tools are made from special plastic which ensures that damage to the new oil-seals and the valve-guides is eliminated. (Outer-Ø 20 mm).

The Pressing Set for Valve Seals KL-0126-9 K *consists of:*

Part No.	for Inner Hole
KL-0126-905	Ø 9,5 mm
KL-0126-906	Ø 10,0 mm
KL-0126-907	Ø 10,5 mm
KL-0126-908	Ø 11,0 mm
KL-0126-909	Ø 11,5 mm
KL-0126-910	Ø 12,0 mm

Part No.	for Inner Hole
KL-0126-911	Ø 12,5 mm
KL-0126-912	Ø 13,0 mm
KL-0126-913	Ø 13,5 mm
KL-0126-914	Ø 14,0 mm
KL-0126-9001	Plastic Case (empty)

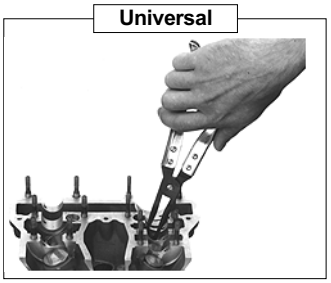
KL-0126-9 Valve Stem Seal Installer Set (not ill.)

As **KL-0126-9 K** but without Storage Case **KL-0126-9001**.

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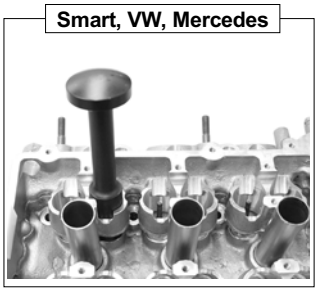
KL-0126-61





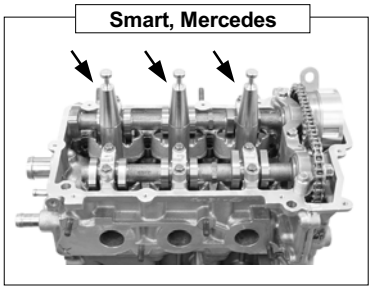
KL-0126-9..-Serie





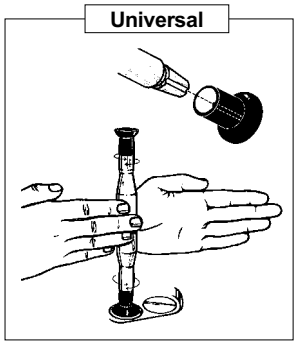
KL-0126-999





KL-0125-71 / KL-0125-70





KL-0126-61 Valve Seal Removal Pliers

For Valve Stem Sealing Rings

The special long, slim form allows quick, easy and safe removal of valve-stem oil-seals, even on 4-valve cylinder heads.

KL-0126-9.. Series Valve stem sealing ring installation drivers

Valve stem sealing rings can be installed without risk of damage when the valves have been removed, using assembly tool **KL-0126-991, KL-0126-992 or KL-0126-993**. The driver is located in the valve guide by the guide pin.

Available Valve stem sealing ring installation drivers.

Part-No.	Tip-Ø	Tip-Length	Seal ring-Ø	Tool-outside Ø	Application
KL-0126-991	5 mm	29 mm	11 mm	30 mm	Smart 3 / 4 Cyl. petrol
KL-0126-992	6 mm	29 mm	11 mm	24 mm	VW 5 Cyl.
KL-0126-993	6 mm	15 mm	11 mm	19,5 mm	Mercedes OM 642

Special versions can be produced with other dimensions.

KL-0126-999 Guide pin set for valve cover assembly (4 Pcs.)

For Mercedes 3- and 4- Cylinder petrol engines. e.g. Smart etc.

Attaching these conical guide pins prevents the sealing rings in the valve cover from being damaged as the valve cover is being installed.

KL-0125-71 Valve Lapper 29 / 35 mm

For Hand Lapping Valves.

Thick Hardwood handles for easy lapping.

Technical Data:

Valve disk-Ø:.....29 / 35 mm
Length:.....225 mm
Weight: .....60 g

KL-0125-70 Valve Lapper 16 / 21 mm

For Hand Lapping Valves.

Thick Hardwood handles for easy lapping.

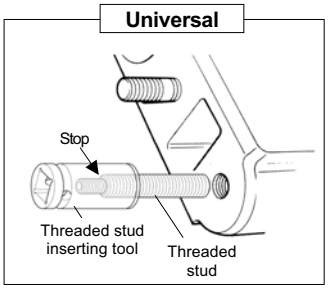
Technical Data:

Valve disk-Ø:.....16 / 21 mm
Length:.....210 mm
Weight: .....25 g

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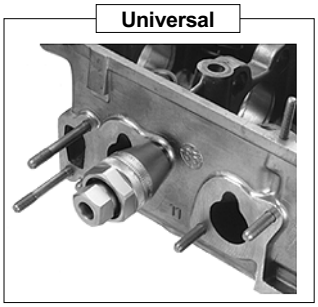
KL-0181-70 K





KL-0181-1





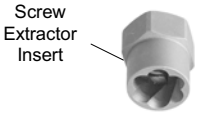
KL-0181-6





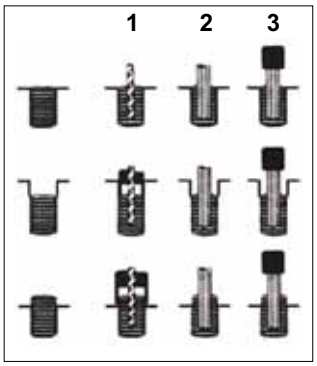
KL-0181-72 K





KL-0181-21 K





KL-0181-70 K Stud Inserting Tool Set
in Plastic Case

Applicable for M6, M8, M10, M12, M8x1 and M10x1 threaded studs.

For clean, rapid insertion of threaded studs, for instance during engine repairs.

consists of:

Part-No.	Description	Qty.
KL-0181-7006	Threaded stud inserting tool M6	1
KL-0181-7008	Threaded stud inserting tool M8	1
KL-0181-7010	Threaded stud inserting tool M10	1
KL-0181-7012	Threaded stud inserting tool M12	1
KL-0181-7108	Threaded stud inserting tool M8x1	1
KL-0181-7110	Threaded stud inserting tool M10x1	1
KL-4990-1004	Plastic case with foamed material liner	1

Technical Data:

Weight: ..... 1250 g Drive: ..... 1/2" ☐ Length: ... 52 mm
Measure plastic case: 275 x 230 x 83 mm

KL-0181-1 Stud Tool

Universal tool for studs with diameter 6 - 12 mm.

Advantages:

• Infinitely adjustable. • Operates in the most confined space. • Ideal also for bolts with rusted or stripped threads • Also for bolts with undersize.

KL-0181-6 Stud Extractor and Inserting
Tool Set (5 Pcs.)

For removal and replacement of threaded studs.
Right- or Left-Hand Thread.

Weight: ..... 1,15 kg Drive outer: .... 21 mm hex.
Drive inner: ..... ½"☐

consists of:

Part-No.	Description
KL-0181-51	for Ø 6 mm
KL-0181-52	for Ø 7 mm
KL-0181-53	for Ø 8 mm

Part-No.	Description
KL-0181-54	for Ø 10 mm
KL-0181-55	for Ø 12 mm
KL-0181-5001	Plastic case

KL-0181-72 K Screw Extractor Set

To extract screws, nuts and bolts when locating threads or hexagons are damaged.

Due to the special insert design (tapered and special left section) both screws and nuts and bolts can be easily loosen and removed.

Specification (Insert sizes)**:**
1/4" (6,3mm); 5/16" (8mm); 3/8" (9,5mm); 10mm;
7/16" (11mm); 12mm; 1/2" (12,5mm); 13mm; 9/16" (14mm);
5/8" (16mm); 17mm; 11/16" (17,5mm); 3/4" (19mm)
Drive:..... 3/8"☐ and hex.

KL-0181-21 K Screw Drill Set

To remove broken screws and thread bolts - thread M5 - M16.

Procedure:

1. Open the broken bolt (or screw) by drilling (use boring bush if necessary). 2. Drive in the pin. 3. Place the nut on the pin and extract by means of a screw-wrench.

Spare Parts/Accessories:

Part No.	Description	Qty.
KL-0181-2112	Drilled pin set for driller Ø: 3,2 mm (5 pcs)	1
KL-0181-2122	Drilled pin set for driller Ø: 4,8 mm (5 pcs)	1
KL-0181-2132	Drilled pin set for driller Ø: 6,4 mm (5 pcs)	1
KL-0181-2142	Drilled pin set for driller Ø: 8,0 mm (5 pcs)	1
KL-0181-2152	Drilled pin set for driller Ø: 8,8 mm (5 pcs)	1

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KL-0185-1

VW-Audi





KL-0185-2



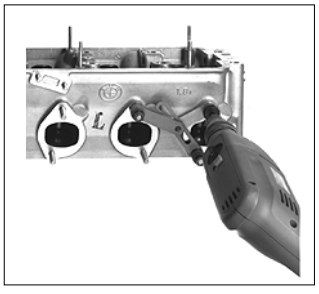


KL-0185-3



KL-0185-5





KL-0185-1 Drilling Guide Set

For accurate removal of broken manifold studs on **VW and Audi** 4 and 5 cylinder water-cooled engines. (Male Thread M8)

Advantages:

- Great savings in time approximately 2-3 hours because cylinder head has not to be removed.
- Accurate removal of the old stud and cutting of the new thread.
- The drilling guide avoids the risk of damage to the cylinder-head.

Contents:

With 6,5 mm pre-drilling guide for M8 threads in storage case.

Entire Weight: ..... 1,6 kg

KL-0185-2 Drilling Guide Set

As **KL-0185-1** but with 4,0 mm and 8,5 mm pre-drilling guide instead of 6,5 mm. (Male Thread M8)

For drilling and tapping for the use of Heli-Coil inserts.

With plastic case

Entire Weight: ..... 1,7 kg

KL-0185-3 Drilling Guide Set

As **KL-0185-2** but also supplied complete with Heli-Coil insertion tool and 25 Heli-Coil thread inserts. (Male Thread M8)

With plastic case.

Entire Weight: ..... 2,3 kg

KL-0185-5 Drilling Guide Set (Universal)

This new universal adjustable drilling guide allows broken or sheared studs -especially on cylinder-heads or exhaust manifolds- to be quickly and accurately extracted, without the need to remove the cylinder-head.
(Male Thread M8 and M10)

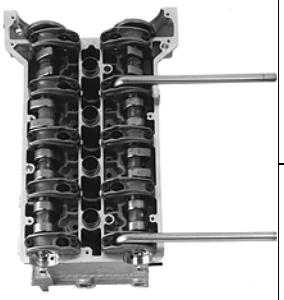
Time savings of between 2 and 4 hours can be achieved.

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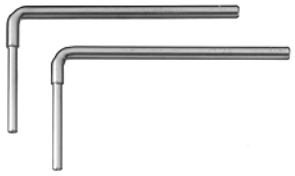
KL-1381-3



Citroën, Renault, Peugeot



KL-1381-4



KL-0140-60





KL-0140-61



Note: Wooden case (**KL-0140-6101**) for Precision-Hair-Edges as Accessory available. See chapter 10

KL-4021-3111

½"



VW-Audi



insert for injection-valve

KL-4021-3113

½"



VW-Audi



KL-1381-3 Support

For wet cylinder liner on **Citroën, Peugeot, Renault**-engines.

To avoid lifting off of the cylinder liners from the seats whilst under repair, it is essential to keep these under tension with the support **KL-1381-3**. This avoids leakage between the cylinder liner and engine block.

Hole Spacing: ..... 75 - 106 mm
Hole-Ø: ..... 12 mm

KL-1381-4 Lever for Cylinder Head (pair)

For removal of cylinder heads on engines with wet cylinder liner. Applicable on **Citroën, Peugeot, Renault.**

To avoid lifting off of the cylinder liner from the sealing seat in the engine block when removing the cylinder head, the cylinder head should not be lifted, but tilted sideways with the lever **KL-1381-4** and secured with support **KL-1381-3**.

Pin-Ø: ..... 12 mm

KL-0140-60 Precision-Hair-Edges 500 mm

Hair-edges hardened, ground, lapped, with heat-insulated handle. For fitting Cylinder Heads up to 4 Cylinders.

Description: ..... Stainless Steel
Section: ..... 40 × 7 mm
Length: ..... 500 mm
Weight: ..... 960 g

KL-0140-61 Precision-Hair-Edges 600 mm

As **KL-0140-60** but for fitting Cylinder Heads up to 6 Cylinders.

Length: ..... 600 mm
Weight: ..... 1200 g

KL-4021-3111 Socket Insert 11 mm hex

Suitable for VW- Audi, Seat, Škoda petrol engines.

The special socket **KL-4021-3111** allows the removal and replacement of the plastic insert for Injector Valves on **VW-Audi, Seat and Škoda** petrol engines.

Drive: ..... 1/2" □
Length: ..... 100 mm
Hex: ..... 11 mm

KL-4021-3113 Socket Insert 13 mm hex

Suitable for VW- Audi, Seat, Škoda 4 Cylinder TDI PD engines.

The special socket **KL-4021-3113** allows quick and trouble-free loosening and tightening of the central retaining bolt of the Fuel Cooling Unit - example when replacing the Fuel Filter.

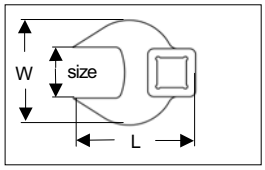
This special socket may also be used to remove and replace the brass insert on Injector Valves on Audi petrol engines 1990 - onwards.

Drive: ..... 1/2" □
Length: ..... 100 mm
Hex: ..... 13 mm

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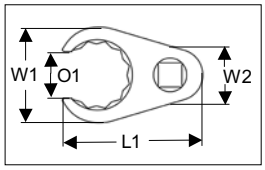
KL-4417-900





KL-4072-301 / KL-4072-302

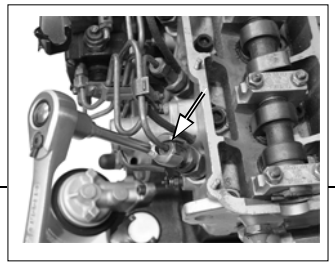




KL-4072-321

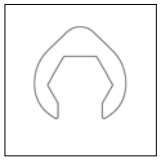






KL-4071-311





KL-4417-900 Crow Foot Spanner Set

Special chrome vanadium steel

Matt chrome finish. Drive:..... 3/8"☐

Specially designed to loosen and tighten nuts and bolts in confined areas.

consists of:

Part No.	Description	Socket size	Width (W)	Length (L)	Weight (g)
KL-4417-16	Crow Foot Spanner	16	34 mm	40 mm	40 g
KL-4417-17	Crow Foot Spanner	17	35 mm	42 mm	50 g
KL-4417-18	Crow Foot Spanner	18	37 mm	45 mm	60 g
KL-4417-19	Crow Foot Spanner	19	41 mm	48 mm	70 g
KL-4417-21	Crow Foot Spanner	21	43 mm	51 mm	80 g

KL-4072-301 Open ended ring spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened, for instance on compressed air or hydraulic lines. Drive:..... 1/2" ☐

consists of:

Part-No.	Hex.	Length [L1]	Hight [H1]	Width [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	16 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

KL-4072-302 Open ended ring spanner Socket Set

As **KL-4072-301** but Drive:..... 1/2" ☐

consists of:

Part-No.	Hex.	Length [L1]	Hight [H1]	Width [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3027	27	74 mm	25 mm	48 mm	34 mm	20 mm	360
KL-4072-3030	30	76 mm	25 mm	50 mm	34 mm	24 mm	360
KL-4072-3032	32	80 mm	25 mm	52 mm	34 mm	25 mm	360

KL-4072-321 Open ended ring wrench Socket

Specially designed to loosen and tighten nuts and bolts in confined spaces - e.g. Fuel Injector connections.

Technical Data:

Drive: ..... 1/2" ☐ Length: .....120 mm

consists of:

Part-No.	Hex. (12-point)	Description
KL-4072-3214	14	Open Ended ring wrench Socket
KL-4072-3216	16	Open Ended ring wrench Socket
KL-4072-3217	17	Open Ended ring wrench Socket
KL-4072-3218	18	Open Ended ring wrench Socket
KL-4072-3219	19	Open Ended ring wrench Socket

KL-4071-311 Open ended ring wrench Socket

As **KL-4072-321,** but as hex wrench and 80 mm long.

Technical Data:

Drive: ..... 1/2" ☐ Length: .....70 mm

consists of:

Part No.	Hex. (6-point)	Drive 3/8“	Drive 1/2“	Description
KL-4071-3112	12	X		Open Ended ring wrench Socket
KL-4071-3114	14	X		Open Ended ring wrench Socket
KL-4071-3116	16		X	Open Ended ring wrench Socket
KL-4071-3117	17	X		Open Ended ring wrench Socket
KL-4071-3118	18		X	Open Ended ring wrench Socket
KL-4071-3119	19		X	Open Ended ring wrench Socket

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8573-00

RAHSOL DREMOTEC



½"

40-200 N·m

DREMOMETER BC

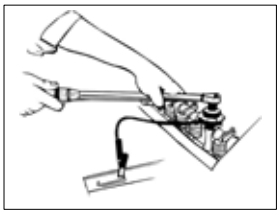
Code No.:	7685530
Article No.:	8573-00
Weight:	1,4 kg
Length:	553 mm
Range of work / measurement 1, Nm / lbf.ft (min/max):	40-200
Range of work / measurement 2, lbf.ft (min/max):	30-150
Scale divisions:	5 N·m / 5 lbf·ft

Note: ***Further RAHSOL DREMOTEC Products and Torque Wrenches see page 3.5-04 or in the GEDORE catalogue.***

KL-4090-302

½"



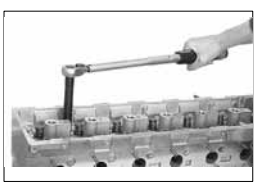


KL-4046-362

BMW, Mercedes

½"





8573-00 DREMOMETER BC Torque Wrench

½ 40-200N·m

CODE 7685530

Use:

- Controlled screw tightening in the range 40 - 200 N·m
- Ideal for the automotive industry
- Utilisation in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with 1/2" single square drive for controlled clockwise tightening (type BC no. 8573).
- 1/2" square drive with ball-locking mechanism DIN 3120 - A 12.5, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 5 N·m and 5 lbf·ft
- If ordering with pre-set-value locking and safety device please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

Scope of delivery:

- Torque wrench of type DREMOMETER
- Test certificate as per DIN EN ISO 6789
- Operating instructions (14-language) and service mini-CD
- Delivered in a robust black plastic box

6

KL-4090-302 Torque Angle Meter

For the Torque-to-Yield Fastener with angle degree information.

Ccommonly used for cylinder head bolts and other bolts where a torque angle is required.

Drive:.....1/2"□ Weight: .....340 g

KL-4046-362 Socket Set Torx® (4 Pcs.)

These Torx® Sockets in extended length with built-in magnet allow quick and easy removal and replacement of cylinder-head bolts with outer-Torx® profiles. **(e.g. BMW, Mercedes CDI engines, etc.)**

Specification:

Part-No:	Torx®	Length [mm]	Weight (g)
KL-4046-3610	E10	150	200
KL-4046-3612	E12	150	225
KL-4046-3614	E14	150	250
KL-4046-3618	E18	150	415

Drive..... 1/2" □

® = reg. trademark of Camcar-Textron Inc. USA

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KL-4041-300 K



KL-4041-30.. (1/2"□, 55 mm)



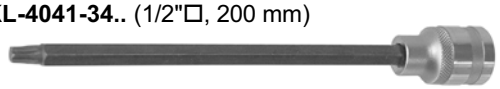
KL-4041-31.. (1/2"□, 100 mm)



KL-4041-33.. (1/2"□, 140 mm)



KL-4041-34.. (1/2"□, 200 mm)



KL-4021-300 K



KL-4021-30.. (1/2"□, 55 mm)



KL-4021-31.. (1/2"□, 100 mm)



KL-4021-33.. (1/2"□, 140 mm)



KL-4021-34.. (1/2"□, 200 mm)



KL-4041-300 K Socket Insert Set
Drive 1/2", Torx®, 32 pcs.

Consists of:

Socket Insert, Drive 1/2"□, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4041-3020	T20	KL-4041-3045	T45
KL-4041-3025	T25	KL-4041-3050	T50
KL-4041-3027	T27	KL-4041-3055	T55
KL-4041-3030	T30	KL-4041-3060	T60
KL-4041-3040	T40	KL-4041-3070	T70

Socket Insert, Drive 1/2"□, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4041-3120	T20	KL-4041-3145	T45
KL-4041-3125	T25	KL-4041-3150	T50
KL-4041-3127	T27	KL-4041-3155	T55
KL-4041-3130	T30	KL-4041-3160	T60
KL-4041-3140	T40	KL-4041-3170	T70

Socket Insert, Drive 1/2"□, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4041-3340	T40	KL-4041-3355	T55
KL-4041-3345	T45	KL-4041-3360	T60
KL-4041-3350	T50	KL-4041-3370	T70

Socket Insert, Drive 1/2"□, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4041-3440	T40	KL-4041-3455	T55
KL-4041-3445	T45	KL-4041-3460	T60
KL-4041-3450	T50	KL-4041-3470	T70

KL-4041-3099 **Plastic case** (empty) for KL-4041-300 K

® = reg. trademark of Camar-Textron Inc. USA

KL-4021-300 K Socket Insert Set
Drive 1/2", hex, 30 pcs.

Consists of:

Socket Insert, Drive 1/2"□, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4021-3005	hex 5	KL-4021-3012	hex 12
KL-4021-3006	hex 6	KL-4021-3014	hex 14
KL-4021-3007	hex 7	KL-4021-3017	hex 17
KL-4021-3008	hex 8	KL-4021-3019	hex 19
KL-4021-3010	hex 10		

Socket Insert, Drive 1/2"□, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4021-3105	hex 5	KL-4021-3110	hex 10
KL-4021-3106	hex 6	KL-4021-3111	hex 11
KL-4021-3107	hex 7	KL-4021-3112	hex 12
KL-4021-3108	hex 8	KL-4021-3113	hex 13

Socket Insert, Drive 1/2"□, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4021-3305	hex 5	KL-4021-3310	hex 10
KL-4021-3306	hex 6	KL-4021-3312	hex 12
KL-4021-3307	hex 7	KL-4021-3314	hex 14
KL-4021-3308	hex 8		

Socket Insert, Drive 1/2"□, Length 200 mm

Part-No..	Size	Part-No.	Size
KL-4021-3405	hex 5	KL-4021-3408	hex 8
KL-4021-3406	hex 6	KL-4021-3410	hex 10
KL-4021-3407	hex 7	KL-4021-3412	hex 12

KL-4021-3099 **Plastic case** (empty) for KL-4021-300 K

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KL-4031-300 K



KL-4031-30.. (1/2"☐, 55 mm)



KL-4031-31.. (1/2"☐, 100 mm)



KL-4031-33.. (1/2"☐, 140 mm)



KL-4031-34.. (1/2"☐, 200 mm)



KL-4051-300 K



KL-4051-30.. (1/2"☐, 55 mm)



KL-4051-31.. (1/2"☐, 100 mm)



KL-4051-33.. (1/2"☐, 140 mm)



KL-4051-34.. (1/2"☐, 200 mm)



KL-4031-300 K Socket Insert Set
Drive 1/2", XZN, 26 pcs.

Consists of:

Socket Insert, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4031-3005	M5	KL-4031-3010	M10
KL-4031-3006	M6	KL-4031-3012	M12
KL-4031-3008	M8	KL-4031-3014	M14
KL-4031-3009	M9	KL-4031-3016	M16

Socket Insert, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4031-3105	M5	KL-4031-3110	M10
KL-4031-3106	M6	KL-4031-3112	M12
KL-4031-3108	M8	KL-4031-3114	M14
KL-4031-3109	M9		

Socket Insert, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4031-3305	M5	KL-4031-3310	M10
KL-4031-3306	M6	KL-4031-3312	M12
KL-4031-3308	M8	KL-4031-3314	M14
KL-4031-3309	M9		

Socket Insert, Drive 1/2"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4031-3408	M8	KL-4031-3412	M12
KL-4031-3410	M10	KL-4031-3414	M14

KL-4031-3099 **Plastic case** (empty) for KL-4031-300 K

KL-4051-300 K Socket Insert Set
Drive 1/2", RIBE®, 32 Pcs.

Consists of:

Socket Insert, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4051-3005	M5	KL-4051-3010	M10
KL-4051-3006	M6	KL-4051-3012	M12
KL-4051-3007	M7	KL-4051-3013	M13
KL-4051-3008	M8	KL-4051-3014	M14
KL-4051-3009	M9		

Socket Insert, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4051-3105	M5	KL-4051-3110	M10
KL-4051-3106	M6	KL-4051-3112	M12
KL-4051-3107	M7	KL-4051-3113	M13
KL-4051-3108	M8	KL-4051-3114	M14
KL-4051-3109	M9		

Socket Insert, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4051-3308	M8	KL-4051-3312	M12
KL-4051-3309	M9	KL-4051-3313	M13 (FIAT)
KL-4051-3310	M10 (VW)	KL-4051-3314	M14
KL-4051-3311	M10 (FIAT)		

Socket Insert, Drive 1/2"☐, Length 200 mm

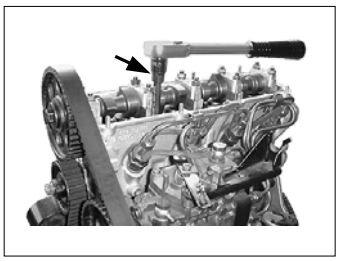
Part-No.	Size	Part-No.	Size
KL-4051-3408	M8	KL-4051-3412	M12
KL-4051-3409	M9	KL-4051-3413	M13 (FIAT)
KL-4051-3410	M10 (VW)	KL-4051-3414	M14
KL-4051-3411	M10 (FIAT)		

KL-4051-3099 **Plastic case** (empty) for KL-4051-300 K

® = reg. trademark of Richard Bergner GmbH & Co. KG

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KL-4051-331 A





Fiat

½"

KL-4051-331 A Socket Insert Set RIBE®

To remove and re-tighten cylinder-head retaining bolts e.g. on **Fiat** engines with RIBE-profile.

Specification:

Part-No.	RIBE®	Length [mm]	Weight (g)
KL-4051-3007	M7	55	80
KL-4051-3008	M8	55	80
KL-4051-3311	M10 (FIAT)	140	100
KL-4051-3312	M12	140	100
KL-4051-3313	M13 (FIAT	140	100
KL-4051-3314	M14	140	100

Drive: .....1/2" □

® = reg. trademark of Richard Bergner GmbH & Co. KG

KL-4051-3310

VW-Audi



½"

KL-4051-3310 Socket Insert RIBE® M10

Ideal to remove and re-tighten cylinder-head retaining bolts on **VW-Audi** engines with RIBE similar profile.

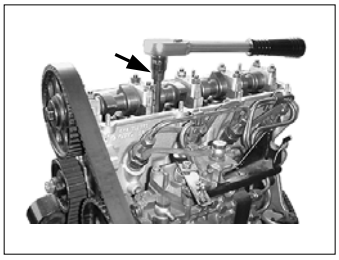
Part-No.	RIBE®	Length [mm]	Weight (g)
KL-4051-3310	M10 (VW)	140	100

Drive: .....1/2" □

® = reg. trademark of Richard Bergner GmbH & Co. KG

KL-4054-701 K





KL-4054-701 K Socket Insert Set RIBE®
with plastic case

Consists of:

Bit-Holder, carrier of the screwdriver Inserts,
⬢ 10 mm hex; Drive 1/2"□

Bit-Holder, carrier of the screwdriver Inserts,
⬢ 10 mm hex; Drive 3/8"□

Bit Insert,
Drive 10 mm hex, Length 30 mm
Size: 4; 5; 6; 7; 8; 9; 10; 12; 13; 14

Bit-Insert,
Drive 10 mm hex, Length 75 mm
Size: 4; 5; 6; 7; 8; 9; 10; 12; 13; 14

Plastic case: 235 x 140 x 45 mm

® = reg. trademark of Richard Bergner GmbH & Co. KG

KL-4031-3309

Toyota, Daihatsu



½"

KL-4031-3309 Socket Insert XZN-M9, 140 mm, 1/2"

Applicable for: **jap. cars e.g. Daihatsu, Toyota with petrol engines etc.**

Ideal for slackening and tightening cylinder head bolts, e.g. on **Japanese passenger-car engines** with XZN M9 thread profile.

The 140 mm length is sufficient for removing and inserting even recessed, hard-to-reach XZN-M9 cylinder head bolts without difficulty.

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KL-4061-101

VW-Audi, Mercedes, Rover, MG

1/4"

5-Point

Mercedes (Atego, Actros)





KL-4064-601 K

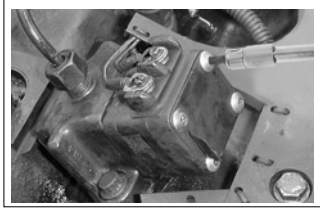


VW-Audi, Mercedes, Rover, MG

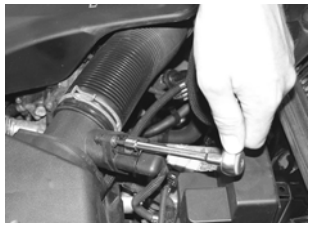
1/4"

5-Point

Pumps for pump-line-injector systems on **Mercedes commercial vehicles.**



VW-Audi **airflow meters**.

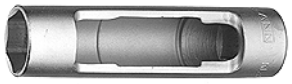


KL-0369-610



1/2"

KL-0369-10



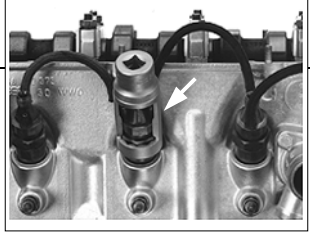
1/2"

KL-0511-1



1/2"

BMW, Mercedes, VW, Alfa Romeo, Chrysler, etc.



KL-0511-2



1/2"

KL-4061-101 Socket Insert Set (Five point), 1/4"

7 piece Socket Set on 1/4" ☐ Storage Rail

For new 5 point tamper-proof bolts.

Suitable e.g. for:

- **Pumps in pump-line-injection systems on Mercedes commercial vehicles (e.g. Atego, Actros).**
- **Mercedes outside mirror.**
- **Mass Air Flow Sensor VW-Audi**
- **Immobiliser control unit (EWS3) on Rover 75 and MG ZT.**

consists of:

Socket Inserts Five point with bore:

Size: 10, 15, 20, 25, 27, 30, 40
Drive: ..... 1/4" ☐
Storage Rail with 7 Clips

KL-4064-601 K Socket Insert Set (Five point)

9 screwdriver inserts in plastic case.

For loosening and tightening the new 5 point tamper-proof bolts.

Suitable e.g. for:

- **Pumps in pump-line-injection systems on Mercedes commercial vehicles (e.g. Atego, Actros).**
- **Mercedes outside mirror.**
- **Mass Air Flow Sensor VW-Audi**
- **Immobiliser control unit (EWS3) on Rover 75 and MG ZT.**

consists of:

9x Bit Insert, , hex. 1/4" drive.
1x Bit Holder, hex.1/4"; 1/4" drive (to insert the screwdriver bits).
1x Plastic case

Total weight: ..... 100 g
Size: 10, 15, 20, 25, 27, 30, 40, 45, 50
Drive (Insert): ..... hex. 1/4"
Drive (Bit Holder): ..... ☐ 1/4"
Length (Insert): ..... 25 mm
Dimension (Plastic case) ..... 114x53x21 mm

KL-0369-610 Injector Socket (22mm, bihex)

Hex special socket cut away on two sides, for removing and inserting diesel engine injectors without damaging the fuel return pipes.

Specially applicable for VW-Audi, Opel. Drive: ..... ½"☐

KL-0369-10 Injector Socket (22 mm, hex)

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines. Drive: ..... ½"☐

Application: VW-Audi, BMW, Ford, Opel/Vauxhall, Rover, Mercedes, Seat, Volvo, etc.

KL-0511-1 Injector Socket (27 mm, bihex)

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines. For removal and replacement of injectors on. Drive: ..... ½"☐

Application: BMW (e.g. M21, M41, M51) as well as Ford, VW and Mercedes diesel engines.

KL-0511-2 Injector Socket (28 mm, bihex)

Application: Alfa Romeo; Chrysler; Rover; MAN 2,5 TD

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines.

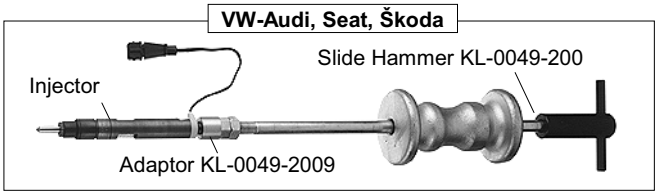
Drive: ..... 1/2" ☐ Size: ..... 28 mm

6

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KL-0049-2009





KL-0049-200



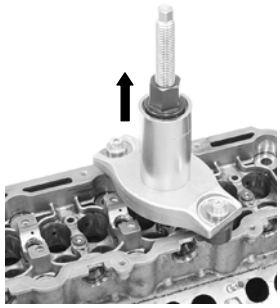
KL-0489-11





Opel Diesel

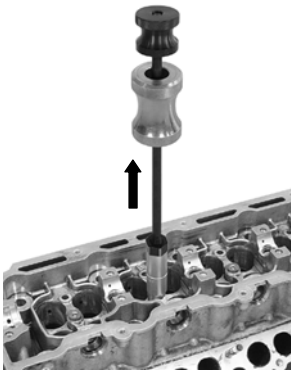
Injector extraction



KL-0489-10



Opel Diesel



KL-0049-2009 Adaptor M14 to M14×1,5

For the Slide Hammer **KL-0049-200**, to dismount the injector at e.g. **VW-Audi TDI** engines.

KL-0049-200 Slide Hammer Basic Tool

Slide Hammer Weight: ..... 2,35 kg
Length: ..... 480 mm

KL-0489-11 Injector nozzle puller with spindle

Suitable for Opel Diesel engines, e.g. 2,2 L

For accurate removal of injector nozzles without risk of damage.

If the bridge-type puller and spindle are used, even injector nozzles that are a very tight fit can be removed in just a few minutes.

Technical Data:

Connecting thread (injector nozzle): ..... M17x0,75 mm
Width (puller bridge): ..... 136 mm

KL-0489-10 Injector nozzle puller with slide hammer

Suitable for Opel Diesel engines, e.g. 2,2 L

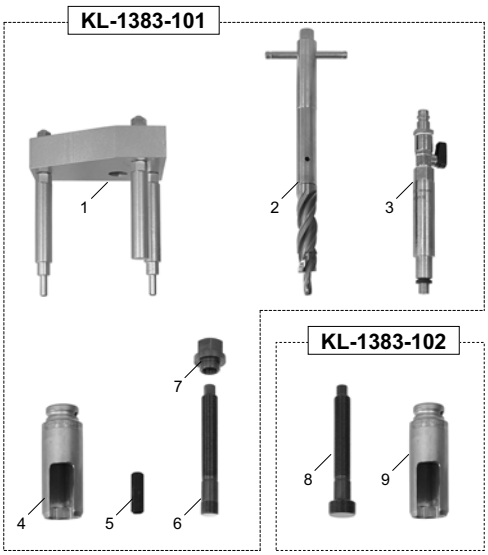
Injection nozzles that do not fit very tightly can be removed in just a few minutes.

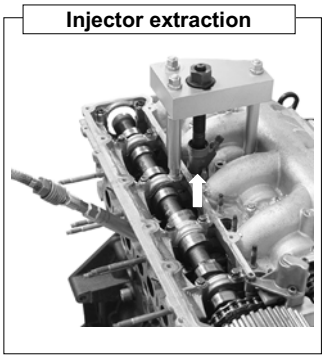
Technical Data:

Slide Hammer Weight: ..... 0,9 kg
Connecting thread (injector nozzle): ..... M17x0,75 mm
Length: ..... 185 mm

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KL-1383-10 K

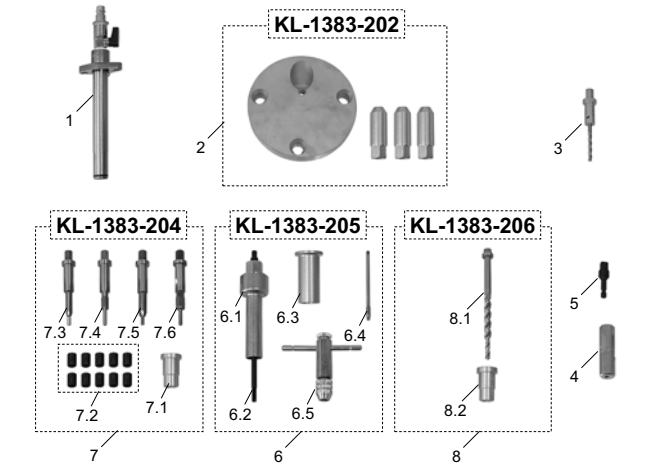


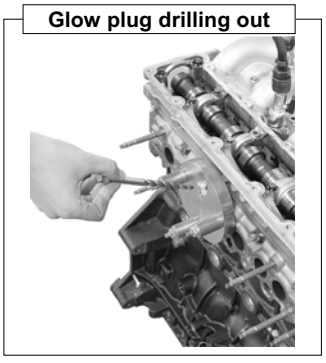


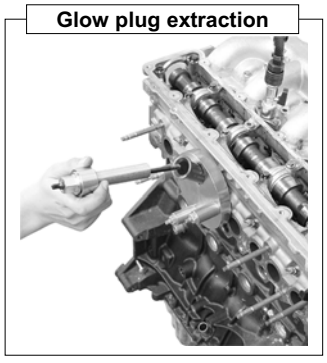


Note: The Tool Set is being supplied in a plastic case.

KL-1383-20 K







Note: The Tool Set is being supplied in a plastic case.

KL-1383-10 K Nozzle Extractor Set
(German Utility Model)

Suitable for PSA 2,0 (110, 135 HP) HDI engines e.g. Peugeot, Citroën etc. (Engine code DW10)

The nozzle extractor set **KL-1383-10 K** allows the removal from vehicles of tightly fit injection *nozzles without having to remove the cylinder head,* as well as the cleaning of the nozzle location hole and seat.
The use of a special pulling bridge and of the feed rod allows the fast and easy nozzle removal. The compressed air adaptor prevents impurities from entering the combustion chamber.

Specification:

Pos.	Part-No.	Description	Qty.
	KL-1383-10 K	**Nozzle Extractor Set**	**1**
	consists of:		
	KL-1383-101	**Nozzle Extractor Set for Peugeot / Citroën 110HP**	**1**
	KL-1383-102	**Supplement Kit for Peugeot / Citroën 135HP**	**1**
	KL-1383-1090	Plastic storage case	1

Pos.	Part-No.	Description	Qty.
	KL-1383-101	**Nozzle Extractor Set for Peugeot / Citroën 110HP**	**1**
	consists of:		
1	KL-1383-103	Extractor Base Tool	1
2	KL-1383-104	Milling tool for injector nozzle seat and bore	1
3	KL-0369-55 A	Compressed air adaptor for injector nozzle bore M10x1	1
4	KL-0369-461	Special Socket Insert 29mm hex	1
5	KL-0369-4505	Special Bit Insert 10 mm hex	1
6	KL-0369-4606	Spindle	1
7	KL-0369-4503	Shoulder Nut M16x1,5	1

Pos.	Part-No.	Description	Qty.
	KL-1383-102	**Supplement Kit for Peugeot / Citroën 135HP**	**1**
	consists of:		
8	KL-1383-1021	Spindle M25x1	1
9	KL-1383-1022	Special Socket Insert 25mm hex, ½ drive	1

KL-1383-20 K - Glow Plug Tool Set

Suitable for PSA 2,0 (110, 135 HP) HDI engines. e.g. Peugeot, Citroën etc. (Engine code DW10)

The glow plug tool set **KL-1383-20 K** enables the correct removal or drilling out of damaged glow plugs and the recutting the original M10x1 thread as well as the repair of the damaged glow plug retaining M10x1 thread through drilling out M12x1 thread without removing the cylinder head. The new glow plug shall be engaged in the cylinder with an insert nut (M12x1 on M10x1).

Specification:

Pos.	Part-No.	Description	Qty.
	KL-1383-20 K	**Glow Plug Tool Set Peugeot / Citroën**	**1**
	consists of:		
1	KL-1383-201	Compressed air adapter for injector nozzle bore Ø 17.1 mm	1
2	KL-1383-202	Tool holding fixture unit	1
3	KL-1383-203	Milling tool for Glow Plug electrode	1
4	KL-0369-300	Drum-type turning tool	1
5	KL-4007-2510	Adapter for power drill 3/8" square socket	1
6	**KL-1383-205**	**Drill Tool Set for Glow Plug tube**	**1**
7	**KL-1383-204**	**Drill Tool Set for Glow Plug Bore**	**1**
8	**KL-1383-206**	**Reaming Tool Set for Glow Plug Port**	**1**
	KL-1383-2090	Plastic storage case	1

Pos.	Part-No.	Description	Qty.
6	**KL-1383-205**	**Drill Tool Set for Glow Plug tube**	**1**
	consists of:		
6.1	KL-0369-3050	Extractor (Base Tool)	1
6.2	KL-1383-2052	Tie bolt ¼"-20 UNC, (185mm long)	1
6.3	KL-1383-2051	Base Tool guide bushing	1
6.4	KL-0369-3056	Thread tap ¼"-20 UNC with drill-bit tip	1
6.5	KL-0369-306	Tool holder with square socket 2,4 - 5,5	1

Pos.	Part-No.	Description	Qty.
7	**KL-1383-204**	**Drill Tool Set for Glow Plug Bore**	**1**
	consists of:		
7.1	KL-1383-2041	Drill guide bushing	1
7.2	KL-1383-2042	Set (10) of threaded sleeves M10x1, 26 mm long	1
7.3	KL-0369-3011	Core drill Ø 9.1 mm for M10x1 thread	1
7.4	KL-0369-3012	Thread tap M10x1	1
7.5	KL-0369-3021	Core drill Ø 11.1 mm M12x1 thread	1
7.6	KL-0369-3022	Thread tap M12x1	1

Pos.	Part-No.	Description	Qty.
8	**KL-1383-206**	**Reaming Tool Set for Glow Plug Port**	**1**
	consists of:		
8.1	KL-1383-2061	Reamer Ø 5.8 mm	1
8.2	KL-1383-2062	Reamer guide bushing (Ø 5.8 mm)	1

KL-1383-21 - Glow Plug Tool Set (not ill.)

Suitable for Peugeot, Citroën (2,0 HDI [110, 135 HP]) etc.

Similar to **KL-1383-20 K** but not for thread repair.
Consists of: Part-No. (see KL-1383-20): 2; 3; 4; 5; 6; 7.1; 7.3; 7.4; 8.

Accessory kit for glow plug tool CDI (not ill.)

KL-1383-211 - Accessory kit (big). Similar to **KL-1383-20 K** if the glow plug tool set **KL-0369-30 K** is already available.

KL-1383-212 - Accessory kit (small). Similar to **KL-1383-21** if the glow plug tool set **KL-0369-31 K** is already available.

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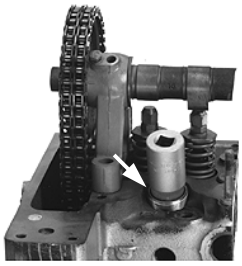
KL-0057-1



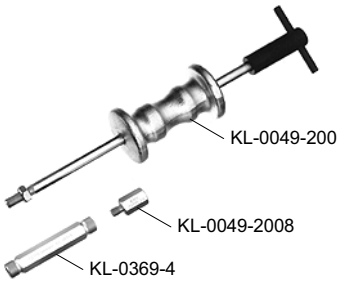
KL-0369-3



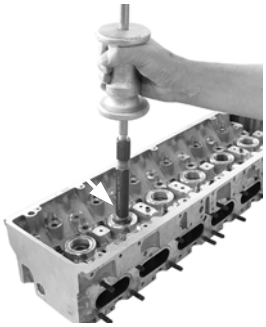
Mercedes



KL-0049-25



Mercedes



KL-0369-11



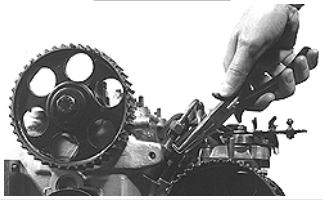
Mercedes



KL-0192-21



Mercedes



KL-0192-23



KL-0057-1 Spline Nut

For removal of the locking ring on the pre-combustion chamber on **Mercedes engines OM615, OM616 and OM617**.

Drive:..... ½“☐

KL-0369-3 Spline Nut

For removal of the locking ring on the pre-combustion chamber on **Mercedes engines OM601, OM602, OM603 OM604, OM605 and OM606.** Drive:..... ½“☐

KL-0049-25 Slide Hammer

To remove the pre-combustion chamber on **Mercedes engines OM615, OM616, OM617, OM601, OM602, OM603 OM604, OM605 and OM606.**

consists of:

Part No.	Description
KL-0049-200	Slide Hammer without adaptor
KL-0049-2008	Adaptor M14 to M12
KL-0369-4	Extractor Bolt (Inner Thread M12, Outer Thread M22x1 and M22x1,5)

KL-0369-11 Milling Cutter

The **KL-0369-11** milling tool should always be used to re-machine the pre-combustion chamber sealing face before the injector nozzle body is re-installed.

Mercedes diesel engines OM601, OM602, OM603, OM604, OM605 and OM606

The milling cutter KL-0369-11 consists of:

Part No.	Description
KL-0369-1101	Housing
KL-0369-1102	Spindle (Drive 1/2“■)
KL-0369-1103	Reamer Ø33 mm
KL-0369-1104	Screw M8 × 20
KL-0369-1105	Washer
KL-0369-1106	Circlip
KL-0369-1107	Protection Sleeve

Note:

Service of the injector housing seat is essential as soon as damaged or leaking. If the injector housing seat has not been treated before, this may be done with the cylinder head removed or still in place.

If the injector housing seat is treated a second time (noticeable by the marks on the cylinder head close to the injector housing or on the spacer rings), the cylinder head has to be removed, because the clearance of the injector housing (7,6-8,1 mm) can only be correctly measured with removed cylinder head. The clearance guarantees enough distance between piston surface and injector housing in TDC position.

KL-0192-21 Safety Clip Pliers

For removal of the Fuel Return Line from injectors on Diesel engines.

Applicable on Mercedes diesel engines OM604, OM605, OM606 with 4-valve technology.

KL-0192-23 Safety Clip Pliers

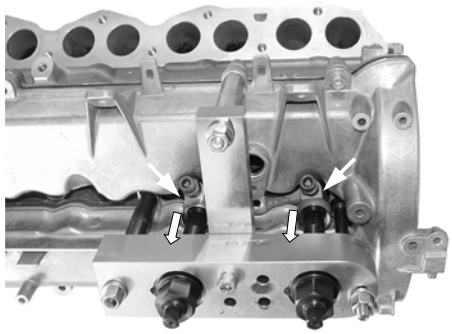
For removal of returning hoses on injection nozzles of diesel engines. Especially applicable on **Mercedes OM601, OM602, OM603 and VW-Audi** vehicles, where the injection nozzles are located very deep in the cylinder head.

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KL-0369-46 K



Pulling out injector nozzles



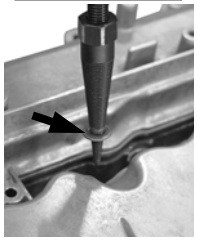
Note: The **KL-0369-46 K** injector nozzle puller is being supplied in a plastic case **KL-0369-4690**.

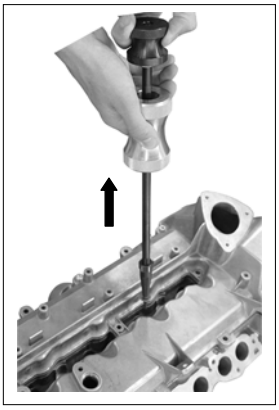
KL-0369-59

Mercedes CDI



Puller with sealing ring





KL-0369-46 K Injector Nozzle Puller

Mercedes CDI (German Utility Model)

Suitable for Mercedes CDI engine OM 668 e.g. A-class

The **KL-0369-46 K** injector nozzle puller allows the removal of even stubborn *injector nozzles without removing the cylinder head from the vehicle*.

As the removal of injector nozzles is particularly difficult on A-Class engines, two injector nozzles are always held by a single retaining clip, so that if an injector nozzle has to be removed, the second nozzle must be pulled out in parallel with it.

Due to the use of a special extraction bridge and the insertion of the two puller spindles, injector nozzles can be removed in an fast and easy way.

⇒ **Steps to remove the injector nozzles:**

Unscrew the nozzle head with the special wrench supplied with the set. Screw the puller spindles in the injector nozzles, remove the pre-installed extraction bridge on the valve cover and unscrew the collar nuts. Pull the nozzles out by turning the collar nuts.

Part No.	Description	Qty.
KL-0369-46 K	**Injector nozzle puller**	**1**
consists of:		
KL-0369-4601	Baseplate	1
KL-0040-3005	Circlip	2
KL-0021-0006	Axial bearing	2
KL-0369-4603	Plate	1
KL-0369-4602	Bolt	1
KL-0369-4604	Bolt	1
KL-0369-4605	Bolt	1
KL-0369-4606	Pull Spindle	2
KL-0369-4503	Shoulder nut	2
KL-0206-1011	Shoulder nut	3
KL-0282-5106	Screw	1
KL-0255-0011	Cylinder Pin	1
KL-0369-461 A	Impact Socket	1
KL-0369-4505	Sockets	1
KL-0369-4690	Plastic case	1

Note:
On **OM 668 CDI engines**, two injector nozzles are always held by a single retaining clip, so that if an injector nozzle has to be removed, the second nozzle must be pulled out in parallel with it.

KL-0369-59 Puller for sealing ring

Suitable for sealing rings with internal diameter 4 - 16 mm, e.g. injector nozzle sealing rings on Mercedes CDI engines.

The **KL-0369-59** puller extracts the sealing rings correctly, for example from between the injector nozzle and the cylinder head.

To pull out the sealing ring, screw the taper point of the tool into it, then remove with the impact-type puller.

Technical data:

Slide Hammer Weight: ..... 0,9 kg
Length: ..... 385 mm
Internal diameter of sealing ring: ..... 4 - 16 mm

6

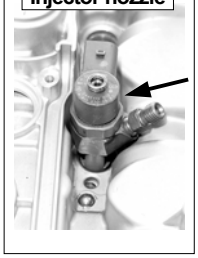
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KL-0369-45 K

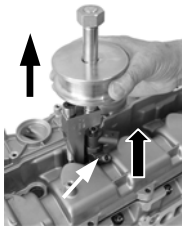
Mercedes CDI
OM 611, 612, 613



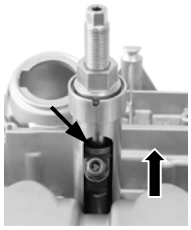
Injector nozzle



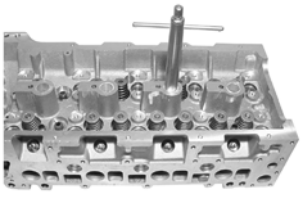
KL-0369-41



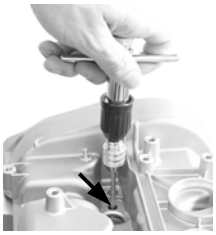
KL-0369-45



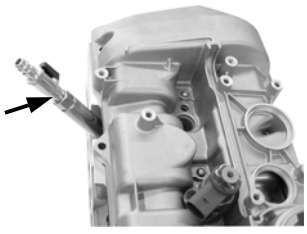
KL-0369-20 A



KL-0369-51



KL-0369-55 A



KL-0369-45 K Injector Nozzle Tool Set

Mercedes CDI engines
(German Utility Model)

Suitable for Mercedes CDI engines OM 611, 612, 613, etc.

The **KL-0369-45 K** injector nozzle Tool set (comprising nozzle puller **KL-0369-41**, nozzle puller **KL-0369-45**, milling cutter **KL-0369-20 A**, compressed air adapter **KL-0369-55 A**, thread tap **KL-0369-51** and plastic case **KL-0369-4590**) makes it possible to remove the injector nozzles correctly.

Nozzle puller **KL-0369-41** with impact weight is suitable for removing injector nozzles that are not too tight a fit, without dismantling them. Nozzle puller **KL-0369-45** with puller spindle is needed to remove nozzles that are a very tight fit. In both cases the cylinder head does not have to be removed. Milling cutter **KL-0369-20 A** is used to clean up the injector nozzle mounting bore, the nozzle seat and the small passage leading to the combustion chamber in a single operation.

If compressed air adapter **KL-0369-55 A** is screwed into the flame-start plug bore and air injected into the combustion chamber, this will prevent dirt or metal particles from entering the combustion chamber.

Thread tap **KL-0369-51** with drill tip is suitable for recutting and cleaning the thread for the nozzle holder. It is important to carry out this work before installing the injector nozzle again.

Part-No.	Description	Qty.
KL-0369-45 K	**Injector nozzle tool set**	**1**
consists of:		
KL-0369-41	Injector nozzle puller with slide hammer	1
KL-0369-45	Injector nozzle puller with spindle	1
KL-0369-20 A	Milling Tool for mounting hole and injector nozzle seat	1
KL-0369-55 A	Compressed air adapter for glow plug bore	1
KL-0369-51	Thread tap with drill-bit tip	1
KL-0369-4590	Plastic case	1

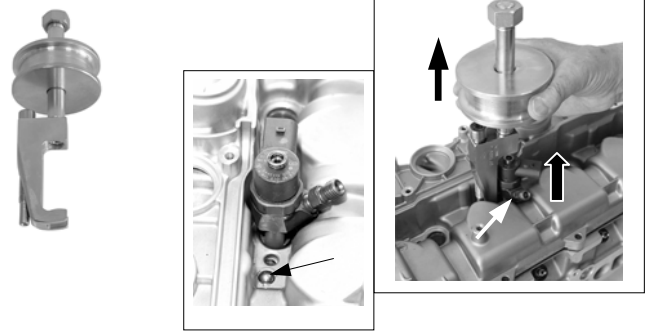
Note: Mercedes A-class CDI (OM668)

On OM 668 CDI engines, two injector nozzles are always held by a single retaining clip, so that if an injector nozzle has to be removed, the second nozzle must be pulled out in parallel with it.

For this work, the **KL-0369-46 K** injector nozzle puller, which is a new development, is needed. (see page 6.3-21)

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KL-0369-41



KL-0369-41 Injector nozzle puller
with slide hammer (German Utility Model)

Applicable for Mercedes CDI engines OM 611, 612, 613, etc.

With the **KL-0369-41** injection nozzle puller with impact weight, injection nozzles that do not fit very tightly can be pulled out without needing to take them apart or remove the cylinder block.

Thanks to its special design, the puller is additionally supported by the steel ball on the valve cover, which prevents the puller from tipping during the removal process.

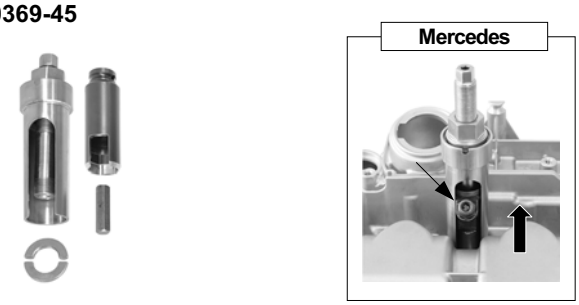
Specification:

Injector nozzle puller with slide hammer, pull rod M18,
Slide hammer 1,5 kg, Screw M18.

Entire Length:..... 250 mm

Accessories: KL-0049-31 Slide Hammer (Slide weight 4,8 kg)

KL-0369-45



KL-0369-45 Injector nozzle puller
with spindle (German Utility Model)

Applicable for Mercedes CDI engines OM 611, 612, 613, etc.

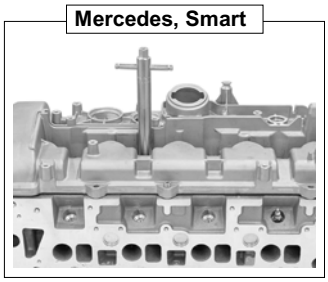
With the **KL-0369-45** injection nozzle puller with spindle, injection nozzles that fit *very tightly* can be pulled out without needing to remove the cylinder block.

⇒ **Procedure**: screw off the nozzle head, screw in the puller spindle, insert the support ring, push the support sleeve over the spindle and screw on the collar nut then pull out the nozzle by turning the collar nut.

Specification: Support sleeve, pull spindle, shoulder nut M16x1,5, Support ring, Special bit insert 10 mm hex, axial bearing, circlip SB35, Special socket insert 29 mm hex.

Entire Length:..... 150 mm

KL-0369-20 A



KL-0369-20 A Milling tool for mounting hole and injector nozzle seat

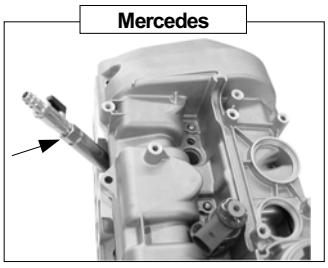
Applicable for Mercedes CDI engines OM611, 612, 613 and Smart R660.

In a single machining operation, the specially shaped milling cutter produces a clean finish on the injector mounting hole, the nozzle seat and the small aperture leading to the combustion chamber.

Important before assembly to prevent the risk of leaks between the cylinder head and the injector.

Drive: .....13 mm hex
Length:..... 235 mm

KL-0369-55 A

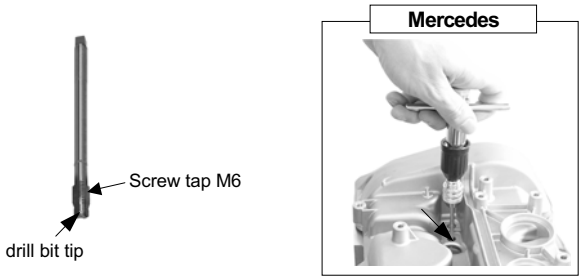


KL-0369-55 A Compressed air adaptor for glow plug bore

Suitable e.g. for Mercedes CDI engines OM 611, 612, 613, etc.

If compressed air adaptor **KL-0369-55 A** is screwed into the flame-start plug bore and air injected into the combustion chamber, this will prevent dirt or metal particles from entering the combustion chamber.

KL-0369-51



KL-0369-51 Thread tap with drill-bit tip

Applicable e.g. for Mercedes CDI engines OM 611, 612, 613, etc.

For recutting and cleaning the tapped hole to retain the injector nozzle holder. Important: this tool must be used before re-installing the injector nozzle.

Length:..... 100 mm
Thread: M6

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KL-0369-30 K

Mercedes

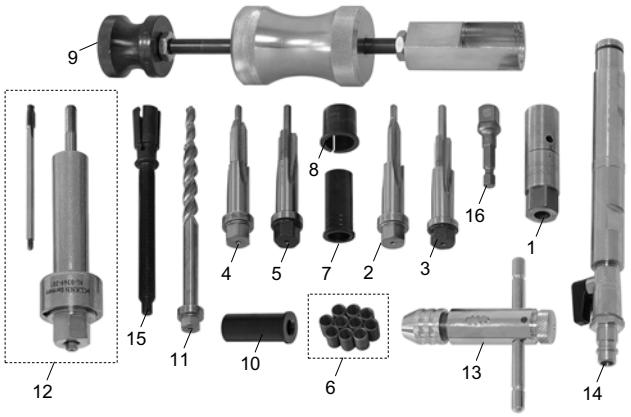


„Removing the glow plug and repairing the glow plug retaining thread“

Glow plug



Specification:



KL-0369-31 K

Mercedes

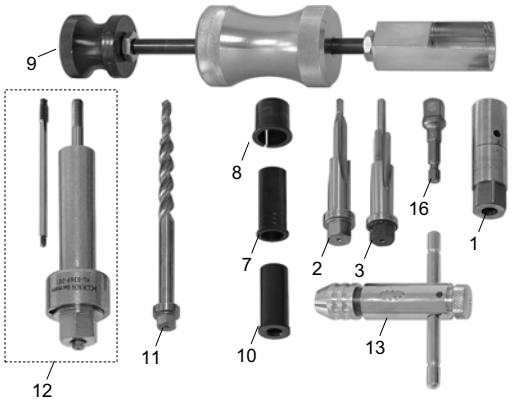


„Removing the glow plug “

Glow plug



Specification:



Note: Accessory kits to remove Peugeot, Citroën glow plugs, see page 6.3-19.

KL-0369-30 K Glow Plug Tool Set

for Mercedes CDI engines

(German Utility Model)

Suitable for Mercedes CDI engines OM 611, 612 and 613.

The glow plug tool set **KL-0369-30 K** enables the correct removal of burnt and/or stuck due to corrosion or torn off glow plugs as well as the repair of the glow plug retaining thread.

The cylinder head does not have to be removed.

Note: Screwing the compressed air adapter into the injector nozzle bore and injecting compressed air into the combustion chamber prevents dirt and metal particles from entering the conbustion chamber

Advantage:

- Large time saving and cost saving
- Clean working methods.
- The tool is easy to operate.

Weight: ..... 3,9 kg

Specification:

Pos.	Part No.	Description	Qty.
	KL-0369-30 K	**Glow Plug Tool Set**	**1**
	consists of:		
1	KL-0369-300	Drum-type turning tool for Ø 2.5 - 4.5 mm	1
2	KL-0369-3011	Core drill Ø 9.1 for M10x1 thread	1
3	KL-0369-3012	Thread tap M10x1	1
4	KL-0369-3021	Core drill Ø 11.1 for M12x1 thread	1
5	KL-0369-3022	Thread tap M12x1	1
6	KL-0369-3023	Set of threaded sleeves M10x1, 17 mm long	1
7	KL-0369-3013	Drill guide bushing	1
8	KL-0369-3014	Centring sleeve	1
9	KL-0369-303	Centring sleeve fitting/removing tool	1
10	KL-0369-3041	Reamer guide bushing (KL-0369-3042)	1
11	KL-0369-3042	Reamer	1
12	KL-0369-305	Glow plug tube extractor	1
13	KL-0369-306	Tool holder with square socket 2.4 - 5.5	1
14	KL-0369-56	Compressed air adapter for CDI injector nozzle bore	1
15	KL-0369-2013	Clamping pliers for preheat plug removal	1
16	KL-4007-2510	Adapter for power drill 3/8" square socket	1
	KL-0369-3090	Plastic case	1

KL-0369-31 Glow Plug Tool Set

for Mercedes CDI engines

(German Utility Model)

As KL-0369-30 K
however, it does **not** enable to repair the damaged glow plug retaining thread.

Suitable for Mercedes CDI engines OM 611, 612 and 613.

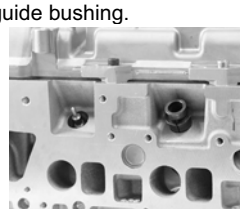
Weight ..... 3,3 kg

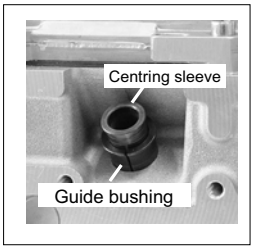
Specification:

Pos.	Part No.	Description	Qty.
	KL-0369-31 K	**Glow Plug Tool Set**	**1**
	consists of:		
1	KL-0369-300	Drum-type turning tool for Ø 2.5 - 4.5 mm	1
2	KL-0369-3011	Core drill Ø 9.1 for M10x1 thread	1
3	KL-0369-3012	Thread tap M10x1	1
7	KL-0369-3013	Drill guide bushing	1
8	KL-0369-3014	Centring sleeve	1
9	KL-0369-303	Centring sleeve fitting/removing tool	1
10	KL-0369-3041	Reamer guide bushing (KL-0369-3042)	1
11	KL-0369-3042	Reamer	1
12	KL-0369-305	Glow plug tube extractor	1
13	KL-0369-306	Tool holder with square socket 2.4 - 5.5	1
16	KL-4007-2510	Adapter for power drill 3/8" square socket	1
	KL-0369-3090	Plastic case	1

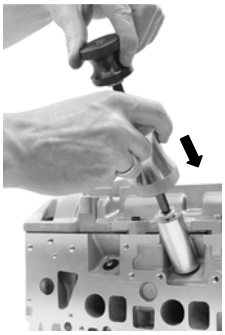
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Insert the centring sleeve with guide bushing.

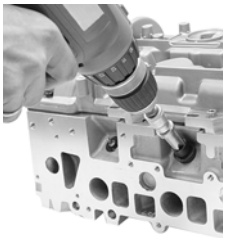




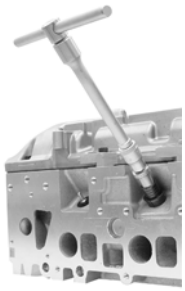
Locate centring sleeve and guide bushing firmly with the striker tool



Drill the glow plug head out to core hole diameter.



Tap the thread M10x1



Tap the thread in the preheat plug tube.



Pull out the preheat plug tube with the puller.

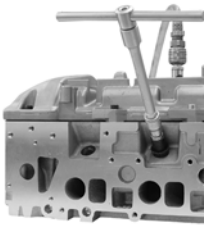


Clean the glow plug mounting bore and sealing seat.

“A“



“B“



Screw threaded sleeve on to glow plug.



Glow plug with the threaded sleeve



Install preheat plug with threaded sleeve.



Application KL-0369-30 K

The correct removal of burnt, corroded or broken-off glow plugs, and repairs to the preheat plug retaining thread without removing the cylinder head, still create almost insoluble problems for the mechanic.

The **KL-0369-30 K** glow plug tool set is used for precision removal or drilling out of damaged glow plugs to recut the original M10 x 1 thread or to repair a damaged M10 x 1 thread in the mounting bore for the glow plug by drilling it out to M12 x 1. The new glow plug is then inserted into the cylinder head with the aid of a threaded bushing (M12x1 to M10x1).

The puller in the tool set can be used to pull out the glow plug or the glow plug pin if it is a tight fit in the port.

Inserting the special guide and drilling sleeves at the glow plug bore in the cylinder head ensures accurate guiding and prevents damage to the cylinder head when the glow plug is being drilled out with the special drill bit, and when cleaning or renewing the glow plug thread. The compressed air adapter can be screwed into the injector nozzle bore and air injected into the combustion chamber (piston in cylinder being repaired must be at top dead centre on the working stroke, with the valves closed). This prevents dirt or metal particles from entering the combustion chamber. Before installing a new glow plug, clean the glow port and the seat for the seal with the three-stage reamer (supplied with the tool set), to remove carbonised oil deposits etc.

The cylinder head does not have to be removed.

Procedure KL-0369-30 K

⇒ ***Pulling the glow plug out*** *(if it can be unscrewed but is still a tight fit in the bore).*

⇒ ***Drilling out the glow plug thread to core-hole diameter and recutting the original M10x1 thread.***

A. Remove the centre electrode with the drum-type cutter.
B. Insert the centring sleeve with guide bushing.
C. Drill the glow plug head out to core-hole diameter.
D. Recut the M10x1 thread.
E. Cut the thread in the glow plug shaft.
F. Install the compressed air adapter.
G. Open the compressed air feed.
H. Pull the glow plug body out with the puller.
I. Clean the glow plug mounting bore and sealing seat with the reamer.

⇒ ***Renewing glow plug mounting thread in cylinder head (M10x1 to M12x1).***

A: Insert centring sleeve with guide bushing.
B: Drill out the damaged M10x1 thread.
C: Cut the new M12x1 thread.
D: Insert the glow plug with the threaded sleeve screwed on.

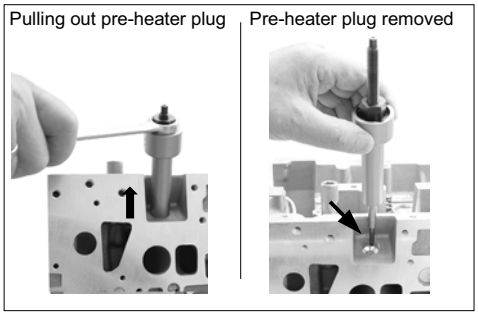
Note: Screwing the compressed air adapter into the injector nozzle bore and injecting compressed air into the combustion chamber prevents dirt and metal particles from entering the conbustion chamber.

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KL-0369-201 A

Mercedes



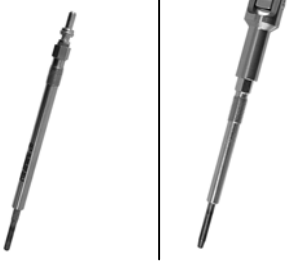


KL-0369-91

Mercedes CDI, Opel CDTI, Fiat/Lancia JTD



Glow Plug



KL-0369-92



Opel CDTI, Fiat JTD

KL-0369-9



3/8"

KL-0369-14



3/8"

KL-0369-7



3/8"

KL-0369-12



3/8"

KL-0369-201 A Glow plug puller

For glow plugs with 10 mm across flats on Mercedes CDI engines (OM 611, 612, 613 etc.)

For pulling out glow plugs after they have been unscrewed but are still located firmly in their holes.

Length:.....135 mm Drive:.....19 mm hex

KL-0369-91 Jointed Glow Plug Socket 8 mm

With built-in O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex.:.....8 mm Drive:..... 3/8"☐
Length:.....75 mm

Suitable for:

- **Mercedes CDI engines OM 640 and OM 642 e.g. A-class (2004 onwards) [W169], B-class [W245] etc.**
- **Opel 1,3 L CDTI engines e.g. Agila, Corsa C etc.**
- **Fiat 1,3 L JTD engines e.g. Doblo, Idea, Punto etc.**
- **Lancia 1,3 L JTD e.g. Ypsilon etc.**

KL-0369-92 Jointed Glow Plug Socket 9 mm

With built-in O-ring.

Hex.:.....9 mm Drive:..... 3/8"☐
Length:.....75 mm

Suitable for:

- **Opel 1,9 L CDTI engines e.g. Astra H, Signum, Vectra C etc.**
- **Fiat 1,9 L JTD 1,6V engines e.g. Stilo etc.**

KL-0369-9 Jointed Glow Plug Socket 10 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex:.....10 mm Drive:..... 3/8"☐
Length:.....65 mm

KL-0369-14 Jointed Socket Glow Plugs 10 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.
Application: **Mercedes CDI-Engines (OM611, 612, 613)**.

Hex:.....10 mm Drive:..... 3/8"☐
Length:.....70 mm

KL-0369-7 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex:.....12 mm Drive:..... 3/8"☐
Length:.....65 mm

KL-0369-12 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

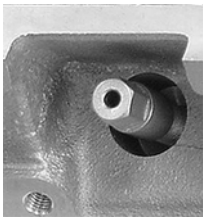
Hex:.....12 mm Drive:..... 3/8"☐
Length:.....70 mm

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KL-0369-15

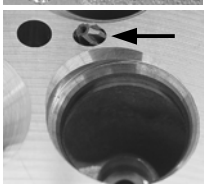


Mercedes



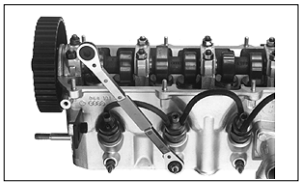
KL-0369-13





KL-0283-4 (8 / 12 mm)





KL-0127-2206

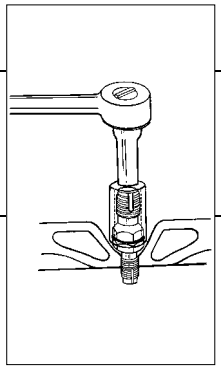


KL-0132-3



KL-0127-2207

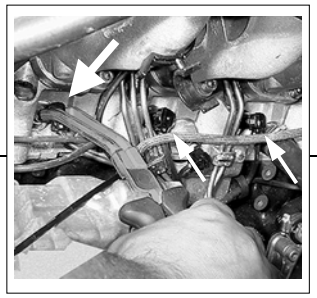




KL-0369-18



VW-Audi, BMW, Mercedes



KL-0369-19



VW-Audi, BMW, Mercedes

KL-0369-15 Reamer for Glow Plug

To ream out and clean the bore between the Glow Plug and combustion chambers.

⇒ Important if the engine is difficult to start.

Application: Mercedes CDI - Engines 4, 5 & 6 cylinder OM611, 612, 613, with Glow Plug threads M10x1.

Drive: ..... 10 mm hex
Glow Plug: ..... 6 mm

KL-0369-13 Reamer for Glow Plug

To ream out and clean the bore between the Glow Plug and pre-combustion chamber.

Application: Mercedes 4-Valve-engines OM604, OM605, OM606 with glow plug threads size M12x1,25.

Drive: ..... 13 mm hex
Glow Plug: ..... 7 mm

KL-0283-4 Glow Plug Spanner

Double-ended ratchet ring spanner 8 mm and 12 mm for removal and replacement glow plugs.

Universal use, especially for awkward to reach glow plugs.
(e.g. VW-Audi, BMW, Mercedes, Peugeot, Renault, etc.)

KL-0127-2206 Last Tap

For cleaning of plug threads size M10×1,0 and M12×1,25.

KL-0132-3 Last Tap

For cleaning of plug threads size M12×1,25 and M14×1,25.

KL-0127-2207 Last Tap

For cleaning of spark plug threads size M14×1,25 and M18×1,5.

KL-0369-18 Glow-Plug Connector Pliers
straight

To remove stubborn and hardly accessible glow plug connectors installed on the latest generation engines.

e.g. Mercedes, BWM, VW-Audi etc.

KL-0369-19 Glow-Plug Connector Pliers
angled

As **KL-0369-18** (Version angled at 90°)

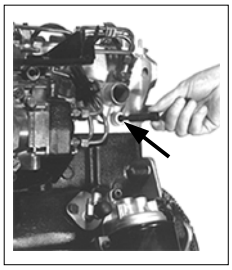
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KL-0132-5

Thread Inserts

VW-Audi / Mercedes OM604, 605, 606



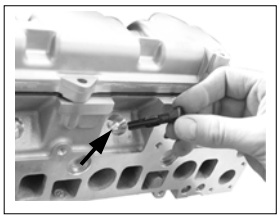


KL-0132-51

Thread Inserts

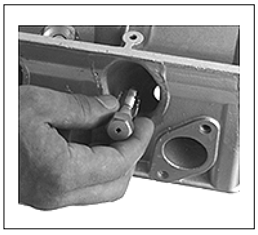
Mercedes OM611, 612, 613





KL-0132-41





Accessory:



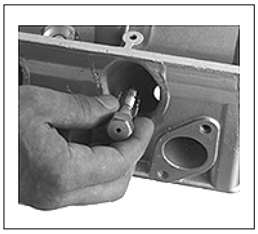
Screw Tap



Thread Inserts

KL-0132-42





Accessory:



Screw Tap



Thread Inserts

KL-0132-5 Glow Plug Thread Repair Kit
M12×1,25

Should the thread in the cylinder-head be damaged, special Thread Inserts (Inner-Thread M12x1,25) may be fitted using the **KL-0132-51** Thread Repair Kit.

consists of:

Part No.	Description	Qty.
KL-0132-501	Special Drill for Thread Insert M12x1,25	1
KL-0132-502	Special Thread Drill for Thread Insert M12x1,25	1
-	Thread Inserts M12×1,25 (8 pcs.) Length 12,7 mm	1
-	Wooden Case	1

Spare Parts:

Part No.	Description	Qty.
KL-0132-412	Thread Inserts M12×1,25 (10 pcs.) Length 12,7 mm	1

KL-0132-51 Glow Plug Thread Repair Kit
M10x1

Should the thread in the cylinder-head be damaged, special Thread Inserts (Inner-Thread M10x1 may be fitted using the **KL-0132-51** Thread Repair Kit.

Suitable for Mercedes OM611, 612 and 613 engines.

consists of:

Part No.	Description	Qty.
KL-0132-511	Thread Chaser M10x1	1
KL-0132-512	Thread Insert M10x1 (6 pcs.)	1
KL-0132-513	Special Drill for Thread Insert M10x1	1
KL-0132-514	Special Tap for Thread Insert M10x1	1
-	Wooden Case	1

KL-0132-41 Thread Repair Kit with case

For plug threads M12×1,25.

The repair kit is appropriate for repair of spark plug threads in aluminium cylinder heads. The tool kit contains a special screw tap to re-bore the old hole and cut a new thread M14×1,25 for installation of thread inserts M12×1,25.

consists of:

Part No.	Description	Qty.
KL-0132-411	Special Screw Tap for M12×1,25	1
-	Thread Inserts M12×1,25 (8 pcs.) Length 12,7 mm	1
-	Thread Inserts M12×1,25; Length 19 mm	8
-	Wooden Case	1

Accessory:

Part No.	Description	Qty.
KL-0132-412	Thread Inserts M12×1,25 (10 pcs.) Length 12,7 mm	1
KL-0132-413	Thread Inserts M12×1,25 (10 pcs.) Length 19 mm	1

KL-0132-42 Thread Repair Kit with case

As **KL-0132-41**, but for plug threads **M14×1,25**.

consists of:

Part No.	Description	Qty.
KL-0132-421	Special Screw Tap for M14×1,25	1
-	Thread Inserts M14×1,25 (10 pcs.) Length 12,7 mm	1
-	Thread Inserts M14×1,25 (10 pcs.) Length 19 mm	1
-	Wooden Case	1

Accessory:

Part No.	Description	Qty.
KL-0132-422	Thread Inserts M14×1,25 (10 pcs.) Length 12,7 mm	1
KL-0132-423	Thread Inserts M14×1,25 (10 pcs.) Length 19 mm	1

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KL-0127-42



KL-0127-41



KL-0127-43



KL-0127-44



KL-0127-45



KL-0127-46



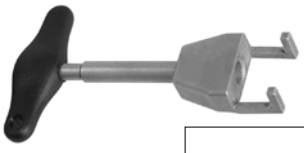
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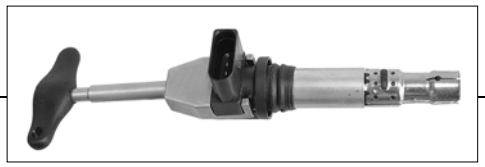


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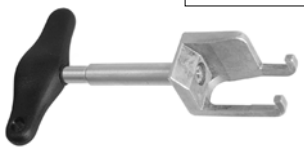


KL-0127-81

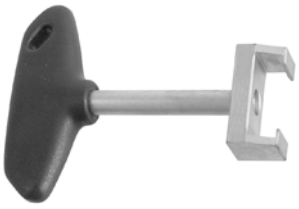




KL-0127-82



KL-0187-84





KL-0127-83



KL-0127-42 Jointed Spark-Plug Socket
14 mm

Suitable for Renault Clio 1,2 16V; Twingo 1,2 16V etc.

Length: ..... 80 mm
Hex: ..... O 14 mm
Drive: ..... 3/8"□
Weight: ..... 100 g

KL-0127-41 Spark-Plug Socket

Suitable for Renault Clio 1,2 16V; Twingo 1,2 16V etc.

Length: ..... 230 mm
Socket size: ..... O 14 mm
Drive: ..... 3/8" □

KL-0127-43 Spark-Plug Socket

Suitable for Citroën C5 HPI, Peugeot 406 HPI, Mini One etc.

Length: ..... 90 mm
Socket size: ..... O 14 mm
Drive: ..... 3/8" □

KL-0127-44 Spark-Plug Socket

Suitable for Citroën C5 HPI, Peugeot 406 HPI, Mini One etc.

Length: ..... 250 mm
Socket size: ..... O 14 mm
Drive: ..... 3/8" □

KL-0127-45 Spark-Plug Socket

Length: ..... 90 mm
Socket size: ..... O 16 mm
Drive: ..... 3/8" □

KL-0127-46 Spark-Plug Socket

Length: ..... 250 mm
Socket size: ..... O 16 mm
Drive: ..... 3/8" □

KL-4015-2016 Spark-Plug Socket Insert

Length: ..... 65 mm
Socket size: ..... O 16 mm
Drive: ..... 3/8" □

KL-4015-2021 Spark-Plug Socket Insert

Length: ..... 65 mm
Socket size: ..... O 21 mm
Drive: ..... 3/8" □

KL-0127-81 Spark-Plug cap puller

To remove and disengage spark plugs (power final stage) on VW-Audi injection engines.
Suitable e.g. for VW, Bora, Golf, New Beetle, Passat, Polo, Touran 1,4 / 1,6 L, Lupo 4-Zyl. FSI, Phaeton and T4.

Length: ..... 137 mm
Weight: ..... 145 g

KL-0127-82 Spark-Plug cap puller

To remove and disengage spark plugs (power final stage) on VW-Audi injection engines.
Suitable e.g. for VW, Bora, Golf, Passat, Sharan, Touareg, Phaeton and T5.

Length: ..... 134 mm
Weight: ..... 130 g

KL-0127-84 Spark-Plug cap puller

To remove and disengage spark plugs (power final stage) on VW-Audi injection engines.
Suitable for VW 8- and 12 cylinder engines e.g. Phaeton etc.

Length: ..... 118 mm
Weight: ..... 143 g

KL-0127-83 Spark-Plug cap puller

To remove and disengage spark plugs (power final stage) on VW-Audi injection engines.

Length: ..... 50 mm
Weight: ..... 84,5 g

6

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KL-0127-7





KL-0127-5



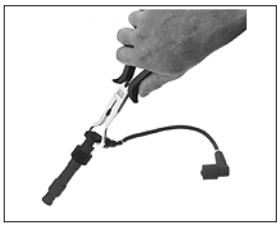


KL-0127-6



KL-0127-9





KL-0127-91



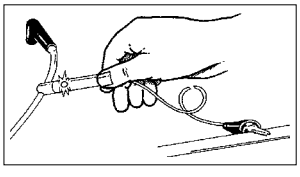


KL-0127-92



KL-0127-39





6

The Right Pliers for the Right Grip - Pliers for Spark Plugs

Makes exchanging spark plugs easier. Different designed spark plug pliers allow pulling off and putting on of spark plug connectors in every position and with hot engine.

Because of safety reasons, spark plugs connectors should not be pulled off when the engine is still running.

KL-0127-7 Spark Plug Pliers

Forged and with offset jaws for pulling off or putting on spark plug connectors, especially heat protection connectors on **VW, Audi, Opel/Vauxhall, Porsche**, etc.

KL-0127-5 Spark Plug Pliers

With 30° angled sleeve jaws for careful and safe removal and replacement of shrouds, especially for heat protection shrouds.

Applicable on almost every vehicle.

KL-0127-6 Spark Plug Pliers

With 10° angled, long sleeve jaws. Grooves in the jaws prevents from slipping off from the socket. The long jaws allow pulling off of very deep positioned spark plug connectors and offer additional safety distance to the hot engine.

Applicable on almost every vehicle.

KL-0127-9 Spark Plug Pliers

Application for: Audi, BMW, Mercedes, Opel/Vauxhall, VW.

KL-0127-91 Spark Plug Cap Puller

For Metal Spark-Plug Caps.

To release and detach Plug-Leads from inaccessible locations, such as VW-Audi, Mercedes, Smart etc.

In particular for VW 2,8 litre and 2,9 litre VR6 engines, also Audi 2,6 litre and 2,8 litre V6 engines.

Length:.....250 mm

KL-0127-92 Spark Plug Cap Puller

For Metal Spark-Plug Caps.

To release and detach Plug-Leads from inaccessible locations, such as VW-Audi, Mercedes, Smart etc.

Length:.....300 mm

KL-0127-39 Spark Plug Wire Tester

Quickly Locate Faulty Plug Wires. No Shock Hazard.

Now you can check spark plug wires without piercing the wires. Light flashes indicating sound wire.

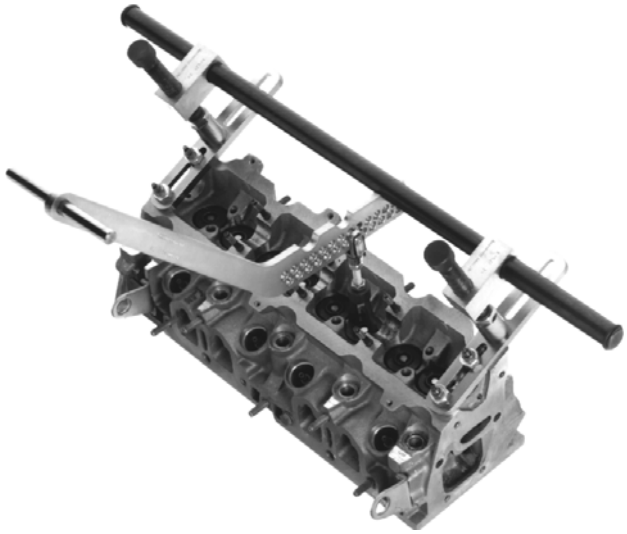
Weight:.....85 g

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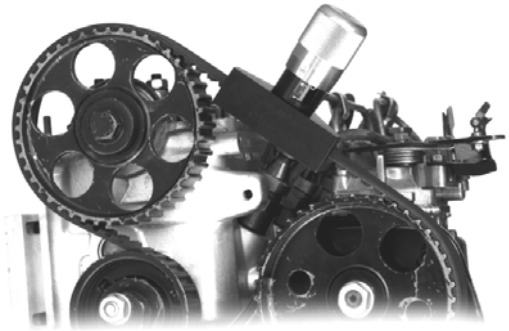
Examples of applications for our Special Tools for engine repairs.



Valve-stem oil-seal replacement.



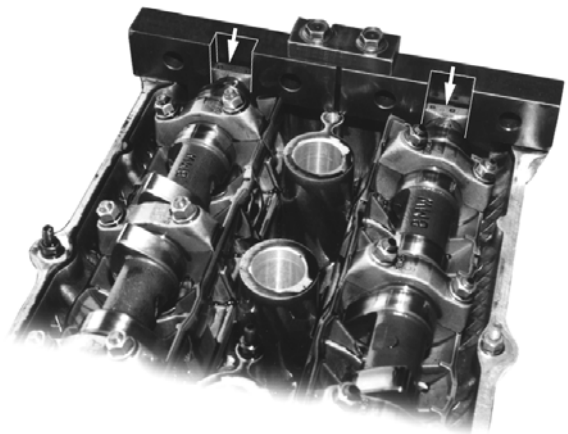
Valve replacement.



Timing-belt tension testing.



Setting of injection-timing.



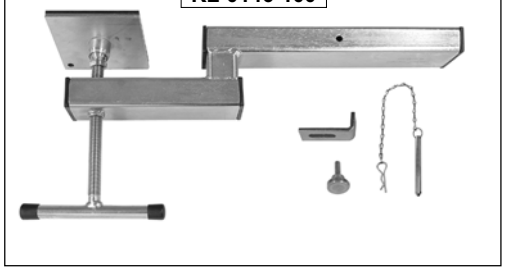
Camshaft locking.

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KL-0146-... Series

Base Tool:

KL-0146-100



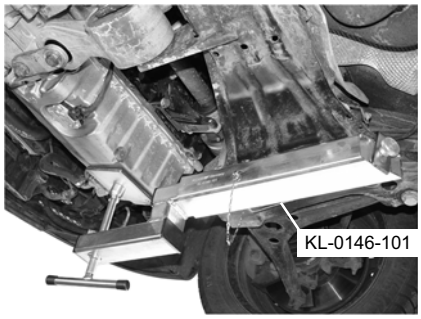
Adaptor:

KL-0146-1..

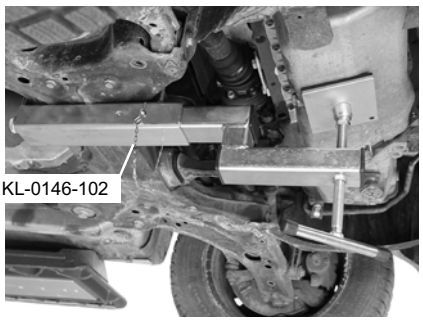


Application examples:

VW Sharan, Ford Galaxy, Seat Alhambra



VW Golf IV, New Beetle, Audi A3 etc.



Fiat Ducato, Citroën Jumper, Peugeot Boxer



KL-0146-... Series Supporting Device

To support the engine when the side engine bracket is removed. It is required when replacing e.g. timing belts, water pumps or engine brackets.

Due to the support given to the engine by the supporting device **KL-0146-… Series** it is possible to work at the engine control (belt drive) without using engine cranes or transmission lifts.

The supporting device consists of the base tool **KL-0146-100** and of an adaptor different for each kind of vehicle (see Table).

By changing the adaptor the field of application of the supporting device is almost universal.

Advantages

- High time saving
  ⇒ Motor cranes, gear lifters, etc. are not required.
- High cost saving
  ⇒ Easy and fast installation of the supporting device.
  ⇒ Only one mechanic is needed.
- Universally applicable
  ⇒ Due to the individually exchangeable adaptor.

Adaptor



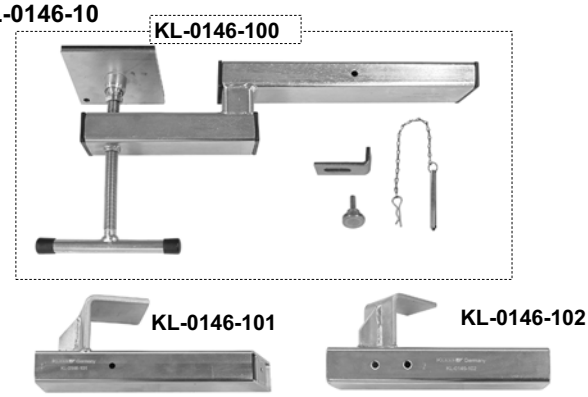
e.g. KL-0146-101

Part No.	Suitable for:
KL-0146-101	VW Sharan (7M) Ford Galaxy (WGR) Seat Alhambra (7V)
KL-0146-102	VW Golf IV, New Beetle Audi A3 (9C1, 1C1) Skoda Oktavia (1U2, 1U5) Seat Leon (1M1), Toledo (1M2)
KL-0146-103	Ford Focus I
KL-0146-104	Peugeot 206 (2A), 307 (3A, 3B)
KL-0146-105	Citroën Berlingo
KL-0146-106	Ford Focus II, C-Max
KL-0146-107	Ford Fusion (e.g.JU), Fiesta V (JH)
KL-0146-108	Seat Altea (e.g. 5P1), Toledo III (5P2), Skoda Oktavia II (1Z3)
KL-0146-110	VW Lupo (6X1, 6E1)
KL-0146-111	Citroën C4
KL-0146-112	Citroën C5
KL-0146-113	Peugeot 407
KL-0146-114	Citroën Jumpy (U6U)
KL-0146-115	Citroën Xsara Picasso (N68)
KL-0146-116	Peugeot 807 Citroën C8
KL-0146-117	Peugeot 607 (9P)
KL-0146-118	VW Polo (9N) Skoda Fabia (6Y) Seat Cordoba (6L2)
KL-0146-119	Ford Fiesta (2005 onwards)
KL-0146-120	Opel Zafira B (2005 onwards)
KL-0146-122	Peugeot Boxer Citroën Jumper Fiat Ducato
KL-0146-124	Fiat Punto (2006 onwards)
KL-0146-126	Alfa Romeo 159 (2006 onwards)

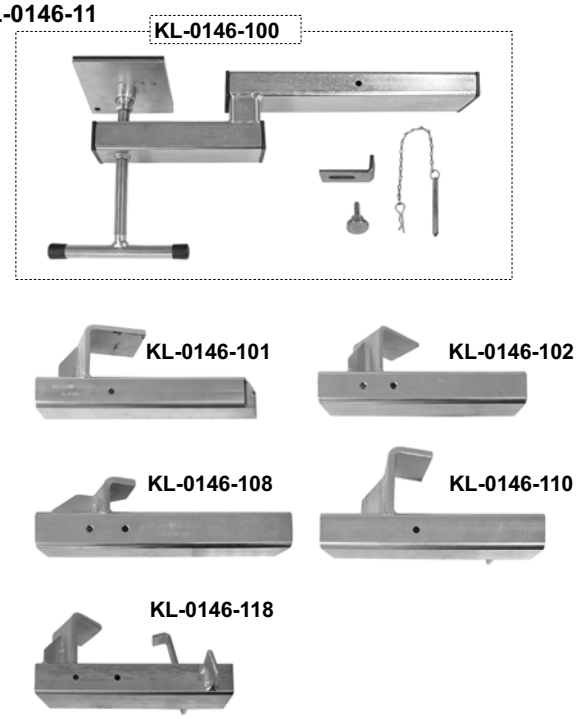
Further adaptors on request.

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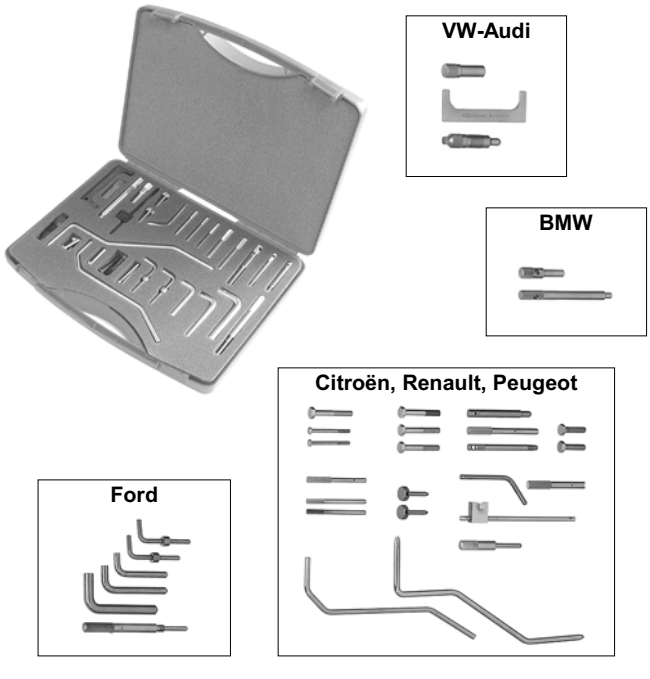
KL-0146-10



KL-0146-11



KL-0180-100 K



KL-0146-10 Supporting Device
with Adaptor 1 and 2

Suitable for **VW-Audi, Ford, Seat, Skoda, (e.g.: Audi A3** (8L1, 8P1)**; VW Golf IV, New Beetle, Sharan; Ford Galaxy; Seat Alhambra, Leon** (1M1), **Toledo II** (1M2)**; Skoda Oktavia** (1U2,1U5).

Field of applications see 6.4-02.

By changing the adaptor the field of application of the supporting device is almost universal. (see table page 6.4-02)

Part No.	Description	Qty.
KL-0146-10	**Supporting Device with Adaptor 1 and 2**	**1**
consists of:		
KL-0146-100	Supporting device - Base Tool	1
KL-0146-101	Adaptor 1 (VW Sharan / Ford Galaxy / Seat Alhambra)	1
KL-0146-102	Adaptor 2 (VW Golf IV, New Beetle / Audi A3 / Skoda Oktavia / Seat Leon, Toledo)	1

KL-0146-11 Supporting Device VW-Audi

Suitable for **VW-Audi, Ford, Seat, Skoda, (e.g.: Audi A3** (8L1, 8P1)**; VW Golf IV, V, Lupo, New Beetle, Polo** (9N)**, Sharan; Ford Galaxy; Seat Alhambra, Altea, Ibiza** (6L1)**, Leon** (1M1)**, Toledo II** (1M2)**; Skoda Fabia, Oktavia** (1U2,1U5, 1Z3).

Field of applications see 6.4-02.

By changing the adaptor the field of application of the supporting device is almost universal. (see table page 6.4-02)

Part No.	Description	Qty.
KL-0146-11	**Supporting Device VW-Audi**	**1**
consists of:		
KL-0146-100	Supporting device - Base Tool	1
KL-0146-101	Adaptor 1 (VW Sharan / Ford Galaxy / Seat Alhambra)	1
KL-0146-102	Adaptor 2 (VW Golf IV, New Beetle / Audi A3 / Skoda Oktavia / Seat Leon, Toledo)	1
KL-0146-108	Adaptor 8 (VW Golf V / Audi A3 / Seat Altea, Toledo / Skoda Oktavia)	1
KL-0146-110	Adaptor 10 (VW Lupo)	1
KL-0146-118	Adaptor 18 (VW Polo / Skoda Fabia / Seat Ibiza)	1

KL-0180-100 K Locking Pin Set Universal
(with case)

Suitable for: VW-Audi, BMW, Citroën, Ford, Peugeot, Renault, etc.
Application: Locking of engine shafts

The insertion of appropriate locking pins into the camshaft pulley and injection pump pulley, into flywheel and the insertion of the fixing gauge **KL-0280-9** into the camshaft slot guarantees correct positioning of camshaft and pump shaft to the crankshaft when exchanging the timing belt, removing or installing the injection pump, etc. (Correct timing adjustment)

Only then will the optimal engine power be achieved and damage to the engine be prevented.

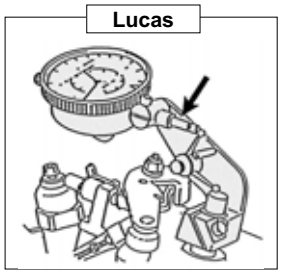
Part No.	Description		Qty.
KL-0180-100K	**Locking Pin Set Universal**		**1**
consists of:			
KL-0280-10	Locking Pin	(Audi V6)	1
KL-0280-8	Locking Pin Ø15.5	(VW-Audi, Seat)	1
KL-0280-9	Fixing Gauge	(VW-Audi, Seat)	1
KL-0580-10	Locking Pin Ø11.8 / Ø8	(BMW)	1
KL-0580-11	Locking Pin Ø9.9	(BMW)	1
KL-0680-10	Locking Pin for crankshaft	(Ford)	1
KL-0680-11	Locking Pin Ø8.3	(Renault, Ford)	1
KL-0680-12	Locking Pin Ø9.5	(Ford)	1
KL-0680-13	Locking Pin Ø12.9	(Ford)	1
KL-0680-14	Locking Pin Ø6	(Ford)	2
KL-1280-10	Locking Pin Ø8 / Ø12	(Renault)	1
KL-1280-11	Hex Bolt M5 × 50	(Renault)	2
KL-1280-12	Hex Bolt M7 × 50	(Renault)	3
KL-1380-10	Locking Pin A Ø8	(Peugeot)	1
KL-1380-11	Locking Pin B Ø9.5	(Peugeot)	1
KL-1380-12	Locking Pin C Ø6	(Peugeot)	1
KL-1382-1	Reaction Wrench for Timing Belt	(Peugeot)	1
KL-1480-10	Locking Pin angled Ø6.8	(Peugeot)	1
KL-1480-11	Locking Pin angled Ø6	(Peugeot)	1
KL-1480-12	Locking Pin Ø6 short	(Peugeot)	2
KL-1480-13	Locking Pin M8 / Ø6.7	(Citroën, Peugeot)	1
KL-1480-14	Locking Pin Ø10 / Ø8	(Peugeot)	1
KL-1480-15	Locking Pin angled Ø7.8	(Citroën, Peugeot)	1
KL-1480-16	Locking Pin Ø6 long	(Peugeot)	2
KL-1480-17	Hex Bolt M8 × 30	(Peugeot)	2
KL-1480-18	Hex Bolt M8 × 40	(Peugeot)	1
KL-0180-1020	Plastic Storage Case		1

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KL-0129-20 K



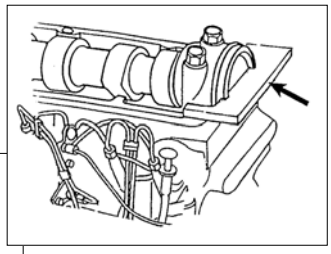
Lucas

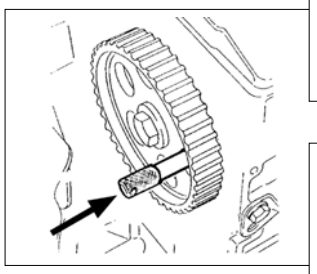


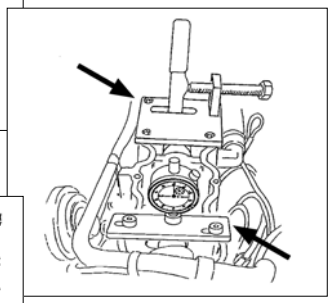
KL-0180-106 K

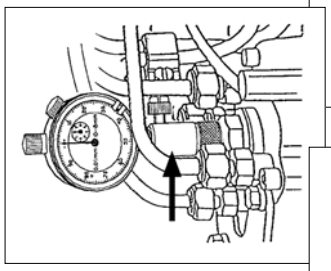
Universal

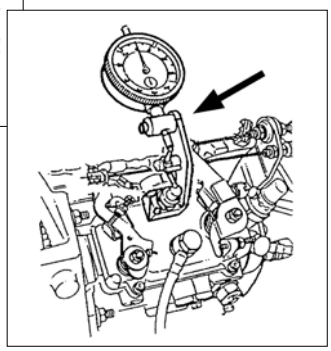












Note: Further valve train tools see vehicle manufacturer specific pages.

KL-0129-20 K Adjusting Tool for Lucas CAV-Roto- Diesel Injection Pumps

With this Tool Set **KL-0129-20 K** it is possible to adjust Injection Pumps of Diesel vehicles with Lucas-CAV-Roto-Diesel Pumps.

Specification:

Part No.	Description	Qty.
KL-0129-20 K	Adjusting tool with dial gauge	1
consists of :		
KL-0129-200	Adjusting tool	1
KL-0128-0	Dial gauge	1
KL-0129-2090	Case with insert	1

KL-0129-200 K Adjusting Tool for Lucas CAV-Roto-Injection Pumps (not ill.)

As **KL-0129-20 K** but without dial gauge **KL-0128-0.**

KL-0180-106 K Locking Tool Set

Universal suitable e.g. for:

Audi: 1.9D/TDI (1Y, 1Z, AAZ, AHU, AFN, AFF & AVG engines)

Citroën/Peugeot: 1.4D, 1.7D/TD, 1.8D/TD, 1.9D/TD, 2.1 & 2.2TD (TUD & XUD engines)

Fiat/FSO: 1.9D/TD (PSA engines)

Ford: 1.6D, 1.8D/TD (88-02), 1.9TDi (-00)

LDV /Mazda: (PSA & Ford engines)

Rover: Metro, 114D, 218/418SD, Maestro & Montego 2.0D

Seat: 1.3D, 1.4D, 1.7Sdi, 1.9D Turbo, 1.9SDi/TDi (MN, 1W, AAZ, AEY, AFN, AHU, AKW & AVG engines)

Skoda: Felicia 1.9D (AEF engine)

Vauxhall/Opel: 1.6D, 1.7D/DR/DTL+ Isuzu engines 1.5D - 3.1TD

Volkswagen: 1.6D, 1.7D, 1.9DT, 1.9SDI/TdI & 2.4D (MN, 1W, 1Y, 1Z, AEY, AFN, AHB, AHU, AKW, ALE, AHH, AZZ, AVG, ACL & ACT engines)

Volvo: 240, 740, 760, 940, 960D/Turbo

Bosch VE, Diesel Kiki, Nippondenso & CAV/RotoDiesel injection pumps.

To prevent the engine shafts (e.g. camshafts, crankshaft, injection pump shaft) from turning or to keep them in a specific position when changing a timing belt or to adjust the injection pump.

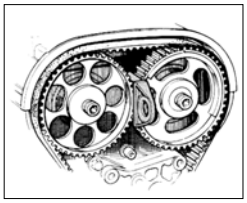
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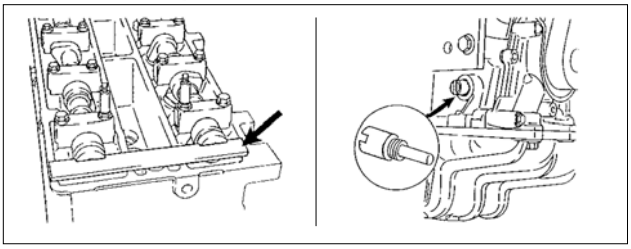
Part No.	Description	Qty.
KL-0180-106 K	Locking tool set	1
consists of:		
KL-0129-210	Adjusting tool for Bosch VE injection pump	1
KL-0482-210	Camshaft adjusting plate	1
KL-0129-200	Adjusting tool for Lucas CAV injection pump	1
KL-0680-1051	Adjusting gauge for camshaft	1
KL-0481-8	Adjusting gauge for crankshaft	1
KL-0481-9	Locking pin for crankshaft	1
KL-0128-0	Dial gauge Ø40 mm	1
KL-1480-15	Locking pin angled Ø7,8	1
KL-1480-11	Locking pin angled Ø6	1
KL-1480-18 S	Hex. bolt M8x40 (3 pcs.)	1
KL-0481-611	Hex. bolt M6 x 50 (2 pcs.)	1
KL-0280-9	Adjusting gauge	1
KL-0680-1052	Locking pin for crankshaft, long	1
KL-0680-1054	Locking pin Ø6 (2 pcs.)	1
KL-1780-101	Locking pin Ø6,6	2
KL-0680-1055	Locking pin Ø9,5	1
KL-0280-801	Locking pin Ø15,5	1
KL-0680-111	Locking pin Ø8.3	1
KL-0680-131	Locking pin Ø12.7	1
KL-0180-1069	Case with insert	1

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KL-0180-105 K







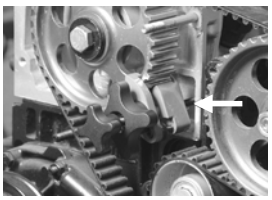
Note: Further valve train tools see vehicle manufacturer specific pages.

KL-0180-2 K

Universal



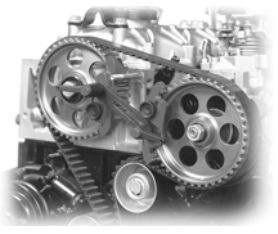
KL-0180-21



KL-0180-20



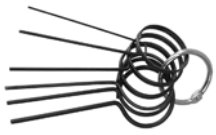


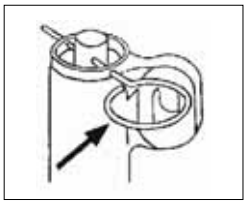


KL-0180-201



KL-0180-30





KL-0180-105 K Locking Tool Set

Suitable for TwimCam petrol engines e.g.

Ford (Zetec) Fiesta, Puma & Focus 1.25, 1.4 1.6 & 1.7 16V; Escort/Orion 1.6i & 1.8i Mondeo 1.6, 1.8 & 2.0 16V. (-98)

Honda Civic, Accord, Prelude, Integra & Shuttle 1.6, 2.0, 2.2 & 2.3

Land Rover Discovery 2.0MPi, Freelander 1.8i 16V.

Mazda 121 1.25 16V.

Rover Metro, Gta/Gti, 114, 214, 216, 218, 414, 416, MGF, 220, 420, 618, 620, 623, 820/Vitesse (92-), 25, 45

Vauxhall/Opel (EcoTec) Corsa, Tigra, Meriva, Astra, Cavalier, Calibra, Vectra, Omega, Frontera & Sintra 1.4, 1.6, 1.8, 2.0 & 2.2 16V.

To prevent the engine shafts (e.g. camshafts, balancer shafts, crankshafts) from turning.

Specification:

Part No.	Description	Qty.
KL-0180-105 K	**Locking Tool Set**	**1**
consists of :		
KL-1780-103	Locking pin Ø 6,8	2
KL-1780-104	Locking pins Ø 5,0	2
KL-0680-1051	Fixing gauge for camshaft	1
KL-0482-313	Locking tool for Camshafts (pale grey)	1
KL-1780-105	Locking tool for Camshafts (orange)	1
KL-1780-106	Locking tool for Camshafts (black)	1
KL-0482-314	Locking tool for Camshafts (brown)	1
KL-0482-311	Locking tool for Camshafts (yellow)	1
KL-0482-312	Locking tool for Camshafts (blue)	1
KL-1780-107	Locking pin for balance shaft Ø 7,3 / 6,1	1
KL-0680-1056	Locking pin for crankshaft (short)	1
KL-0180-1059	Case + insert	1

KL-0180-2 K Locking Tool Set Multi- / Uni-Lock

Universally applicable tool set to lock timing-belts e.g. camshaft pulleys (double and single camshaft engines), fuel injection pump pulleys, etc.

Specification:

Part No.	Description	Qty.
KL-0180-2 K	**Locking tool set Multi- / Uni-Lock**	**1**
consists of:		
KL-0180-20	Locking tool	1
KL-0180-201	Extended rail	1
KL-0180-21	Unilock	1

KL-0180-20 Locking Tool

Universally adjustable. For toothed pulleys spaced between approximately 5 mm to 60 mm apart.

For TwinCam engines (e.g. Citroën, Fiat, Ford, Honda, Hyundai, Lancia, Mazda, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Renault, Rover, Saab, Subaru, Toyota, Volvo etc.) and for Diesel engines to lock the camshaft and injection pump (e.g. VW-Audi, Ford, Seat, Škoda, etc.)

By inserting the **KL-0180-20** Locking Tool in the drive pulleys it is ensured that they do not lose the relationship to the crankshaft during repairs or changing the timing belt.

KL-0180-201 Strip increased in length

To be used with the **KL-0180-20** locking tool for toothed belt sprockets with a distance of approx. **60 mm to 125 mm**, e.g. for locking the injection pump wheel in relation to the camshaft.

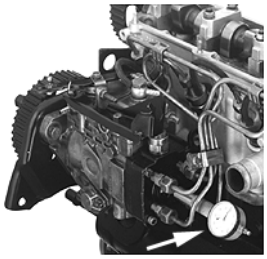
KL-0180-30 Retaining Pin Set 0,8 mm - 1,9 mm

To lock the automatic tensioner when changing the timing belt.

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KL-0129-1 A

VW-Audi, Seat, Škoda





KL-0280-106 A



KL-1480-16



KL-0280-91



KL-0280-8

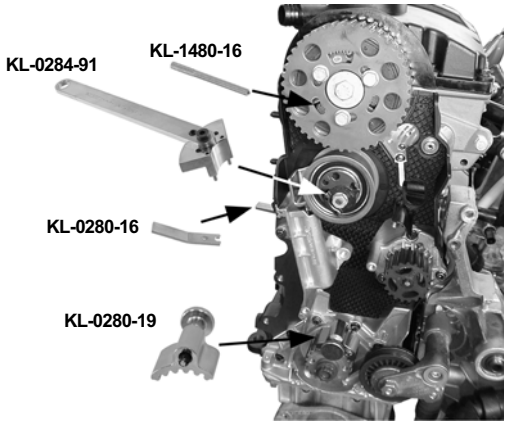


KL-0280-19



KL-0280-16

Tools required to replace Timing Belt on VW-Audi, Ford, Seat, Škoda *1,9 TDI PD*



KL-0129-1 A Adjustment Tool Set

For adjustment of BOSCH-VE fuel injection pump on Diesel engines.

Advantages:

- Precise adjustment of the BOSCH-VE injection pump.
- Easy handling.
- Applicable on all vehicles equipped with BOSCH-VE injection pump.

consists of:

Part-No.	Description	Qty.
KL-0129-10	Adaptor 35 mm M8×1 incl. Extension KL-0128-07 (30 mm)	1
KL-0129-11	Adaptor 65 mm M8×1	1
KL-0129-12	Adaptor 120 mm M8×1	1
KL-0129-13	Adaptor M12×1.25 to M8x1 for VW-Audi TDI	1
KL-0129-14	Adaptor 85 mm M10×1 for VW-Audi TDI engines etc.	1
KL-0128-0	Dial Indicator Ø 40 mm incl. Extension KL-0128-03 (10 mm)	1
KL-0280-8	Locking Pin Ø15.5 for VW-Audi	1
KL-0280-9	Fixing Gauge for VW-Audi, Ford, etc.	1
KL-0129-1020	Plastic Storage Case, empty	1

KL-0280-106 A Locking Tool Set for VW-Audi (German Utility Model)

Universal Diesel tool set to lock or position Camshaft, Crankshaft, Injection Pump drive pulley, etc. when changing the Timing Belt or performing engine repairs.

Contents:

KL-0280-91 Camshaft Tool

Suitable e.g. for
VW-Audi, Seat, Škoda 1,9 D; SD; SDI; TD and TDI engines,
Ford 1,6 D; 1,9 TD and 1,9 TDI engines
Volvo Diesel engines D24, D24T, D24TIC etc.

KL-1480-16 Locking Pin Ø 6 × 60 mm

To lock Injection Pump drive pulleys
Suitable e.g. for
VW-Audi, Seat, Škoda, 1,9 D; SD; SDI; TD and TDI.

To position the Camshaft
Suitable e.g. for VW-Audi, Ford, Seat, Škoda TDI PD engines.

KL-0280-8 Locking Pin Ø 15,5 mm

To lock Injection Pump drive pulleys
suitable e.g. for VW-Audi, Seat, Škoda, etc.

KL-0280-19 Locking Tool with expanding collet for Crankshaft Pulley (German Utility Model)

Suitable e.g. for VW-Audi, Ford, Seat, Škoda 3- and 4-Cylinder TDI PD engines.

KL-0280-16 Fixture

To hold the timing belt tensioner in the starting position.
Suitable e.g. for VW-Audi, Ford, Seat, Škoda TDI PD engines.

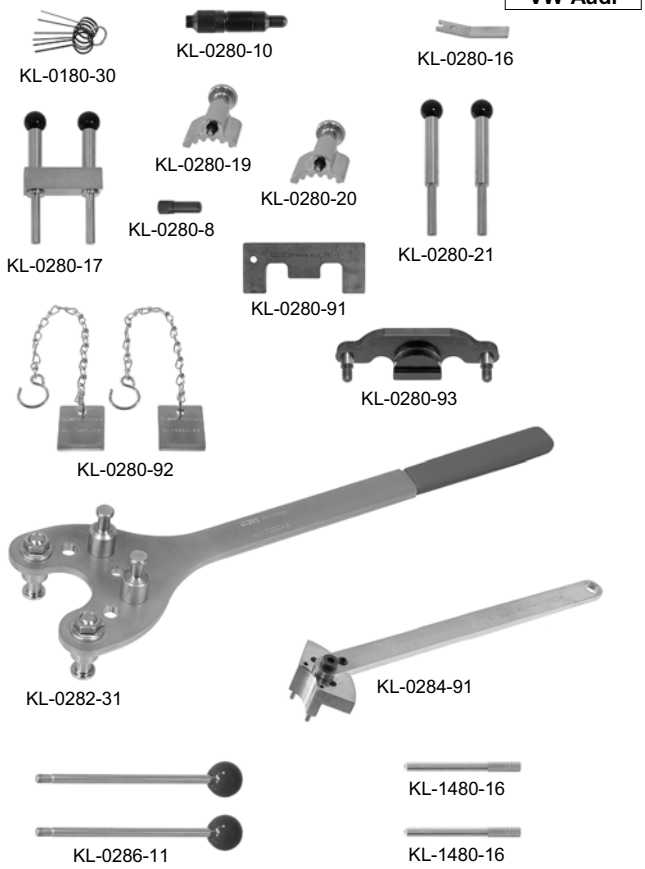
Accessory:

KL-0284-9 Tension Tool for idler pulley

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KL-0280-107 K

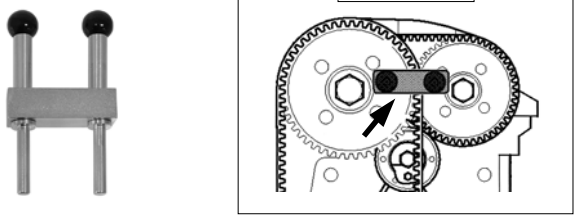
VW-Audi



Note: The tool set KL-0280-107 K is being supplied in a plastic case.

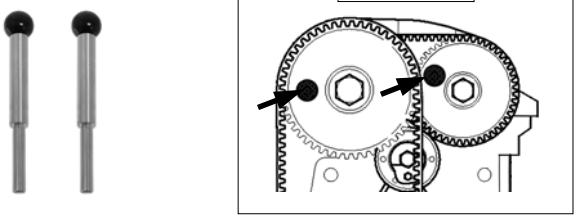
KL-0280-17

VW-Audi



KL-0280-21

VW-Audi



KL-0280-11

VW-Audi



KL-0280-13



KL-0280-10

VW-Audi



KL-0280-107 K Locking Tool Set
(German Utility Model)

Universal suitable for the current VW-Audi, Seat and Skoda vehicles e.g.:

To lock or position engine shafts such as camshafts, injection pump shafts and crankshafts to install timing belt clamping jigs when replacing timing belts or during engine repairs.

This locking set **KL-0280-107 K** is the ideal tool for your workshop.

Note: The application areas of the single tools are on catalogue pages 6.4-07 to 6.4-13.

Specification:

Part No.	Description	Qty.
KL-0280-107 K	**Locking tool set**	**1**
consists of:		
KL-0180-30	Retaining pin set 0,8 mm - 1,9 mm	1
KL-0280-10	Locking pin Audi V6	1
KL-0280-16	Fixture	1
KL-0280-17	Locking tool for camshaft	1
KL-0280-19	Locking tool for camshaft 1.2/1.4/1.9 l. TDI PD	1
KL-0280-20	Locking tool for camshaft 2.0 l. TDI PD	1
KL-0280-21	Locking tool for camshaft (2 pcs.)	1
KL-0280-8	Locking pin Ø 15,5 mm	1
KL-0280-91	Fixing gauge for camshaft	1
KL-0280-92	Fixing gauge for camshafts V6 (2 pcs.)	1
KL-0280-93	Fixing gauge for camshaft A3 /, Golf IV TDI	1
KL-0282-31	Reaction wrench	1
KL-0284-91	Reaction wrench for timing belts 240 mm long	1
KL-0286-11	Guide bolt set for front beam	1
KL-1480-16	Locking pin Ø 6 mm, long	2
KL-0280-1070	Plastic case	1

KL-0280-17 Locking Tool for camshaft

Suitable for VW- Audi 1,4 / 1,6 L petrol engines e.g. VW Lupo, Polo, Golf IV, Bora / Audi A2

To lock the both camshaft wheels.
Necessary when replacing timing belts or during other engine repairs.

Weight: ..... 340 g

KL-0280-21 Locking Pin Set

Suitable for VW- Audi 1,4 / 1,6 L petrol engines e.g. VW Lupo, Polo, Golf IV, Bora / Audi A2

To lock the both camshaft wheels.
Necessary when replacing timing belts or during other engine repairs.

Weight: ..... 160 g

KL-0280-11 Locking Tool for Camshaft

Locking tool for camshaft **Audi V6 petrol engines with 2 valves per cylinder** e. g. for example when replacing the timing belt or performing engine repairs. Weight: ..... 1,9 kg

KL-0280-13 Locking Tool for Camshaft

To lock the Camshafts on **Audi V6 petrol engines with 5 valves per cylinder**, for example when replacing the timing belt or performing engine repairs. Weight: ..... 2,2 kg

KL-0280-10 Locking Pin

Locking Tool for Crankshaft **VW-Audi V6 petrol and V6 / V8 Diesel engines**, for example when replacing the timing belt or performing engine repairs.

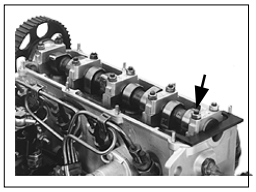
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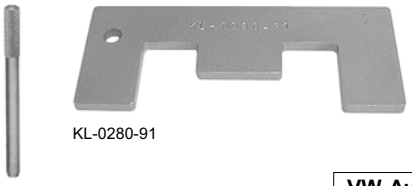
KL-0280-9

VW-Audi





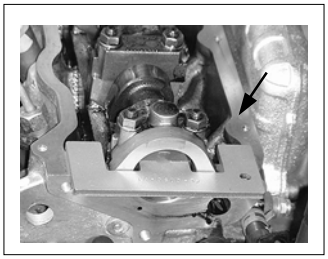
KL-0280-101



VW-Audi, Seat, Škoda

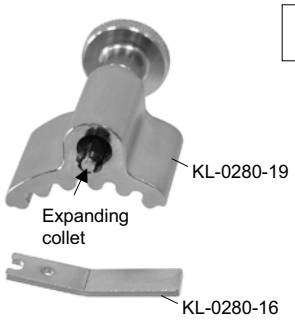


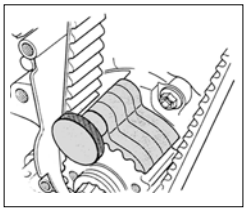




KL-0280-102 A

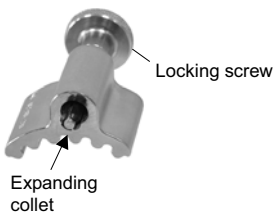
VW-Audi, Ford, Seat, Skoda
1,2; 1,4; 1,9; 2,0 TDI PD

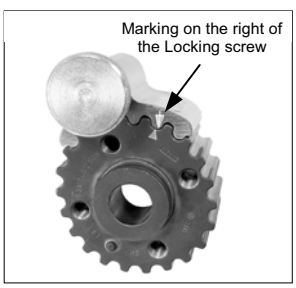




KL-0280-20

VW-Audi, Seat, Skoda
2,0 TDI PD





KL-0280-9 Fixing Gauge

To lock the camshaft at **VW-Audi, Seat, Škoda, Ford, Volvo**.

The tool guarantees the correct positioning of camshaft and pump shaft to the crankshaft when exchanging the timing belt or removing or installing the injection pump. (Correct timing adjustment).

KL-0280-101 Locking Tool Set

Suitable for VW- Audi, Seat, Škoda TDI engines.

By inserting the Locking Tool **KL-1480-16** in the Injection-Pump pulley and inserting Guide **KL-0280-91** in the camshaft it can be ensured that the injection pump and camshaft maintain their correct position to the crankshaft during engine repairs or renewal of the timing-belt.

The Adaptor **KL-0129-13** and **KL-0129-14** enable simultaneously, together with **KL-0129-1**, the adjustment of the injection timing (advance).

Application: **Universal** Weight .....263 g

KL-0280-102 A Locking Tool Set
(German Utility Model)

Suitable for VW- Audi, Ford, Seat, Škoda 3 and 4 cyl. (1,2; 1,4; 1,9 and 2,0) TDI PD engines.

The use of Locking Tool **KL-0280-19** in the Crankshaft timing-belt pulley in combination with the locking of the Camshafts with Pin **KL-1460-16** will ensure that the alignment of the Camshafts to the Crankshaft is retained. Before the removal of the automatic belt-tensioning pulley, this must be brought into the "zero" position and held using tool **KL-0280-16**. Necessary during replacement of timing-belts or engine repairs.

Weight: .....320 g

Note: The **expander-type locking pin** holds the tool accurately in the housing hole.

Basic body made of tensional steel.

KL-0280-20 Locking Tool with Expanding collet for camshaft (German Utility Model)

Suitable for VW-Audi 2,0 L TDI engines with *oval* Crankshaft timing-belt pulley, e.g. enginecode BDK, BKE, BLB, BMA, BMM, BMP, BMR, BNA, BPW, BRE, BRF, BRC, BUZ, BVE etc.

To lock the crankshaft into position. This tool is required in the case of toothed belt replacement or engine repairs.

Note: The **expander-type locking pin** holds the tool accurately in the housing hole.

Accessories:

KL-1480-16 **Locking pin**
(to lock the camshaft [2x for TwinCam])

KL-0284-91 **Reaction wrench**
(for tensioning timing belts)

KL-0280-19 **Locking tool for crankshaft timing belt**
(for *round* crankshaft pulleys)

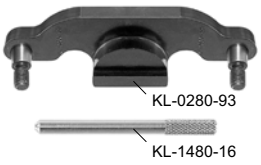
KL-0282-31 **Reaction wrench**

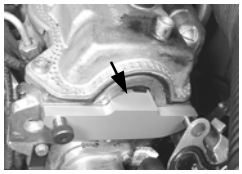
KL-0286-11 **Guide Bolt set**
(for front beam)

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KL-0280-103

VW-Audi

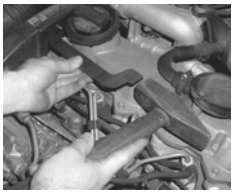




KL-0282-40

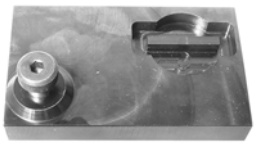
VW-Audi, Opel, etc.

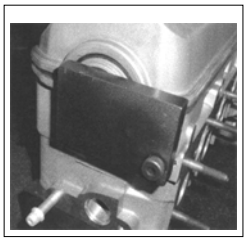




KL-0280-94

VW-Audi



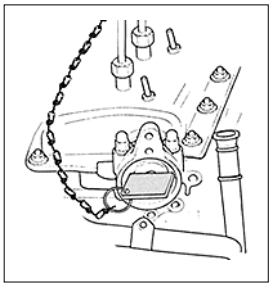


KL-0280-105

VW-Audi, Seat







KL-0280-103 Locking Tool Set

Suitable for VW- Audi, Seat, Skoda 4 cylinder 1,9 TDI/SDI engines (not PD).

Especially suitable (for example) for VW Golf IV 1.9 TDI (110 hp) with aluminium valve cover.

The **KL-0280-103** allows retention of camshaft position without the need to remove the cam-cover - so eliminating risk of damage to vulcanised gasket.

Note: The valve cover gasket is vulcanised on to the valve cover and can only be renewed as a single unit with the cover.

The gasket is not available separately.

Required to lock engine shafts such as camshafts and injection pump shafts when replacing timing-belts or during engine repairs. Weight:..... 400 g

Advantages: High time and cost savings.

KL-0282-40 Camshaft Pulley Removal Drift

Suitable for VW/Audi 4 cylinder 1,9 TDI engine (110 hp)

To drift the camshaft pulley off the conical seat on the camshaft. The special profile of the Drift ensures that the impact force is brought to bear in an exactly axial direction onto the forward component (pulley).

Weight: ..... 210 g

KL-0280-94 Fixing Gauge for Camshaft

Suitable for VW/Audi 5 cylinder TDI engine e.g. LT, T4

The Setting Tools allows retention of camshaft position without the need to remove the cam-cover - so eliminating risk of damage to vulcanised gasket.

Necessary while renewing Timing Belts or during engine repairs.

Weight: ..... 680 g

KL-0280-105 Locking Tool Set

Suitable for VW-Audi 2,5 TDI V6 and Audi A8 3,3 TDI V8 engine.

To locate and hold the camshaft and the crankshafts in the correct position.

Necessary while renewing Timing Belts or during engine repairs.

Consists of:

KL-0280-92 Fixing Gauge for Camshaft (2 pcs.)

KL-0280-10 Locking Pin for crankshaft

Accessories:

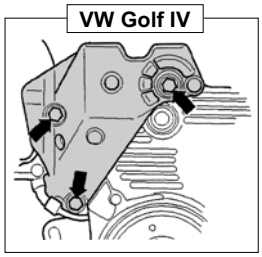
KL-1480-16 Locking Pin
(To prevent the injection pump gear from turning)
Weight: ..... 115 g

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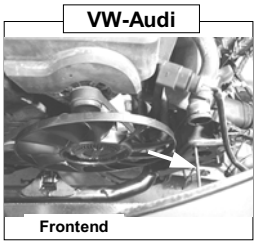
KL-0286-10





KL-0286-11





KL-0282-31





KL-0282-35



KL-0286-10 Special Sockets 16 mm (2 pcs.)

For VW Golf IV.

Required to remove and replace the alloy engine-mount, due to the very limited access, **KL-0286-10** 16 mm (12 point).

Required when changing timing-belt or performing engine repairs.

Drive ..... 1/2" □
Length..... 30 / 47,5 mm
Hex: 16 (12-point)

KL-0286-11 Guide Bolt Set M8 for front beam

Suitable for VW- Audi A4, A6 and Passat 1997-onwards.

When replacing timing belts or during engine repairs it is necessary to pull the front beam forwards on guide bolts.

Length:..... 190 mm

KL-0282-31 Reaction Wrench (420 mm long, adjustable)

With inter-changeable tips and several hole intervals.

Suitable for all timing pulleys with holes from minimum Ø 12 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.

A selection of tip-Ø and hole intervals are available to make the wrench almost universal in its range of application.

Technical Data:

Tip distance: ..... from 45 mm to 75 mm
Tip-Ø:..... 12 mm and 16 mm
Tip length:..... 34 mm
Overall tool length:..... 420 mm

KL-0282-35 Reaction Wrench (420 mm long, adjustable)

Suitable for all timing pulleys with holes from minimum Ø 14 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.

The adjustable lever allows to adjust the hole distance and makes the reaction wrench almost universal in its range of application.

Technical Data:

Tip distance: ..... from 14 mm to 130 mm
Tip-Ø:..... 14 mm
Tip length:..... 31 mm
Overall tool length:..... 410 mm

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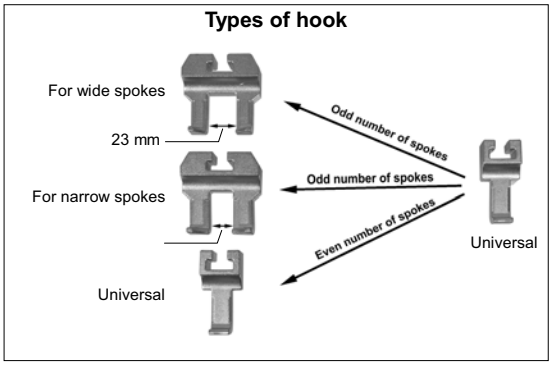
KL-0282-52



Pulling off camshaft sprocket.



Types of hook



KL-0183-50



Loosen retaining bolt

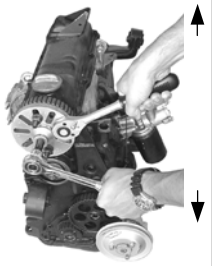


VW-Audi,Ford, Seat, Škoda, Opel, etc.

Dismantling Pulley



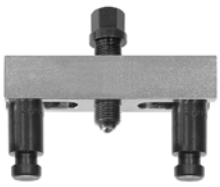
Extract the Pulley



KL-0183-51



KL-0282-1



VW- Audi, Opel, etc.



KL-0282-52 Puller for Crankshaft Pulley

Suitable for VW-Audi e.g. Audi A4, A6, A8 and VW Passat etc. with 4-, 6- and 8-cylinder engines.

The puller **KL-0282-52** is particularly suitable for pulling off 5- and 6-spoke camshaft pulleys.

A selection of hooks is available to make the puller almost universal in its range of applications.

Technical Data:

- ⇔ [mm] ..... 100 mm
- ⇳ [mm] ..... 38 mm
- Working load max.: ..... 2 t.
- Weight: ..... 1,3 kg
- Hex. Drive: ..... 17 mm

KL-0183-50 Pulley-Extractor and Reaction Tool (Patented)

Universal application ***2 Tools in one***

Loosen the retaining bolt and extract the Pulley

Suitable for all Pulleys with holes with a PCD Ø from 70 mm - 100 mm. Suitable for hole Ø from minimum 20 mm.

To lock the Pulley while loosening or tightening the retaining bolt, as well as preventing the Pulley from rotating duringextraction. Any available ½“ ratchet or extension drive may be used as the reaction tool.

Contents:

Part No.	Description	Qty.
KL-0183-50	**Pulley-Extractor and Reaction Tool**	**1**
consists of:		
KL-0183-510	Puller Plate	1
KL-0183-531	Hook Ø 20 mm	3
KL-0183-532	Hook Ø 26 mm	3
KL-0008-0009	Shoulder Nut M10	3
KL-0183-540	Pressure-Unit	1

KL-0183-51 Pulley-Extractor and Reaction Tool (Patented)

As **KL-0183-50** but with 2 Hooks Ø- 26 mm and 2 Hexagonal Nuts.

Suitable for VW-Audi, Seat, Škoda, Opel/Vauxhall Ford, BMW, Mercedes, Peugeot, Citroën, Renault, Fiat, Japanese vehicles, etc.

Contents:

Part No.	Description	Qty.
KL-0183-51	**Pulley-Extractor and Reaction Tool**	**1**
consists of:		
KL-0183-510	Puller Plate	1
KL-0183-532	Hook Ø 26 mm	2
KL-0008-0009	Shoulder Nut M10	2
KL-0183-540	Pressure-Unit	1

KL-0282-1 Extractor

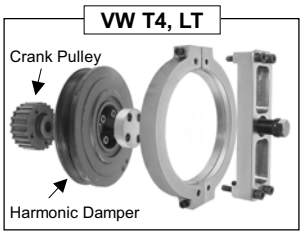
To loosen the injection pump pulley from the shaft.

Application: **VW-Audi, Seat, Škoda,** etc.

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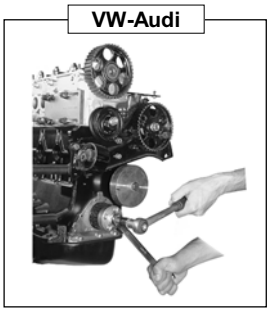
KL-0282-51





KL-0282-50





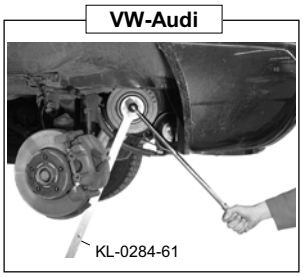
KL-0284-61



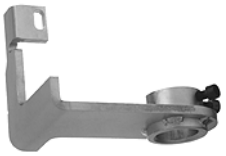


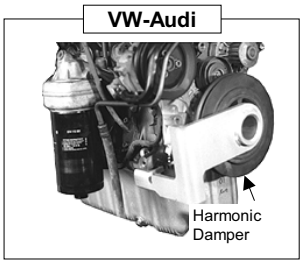
KL-0284-62



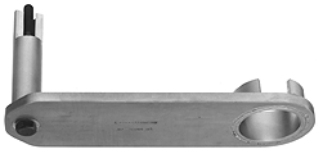


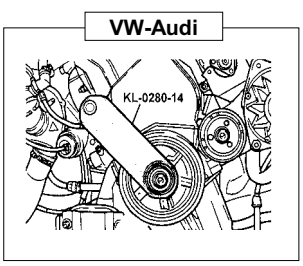
KL-0280-12





KL-0280-14





KL-0282-51 Puller for Harmonic Damper
(German Utility Model)

For VW 5 cylinder engines with poly-V-belt e.g. T4, LT etc.

Removes the harmonic damper while simultaneously reacting against the crankshaft pulley. The **KL-0282-51** Puller is absolutely necessary if the shoulder of the Pulley has corroded onto the harmonic damper.

Advantages:

- No damage to the harmonic damper.
- High time-savings.

KL-0282-50 Puller for Crankshaft Pulley

For VW-Audi 4 and 5 cylinder engines.

To remove the front pulley from the crankshaft.

KL-0284-61 Reaction Wrench
for Crankshaft Pulley
(German Utility Model)

For VW-Audi 4 and 5 cylinder engines with and without harmonic damper.

To provide a reaction onto the crankshaft front pulley so that the central pulley bolt may be lossened or tightened.

Required for timing belt changes, oil-seal replacement and during engine repairs.

Advantage:

By using the 2 extension handles, the loosening and tightening of the central crankshaft pulley bolt can be undertaken by a single mechanic.

Consists of:

Adaptor, cylinder bolts (4 x), Special cylinder bolts (x 4), Special Ring Spanner 60 mm, Extension handles (x 2)

Length $_{overall.}$ (incl. 2 extensions): .....1800 mm

KL-0284-62 Socket hex 27 mm

Suitable for VW-Audi, Seat, Škoda 4 and 5 cylinder engines, that have a 27mm hex bolt on the crankshaft to secure the belt pulley, vibration damper, etc.

To loosen or tighten the central crankshaft bolt. To be used with the **KL-0284-61** reaction wrench.
Required when removing or installing toothed belts and their pulleys, crankshaft sealing rings, belt pulleys or vibration dampers or during engine repairs.

Hex: .....27 mm
Drive: ..... 1/2" ☐
Length:.....100 mm
Weight: .....350 g

KL-0280-12 Locking Tool for Vibrator Damper

To lock the vibrator damper (pulley at the crankshaft) when the central bolt has to be loosened (e.g. changing of the timing belt).

Application: **VW engines**
(e.g. VW T4 Van with 5-cylinder Diesel)

KL-0280-14 Locking Tool

For counterbearing of the V-belt pulley / vibration damper while removing the crankshaft-centre bolt.

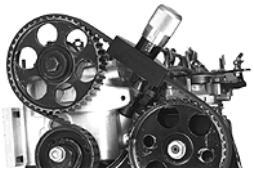
Application: **VW-Audi 5 Cylinder diesel engines up to '97 (AAT, ABP, AEL).**

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KL-0126-10



VW-Audi, Ford, Opel



Messurement of Belt tension.

KL-0126-10 Belt Gauge (mechanical)

The belt-gauge KL-0126-10 serves for controlled adjustment of the belt tension on combustion engines.

The tool is applicable on every vehicle with available specifications of admitted belt reflexion in mm at a special force in N or kp.

It is especially suitable for:

- **Audi** • **Ford** • **Opel** • **VW** **etc.**

Advantages:

- Easy handling.
- Compact metalastic design.
- Controlled adjustment of belt tension.
- Double reading possibility (on front and rear side).

Specifications:

Range / Scale	0 - 20 mm
Scale partition	in mm
Measuring method	mechanically (spring)
Setnut revolution by 360°	1 mm
Setnut partition	1/10 mm
Load to the measuring pin due to spring force by 1 revolution of the setnut	10 N (≈1 kp)
Weight	0,344 kg

KL-0284-91



VW-Audi



KL-0284-91 Reaction Wrench

With adjustable clamping lever to tense timing belts on **VW-Audi** engines. Due to the clamping lever adjustment, the tensioner puller can be operated even in constricted areas.

Length: ..... 240 mm Depth: ..... 29,5 mm

Accessories for KL-0284-9:

KL-0284-910 **Tension Lever** 240 mm long with Countersunk Head Screw (not ill.).

KL-0284-10



VW-Audi



KL-0284-10 Reaction Wrench (German Utility Model)

For tightening timing belts with limited access - the wrench can be activated from a variety of angles to enable it to be used in confined spaces.

Drive: .....3/8“☐ or by pin.
Length: ..... 47 mm Depth: ..... 32,5 mm

KL-0284-14

VW-Audi



KL-0284-14 Torx®-Key T45 jointed

Applicable for loosening the clamping screw on timing belt tightener on **VW-Audi vehicles** especially on: Drive: ..... 3/8“☐

- VW Golf III, petrol engines from 115 HP onwards and every diesel engine.
- Audi 80/A4, petrol engines with 115 HP and double fan.
- Audi 80/A4, diesel engines with double fan

KL-0284-17

VW-Audi



KL-0284-17 Reaction Wrench

To stretch and relax the automatic belt clamping role on **Audi A6 5-cylinder TDI engines** (also Volvo, etc.).

Length: ..... 175 mm

KL-0484-10

VW-Audi, Opel



KL-0484-10 Locking Tool

To block the automatic clamping role of the fan belt and the poly-V-belt on **VW-Audi** engines.

Also applicable to block the automatic clamping role of the fan belt on **Opel** vehicles with Eco Tec-engines.

Ø 4,0 / 6,0 mm Weight: ..... 70 g

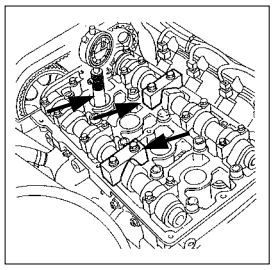
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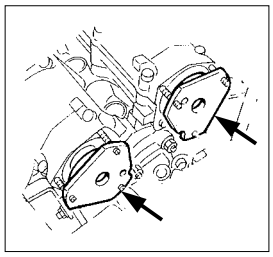
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KL-1682-30 K

Alfa Romeo, Fiat / Lancia







KL-1682-30 K Locking Tool Set for Camshaft

Alfa Romeo, Fiat / Lancia

Suitable for: Alfa Romeo vehicle with 1,4; 1,6; 1,8; 2,0; 2,5; 3,0 and 3,2 l. 4- and 6-cylinder engine. e.g.: 145, 146, 147, 155, 156, 164, 166, GTA, GTV, Spider, Spider GT etc. and Fiat / Lancia vehicle with 1,2; 1,4; 1,6; 1,8; 2,0 l. 4- and 5-cylinder engine. e.g.: Fiat Panda, Punto, Palio, Siena, Bravo, Brava, Stilo, Marea, Multipla, Barchetta, Coupe etc. Lancia Dedra, Delta, Kappa, Lydra etc.

For repairs to the cylinder head or engine, or when replacing a timing belt, the **KL-1682-30 K** locking tool set is needed to determine the top dead centre point of cylinder 1 on the working stroke, hold the camshafts in this position and permit adjustment of the tensioning pulley.

Advantage:

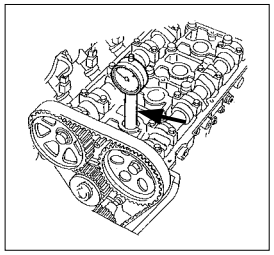
- Safe, accurate positioning and locking of the camshafts.
- Large time-saving.

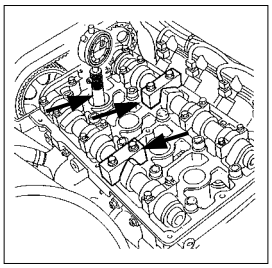
Contents and application see table page 6.4-15.

KL-1682-31 K

Fiat, Lancia







KL-1682-31 K Locking Tool Set for Camshaft

Fiat / Lancia

Suitable for: Fiat / Lancia vehicle with 1,2; 1,4; 1,6; 1,8; 2,0 l. 4- and 5-cylinder engine e.g.: Fiat Panda, Punto, Palio, Siena, Bravo, Brava, Stilo, Marea, Multipla, Barchetta, Coupe etc. Lancia Dedra, Delta, Kappa, Lydra etc.

For repairs to the cylinder head or engine, or when replacing a timing belt, the **KL-1682-31 K** locking tool set is needed to determine the top dead centre point of cylinder 1 on the working stroke, hold the camshafts in this position and permit adjustment of the tensioning pulley.

Advantage:

- Safe, accurate positioning and locking of the camshafts.
- Large time-saving.

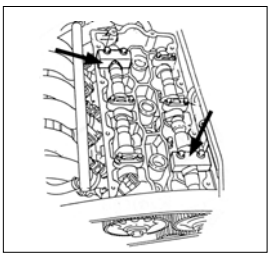
Contents and application see table page 6.4-15.

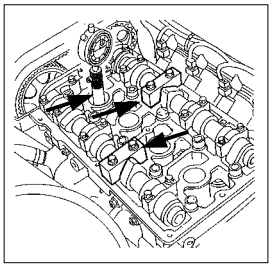
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KL-1682-32 K

Alfa Romeo







KL-1682-32 K Locking Tool Set for Camshaft
Alfa Romeo

Suitable for: Alfa Romeo vehicle with 1,4; 1,6; 1,8; 2,0; 2,5; 3,0 and 3,2 l. 4- and 6- cylinder engine e.g.: 145, 146, 147, 155, 156, 164, 166, GTA, GTV, Spider etc.

For repairs to the cylinder head or engine, or when replacing a timing belt, the **KL-1682-32 K** locking tool set is needed to determine the top dead centre point of cylinder 1 on the working stroke, hold the camshafts in position.

Advantages:

- Safe, accurate positioning and locking of the camshafts.
- Large time-saving.

6

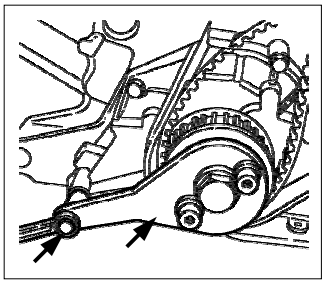
KL-1682-30	KL-1682-31	KL-1682-32	Part No.	Description	Vehicle	Litre	Cubic capacity	Cylinder	Valve
•		•	KL-1682-301	Locking Tool Set for Camshaft (2 pcs.)	ALFA 145 / 146 / 156	1,4/1,6	1370/1598	4	16
•		•	KL-1682-302	Locking Tool Set for Camshaft (2 pcs.)	ALFA 145 / 146 / 155 / 156 / 164 / GTV / Spider	1,8/2,0	1747/1970	4	16
•		•	KL-1682-303	Locking Tool Set for Camshaft (2 pcs.)	ALFA 145 / 146 / 147	1,6	1600	4	16
•		•	KL-1682-304	Locking Tool Set for Camshaft (2 pcs.)	ALFA 147 / 156 / 166 / GTV / Spider GT	2,0 16V	2000	4	16
•		•	KL-1682-305	Locking Tool Set for Camshaft (4 pcs.)	ALFA 156 / 164 / 166 / GTV / Spider	2,5 V6/ 3,0 V6	2500/3000	6V	12 / 24
•		•	KL-1682-306	Locking Tool Set for Camshaft (4 pcs.)	ALFA 155 / 166 / GTA / GTV / Spider	3,2 V6	3200	6V	24
•	•		KL-1682-311	Locking Tool for Camshaft (1 pcs.)	FIAT Bravo / Brava / Marea LANCIA Y	1,4	1370	4	12
•	•		KL-1682-312	Locking Tool Set for Camshaft (2 pcs.)	FIAT Barcetta / Coupe LANCIA Dedra / Delta	1,8	1747	4	16
•	•		KL-1682-313	Locking Tool Set for Camshaft (2 pcs.)	FIAT Bravo / Brava / Marea LANCIA Dedra	1,8	1747/1800	4	16
•	•		KL-1682-314	Locking Tool Set for Camshaft (2 pcs.)	FIAT Punto HJT / Barchetta / Coupe LANCIA Dedra / Delta	1,8	1747	4	16
•	•		KL-1682-315	Locking Tool Set for Camshaft (2 pcs.)	FIAT Coupe LANCIA Kappa / Lybra	2,0 20V	1998	5	20
•	•		KL-1682-316	Locking Tool Set for Camshaft (2 pcs.)	FIAT Coupe TB LANCIA Kappa TB	2,0 20V	1998	5	20
•	•		KL-1682-3511	Fixing Gauge for Camshaft	FIAT Panda new / Punto new / Palio / Siena	1,2	1200	4	8
•	•		KL-1682-3512	Fixing Gauge for Camshaft	FIAT Panda new / Punto new / Palio / Siena	1,2	1200	4	8
•	•		KL-1682-352	Fixing Gauge Set for Camshaft (2 pcs.)	FIAT Bravo / Brava / Marea / Doblo / Multipla LANCIA Lybra	1,6 e	1600	4	16
•	•		KL-1682-383	Socket wrench for phase compensator	FIAT Barcetta / Punto new / Coupe / Marea LANCIA Lybra	1,8/ 2,0	1800/2000	4 / 5	16/20
•	•		KL-1682-371	Adjusting tool for tensioning pulley	FIAT Bravo / Brava / Stilo / Marea LANCIA Lybra / Delta	1,6	1580	4	16
•	•	•	KL-1682-382	Top dead centre adjusting tool	FIAT Bravo / Bravo / Coupe LANCIA Lybra ALFA 147 / 156 / 166 / GTV / Spider GT	1,6/ 2,0	1600/2000	4 / 5	16/20
•	•		KL-1682-381	Adapter for top dead centre adjustment		1,2	1200	4	8
•	•	•	KL-1682-3090	Plastic case					

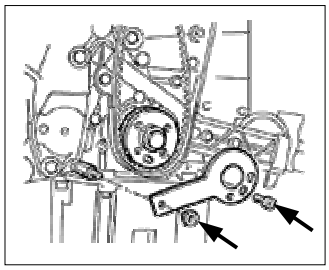
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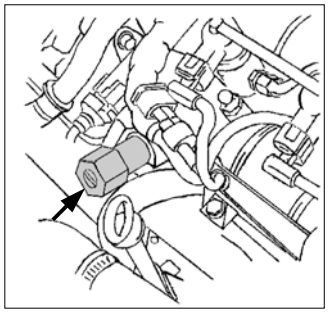
KL-1682-40 K

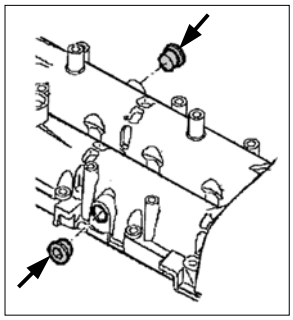
Alfa Romeo, Fiat, Lancia

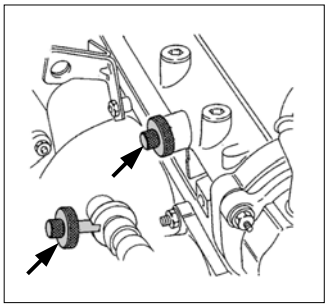








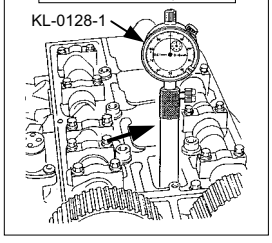




KL-1681-10



Alfa Romeo, Fiat



KL-1682-40 K Locking Tool Set

Alfa Romeo, Fiat, Lancia

Applicable for Alfa Romeo, Fiat and Lancia 1,7 and 1,9 D/TD; 1,3; 1,9; 2,3 and 2,4 JTD Diesel engines.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

Contents:

Part No.	Description	Vehicles	Engines
KL-1682-401	Locking tool for camshaft	Fiat Tipo, Tempra, Ducato Lancia Delta, Dedra Alfa 145, 146, 155	1,9 TD
KL-1682-402	Locking tool for camshaft	Fiat Ducato, Fiorino, Palio, Siena, Punto, Tipo, Uno	1,7 D / TD
KL-1682-403	Locking tool for camshaft	Fiat Bravo, Brava, Ducato, Talento, Tipo	1,9 D
KL-1682-404	Locking tool for camshaft (2 pcs.)	Alfa 147, 156, 166, GT Fiat Stilo	1,9 JTD 16V 2,4 JTD 20V 1,9 MJ
KL-1682-405	Locking tool for crankshaft	Fiat Ducato, Fiorino, Palio, Siena, Punto, Tipo, Uno Alfa 145, 146 155 Fiat Bravo, Brava, Ducato, Tipo	1,7 D / TD 1,9 D / TD
KL-1682-406	Locking tool for crankshaft	Alfa 145, 146, 147, 156 Fiat Doblò, Doblò Cargo, Marea, Punto (new), Stilo Alfa 156, 166 Fiat Stilo Fiat Punto, Stilo, Idea Alfa 156, 166, GT Lancia Kappa Fiat Marea	1,9 JTD 1,9 JTD 16V 1,9 MJ 2,4 JTD 2,4 JTD 20V
KL-1682-407	Locking tool for crankshaft	Alfa Romeo Fiat / Lancia	1,9 JTD euro 4
KL-1682-408	Locking tool for camshaft (2 pcs.)	Fiat Doblo, Idea, Panda (new), Punto (new), Lancia Ypsilon, Musa, Palio, Siena	1,3 JTD
KL-1682-409	Locking tool for crankshaft	Fiat Doblo, Idea, Panda (new), Punto (new), Lancia Ypsilon, Musa, Palio, Siena	1,3 JTD
KL-1682-410	Locking tool for camshaft (2 pcs.)	Fiat Ducato	2,3 JTD
KL-1682-411	Locking tool for crankshaft	Fiat Ducato	2,3 JTD
	Plastic case (with insert)		

KL-1681-10 TDC adjusting tool

Alfa Romeo; Fiat

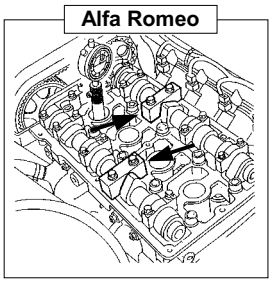
Applicable for Alfa Romeo and Fiat petrol engines.

This tool is needed to determine the TDC position at cylinder 1. (It can only be used with dial gauge **KL-0128-1**.)

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KL-1682-21 K





KL-1682-21 K Locking Tools Set

Applicable for Alfa Romeo Twin Spark 1.4; 1.6; 1.8 and 2.0 L 16V TwinCam petrol engines (Engine code: 162.01, 322.01, 323.01, 323.10, 335.03, 671.06, 672.04 and 676.01) e.g. Alfa Romeo 145, 146, 147, 155, 156, 166, Spider and GTV.

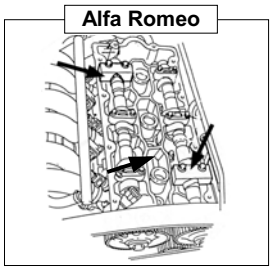
To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1682-211	Locking Tool Set for camshafts 1,8 / 2,0 L	1
KL-1682-212	Locking Tool Set for camshafts 1,4 / 1,6 L	1
KL-1682-213	Tensioning Tool for belt tensioner pulley (timing belt)	1
KL-1682-214	Tensioning Tool for belt tensioner pulley (balancer shaft)	1
KL-1682-2190	Plastic case	1

KL-1682-22 K





KL-1682-22 K Locking Tools Set

Applicable for Alfa Romeo 3,0L; 2,5L V6 24V TwinCam engine (AR324.01) e.g. Alfa Romeo 156 (97-).

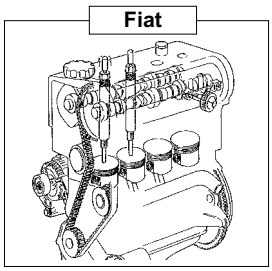
To prevent the camshaft and the timing belt tensioner from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1682-221	Locking Tool Set for camshafts (4 Pcs.)	1
KL-1682-222	Tensioning Tool (11 Pcs.)	1
KL-1682-2290	Plastic case	1

KL-1682-10 K





KL-1682-10 K Locking Tools Set

Applicable for Fiat 1,2 16 V TwinCam petrol engines (engine code: 176 B9.000, 182 B2.000 and 188 A5.000) e.g. Fiat Punto, Brava and Bravo.

To determine the specified piston position and prevent the camshafts from turning or hold them in position when changing the timing belt or during other engine repairs.

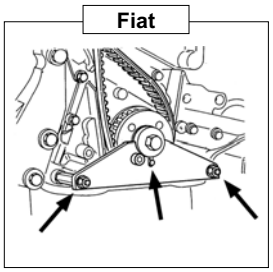
consists of:

Part-No.	Description	Qty.
KL-1682-1010	Piston position determination tool	2
KL-1682-1020	Locking Tool for camshaft	2
KL-1682-103	Reaction wrench	1
KL-1682-1090	Plastic case	1

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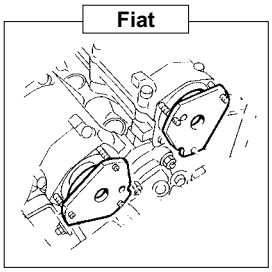
KL-1682-11 K





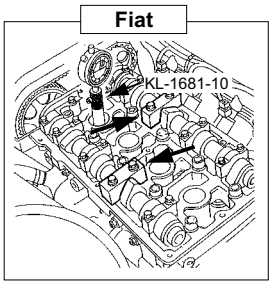
KL-1682-12 K





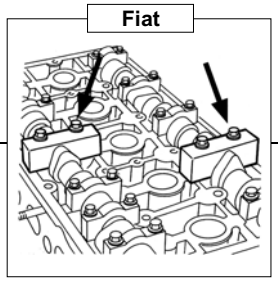
KL-1682-13 K





KL-1682-14





KL-1682-15



KL-1682-11 K Locking Tool Set

Applicable for Fiat 1,4 12 V petrol engines (182 A3.000, 182 A5.000) e.g. Fiat Brava, Bravo, Marea, Marea Weekend.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty
KL-1682-111	Locking Tool for camshaft	1
KL-1682-112	Locking Tool for crankshaft	1
KL-1682-1190	Plastic case	1

KL-1682-12 K Locking Tool Set

Applicable for Fiat 1,6 16 V TwinCam petrol engines (182 A4.000, 182 A6.000) e.g. Fiat Brava, Bravo, Marea, Marea Weekend, Multipla, Palio.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1682-123/1	Camshaft Setting Tool (Inlet)	1
KL-1682-123/2	Camshaft Setting Tool (Exhaust)	1
KL-1682-122	Flywheel Locking Tool	1
KL-1682-121	Adjusting Tool for tensioner pulley	1
KL-1682-1290	Plastic case	1

KL-1682-13 K Locking Tool Set

Applicable for Fiat 1,8 16 V TwinCam petrol engine (182 A2.000, 183 A1.000) e.g. Fiat Barchetta, Brava, Bravo, Coupe, Marea, Marea Weekend.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1682-132	Camshaft Locking Tool “red “	1
KL-1682-133	Camshaft Locking Tool “blue“	1
KL-1682-131	Flywheel Locking Tool	1
KL-1682-134	Adjusting Tool for tensioner pulley	1
KL-1682-1390	Plastic case	1

KL-1682-14 Camshaft Locking Tool

Applicable for Fiat 2,0 20 V TwinCam petrol engine (182 A1.000, 175 A3.000) ’95-onwards e.g. Fiat Bravo, Coupe, Marea, Marea Weekend.

To prevent the camshaft from turning or to keep it in a specific position when changing a timing belt or during other engine repairs.

KL-1682-15 Camshaft Locking Tool

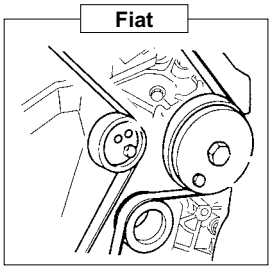
Applicable for Fiat 2,0 Turbo 20 V TwinCam petrol engine (182 A1.000, 175 A3.000) e.g. Fiat Bravo, Coupe.

To prevent the camshaft from turning or to keep it in a specific position when changing a timing belt or during other engine repairs.

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KL-1682-16





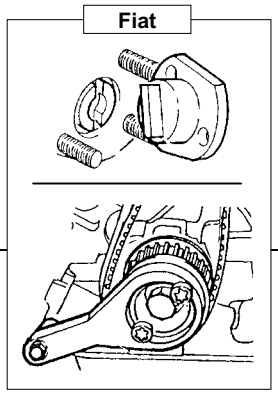
KL-1682-16 Injection pump locking tool

Applicable for Fiat 1.7 and 1.9 L diesel/turbodiesel engines with a non-adjustable camshaft timing belt pulley.
e.g. Fiat Croma 1,9TD; Ducato 1,9D (-94); Duna 1,7D; Fiorino 1,7D (-94); Punto 1,7D/TD (93-95); Regata 1,7D; Ritmo/Strada 1,7D; Talento 1,9D; Tempra 1,9D; Tipo 1,7D, Tipo 1,9D/TD; Uno 1,7D.

To prevent the injector pump gearwheel from turning or to keep it in position during a timing belt change and when pulling off the pump to remove it or for an engine repair.

KL-1682-17





KL-1682-17 Locking Tool Set

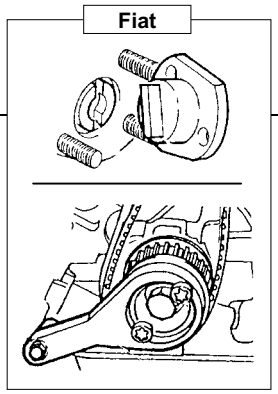
Applicable for Fiat 1.7 L diesel / turbo diesel engines with an adjustable camshaft timing belt pulley, e.g. Fiat Punto (96-97).

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

The tool set contains an adjusting gauge for the camshaft and a locking tool for the crankshaft.

KL-1682-18





KL-1682-18 Locking Tool Set

As KL-1682-17,
but for use on Fiat 1.9 L diesel engines with an adjustable camshaft timing belt pulley, e.g. Fiat Ducato (94-), Tempra (90-) and Tipo (91-95).

KL-1682-19

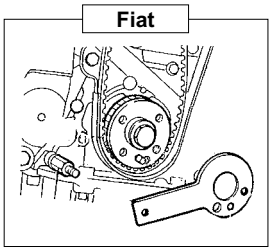


KL-1682-19 Locking Tool Set

As KL-1682-17
but for use on Fiat 1.9 L turbodiesel engines with an adjustable camshaft timing belt pulley, e.g. Fiat Ducato (94-), Tempra (90-) and Tipo (88-).

KL-1682-20 K





KL-1682-20 K Locking Tool Set

Applicable for Fiat 1,9 D/TD/JTD; 2,4 TD/JTD and PSA 1,9 D/TD, 2,1 TD diesel engines (engine code: 160 A7.000, 182 A7.000, 182 A8.000, 182 B4.000, 185 A2.000, 185 A6.000, 188 A2.000 and 188 A3.000) e.g. Fiat Brava, Bravo, Marea, Marea Weekend, Multipla, Punto, Scudo, Ulysse.

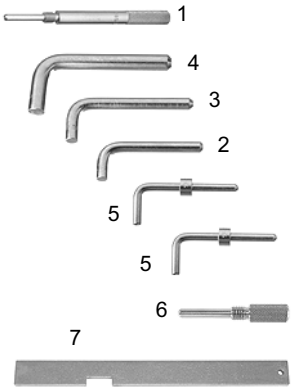
To prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

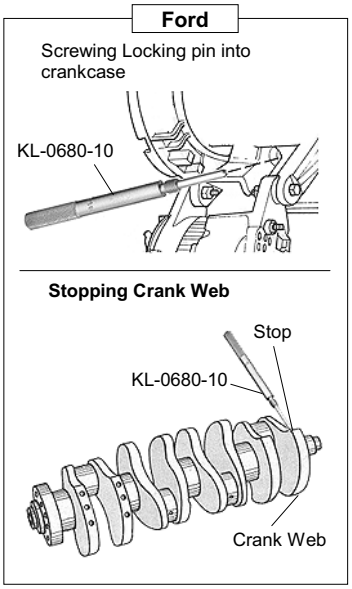
consists of:

Part-No.	Description	Qty.
KL-1380-2225	Fixing bolt (camshaft/injection pump shaft) M8	3
KL-1682-203	Locking pin for injection pump shaft	1
KL-1380-2215	Locking pin for fly wheel (angled)	1
KL-1682-201	Flywheel Locking Pin	1
KL-1682-202	Locking Tool for crankshaft	1
KL-1682-2090	Plastic case	1

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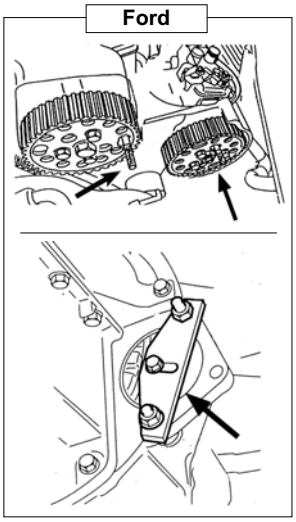
KL-0680-100 A





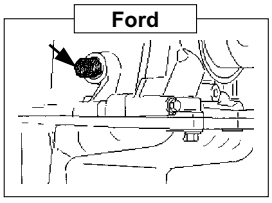
KL-0680-105 K





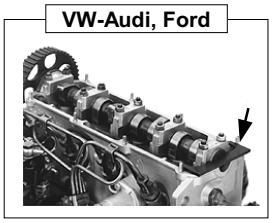
KL-0680-103





KL-0280-9





KL-0680-100 A Locking Tool Set for Ford

To lock and position engine components such as Camshafts, Crankshaft and Injection Pump Pulley during timing-belt replacement or engine repairs.
The correct relationship between Camshaft, Injection Pump (or correct ignition timing) to the Crankshaft during the replacement of the timing-belt or engine repairs is absolutely essential.
Only if the alignment of all components is correct will optimal power be developed and any risk of engine damage be eliminated!

Advantages:

- Correct timing adjustment.
- Quick and easy engine repairs.
- Tempered locking pins and “L-form” allows a durable usage and easy installation.

Composition:

Pos.	Part No,	Description	Qty.
	KL-0680-100 A	**Locking Pin Set for Ford**	**1**
	consists of:		
1	KL-0680-10	Locking pin for crankshaft Ford	1
2	KL-0680-11	Locking pin Ø8,3	1
3	KL-0680-12	Locking pin Ø9,5	1
4	KL-0680-13	Locking pin Ø12,9	1
5	KL-0680-14	Locking pin Ø6	2
6	KL-0680-16	Locking pin for crankshaft	1
7	KL-0680-15	Fixing Gauge for camshaft	1

Specifications:

Part No.	Length	Ø	Ø-Handle	Thread	Weight
KL-0680-100	-	-	-	-	0,4 kg
KL-0680-10	150 mm	6,0 mm	12 mm	M10	-
KL-0680-11	77 mm	8,3 mm	-	-	-
KL-0680-12	95 mm	9,5 mm	-	-	-
KL-0680-13	105 mm	12,9 mm	-	-	-
KL-0680-14	78 mm	6,0 mm	-	-	-

KL-0680-105 K Locking Tool Set

Applicable for Ford 1,8 D/TD/TDCi diesel and 1,25 - 2,0 16V Zetec petrol engine e.g. Ford Fiesta, Escort/Orion, Focus, Puma, Sierra, Mondeo, Cougar, Courier/Kombi, P100 and Mazda 121.

Designed for pulling off the camshaft timing belt wheel and locking or positioning the engine output shafts such as the camshaft and the crankshaft. Required for changing the timing belt or for engine repair.

consists of:

Part-No.	Description	Qty.
KL-0680-1051	Locking Tool for camshaft	1
KL-0680-1052	Locking Tool for crankshaft (long)	1
KL-0680-1053	Puller for camshaft pulley	1
KL-0680-1054	Locking Tool Ø 6,0 mm (2 pcs.)	1
KL-0680-1055	Locking Tool Ø 9,5 mm	1
KL-0680-1056	Locking Tool for crankshaft (short)	1
KL-0680-1057	Locking Tool for crankshaft (middle)	1
KL-0680-1058	Locking Tool for flywheel	1
KL-0680-1090	Plastic case	1

KL-0680-103 Locking Pin Set

Applicable for Ford 1,25; 1,4; 1,6; 1,7; 1,8; 2,0 L petrol and 1,8L diesel engines.

To prevent the camshaft to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part No.	Description	Qty.
KL-0680-10	Locking pin for crankshaft Ford	1
KL-0680-16	Locking pin for crankshaft	1
KL-0680-17	Locking pin for crankshaft	1

KL-0280-9 Fixing Gauge

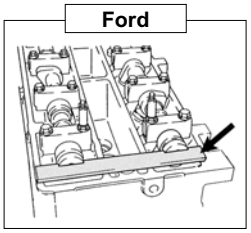
Applicable for VW-Audi, Ford, Seat, Škoda, Volvo etc. e.g. Ford 1,6 L and 1,9 L Diesel engines.

The tool guarantees the correct positioning of camshaft and pump shaft to the crankshaft when exchanging the timing belt or removing or installing the injection pump. (Correct timing adjustment).

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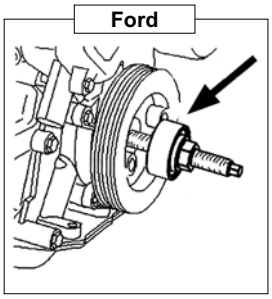
KL-0680-15





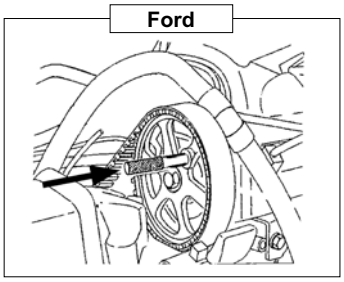
KL-0680-20





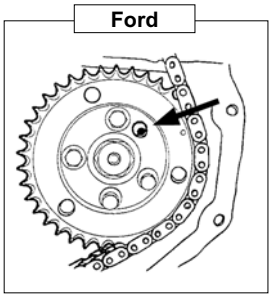
KL-0680-220

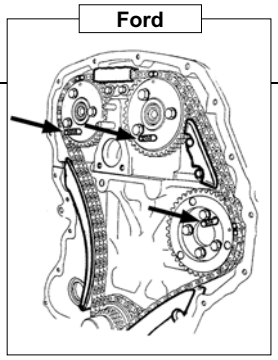




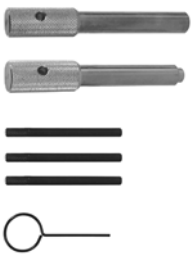
KL-0680-21 K







KL-0680-210



Note: Further Ford locking pin sets see page 6.4-04 and 6.4-05

KL-0680-15 Fixing Gauge for camshaft

Applicable for Ford ZETEC SE engines e.g. Fiesta 96 onwards, Focus 98 onwards, Puma 97 onwards and 1,25 L / 1,4 L from'95-'98; 1,6 L 16V / 1,8 L 16V / 2,0 L 16V from '91-'98 and 1,8D engines 97 onwards.

To prevent the camshafts from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

KL-0680-20 Vibration damper installation and removal tool

Applicable for Ford Zetec engine e.g. Ford Fiesta 1,25; 1,4; 1,6 16V, Puma 1,4; 1,6; 1,7 16V and Mazda 121 1,25 16V.

Designed for removing and installing the vibration damper. Required for engine repair or changing the timing belt.

consists of:

Part-No.	Description	Qty.
KL-0680-201	Reaction Wrench	1
KL-0680-202	Pull-off plate for camshaft belt pulley	1
KL-0680-203	Assembly tool for crankshaft belt pulley	1

KL-0680-220 Locking Pin Set

Applicable for Ford e.g. Fiesta, Fusion, Focus C-Max 1.4 / 1.6 TDCi; Citroën e.g. C3 (from '02-'04) and Peugeot e.g. 206, 307 (01-04) 1.4 & 1.6 HDi [incl. 16v.] (Engine code: DV4TD (8HW/8HX), DV4TED4 (8HV/8HY DV6TED4, F6JA)

To prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-0680-2201	Locking pin Ø 11,6	1
KL-0680-2202	Locking pin Ø 5	1
KL-0680-2203	Locking pin Ø 8	1

KL-0680-21 K Locking Tool Set

Applicable for Ford 2.0 / 2.4 16V TDdi/TDCi engines e.g. Mondeo, Transit ('01-'04) etc. (Engine code: FMBA/B, D5BA, ABFA, D3FA, F3FA, D2FA, D4FA, F4FA)

To prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) to keep them in a specific position when changing a timing belt or during other engine repairs and to remove and replace the injection pump.

consists of:

Part-No.	Description	Qty.
KL-0680-2100	Mounting/demounting tool for the injection pump	1
KL-0680-2101	Locking pin crankshaft Ø 14	1
KL-0680-2102	Locking pin crankshaft Ø 14 / Ø 10	1
KL-0680-2103	Locking pin crankshaft Ø 6 (3 pcs)	1
KL-0680-2104	Locking pin Ø 1,9	1
KL-0680-2190	Plastic case	1

KL-0680-210 Locking Pin Set

Applicable for Ford 2.0 / 2.4 16V TDdi/TDCi engines e.g. Mondeo, Transit ('01-'04) etc. (Engine code: FMBA/B, D5BA, ABFA, D3FA, F3FA, D2FA, D4FA, F4FA)

As **KL-0680-21 K**, to prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) to keep them in a specific position when changing a timing belt or during other engine repairs.

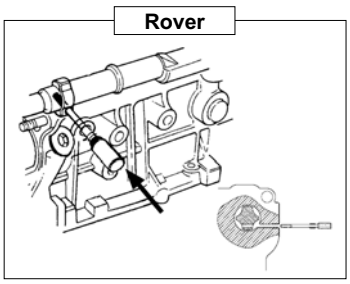
consists of:

Part-No.	Description	Qty.
KL-0680-2101	Locking pin crankshaft Ø 14	1
KL-0680-2102	Locking pin crankshaft Ø 14 / Ø 10	1
KL-0680-2103	Locking pin crankshaft Ø 6 (3 pcs)	1
KL-0680-2104	Locking pin Ø 1,9	1

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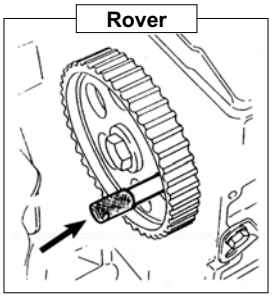
KL-1780-14 K





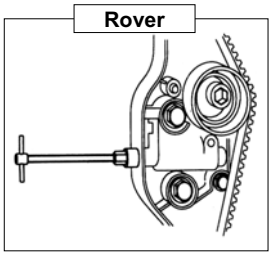
KL-1780-10 K





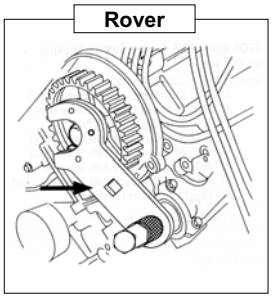
KL-1780-11





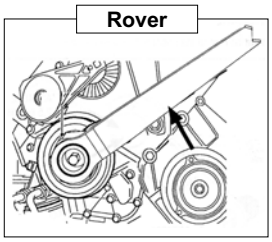
KL-1780-12 K





KL-1780-13





KL-1780-14 K Locking Tool Set

Applicable for Honda / Rover 1.6 VTi/VTEC, 1.8, 2.0, 2.2, 2.2 VTEC & 2.3i petrol engines (B, D, F & H Series) e.g. Honda Civic, Integra R, Accord, Prelude & Shuttle (87-04); Rover 216/416GTi & 600 Series and Landrover Freelander.

To prevent the engine shafts (e.g. camshafts, balancer shaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs

consists of:

Part-No.	Description	Qty.
KL-1780-140	Clamp for tensioner	1
KL-1280-205	Hex. screw M6 x 45	1
KL-1780-107	Locking pin for balancer shaft Ø 7,3 / 6,1	1
KL-1780-141	Locking pin for camshaft Ø 4,9	1
KL-1780-1490	Plastic case	1

KL-1780-10 K Locking Tool Set

Applicable for Rover diesel and petrol engines (inclusive Di and 16V). Installed e.g. by Citroën, Honda, Fiat, LDV, Land Rover, Peugeot, TATA.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1780-101	Locking Tool Ø 6,6 mm	2
KL-1780-103	Locking Tool Ø 6,8 mm	2
KL-1780-104	Locking Tool Ø 5,0 mm	2
KL-1780-102	Locking pin for injection pump Ø 9,4 mm	1
KL-1380-2211	Locking pin for injection pump Ø 5,9 mm	1
KL-1380-2215	Locking pin for fly wheel (angled) Ø 7,7 mm	1
KL-1380-2224	Locking pin for fly wheel (angled) Ø 5,8 mm	1
KL-1380-2225	Hex bolt M8 x 40	3
KL-1780-105	Locking Tool for camshaft (orange)	1
KL-1780-106	Locking Tool for camshaft (black)	1
KL-1780-107	Locking pin for balancer shaft Ø 7,3 mm / Ø 6,1 mm	1
KL-1280-205	Hex bolt M6 x 45	1
KL-1380-2230	Reaction wrench 8 mm□	1
KL-1780-108	Reaction wrench for tensioner	1
KL-1780-1090	Plastic case	

KL-1780-11 Locking Tool

Applicable for Rover 2,0 diesel engine (20T2N / 20T2R "L-Series") e.g. Rover 220D / 420D / 620D, Land Rover Freelander and Honda Civic / Accord 2,0TD.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1780-102	Locking pin for injection pumpØ 9,4 mm	1
KL-1780-103	Locking pin for fly wheel Ø 6,8 mm	1
KL-1780-108	Adjusting tool for tensioner	1

KL-1780-12 K Locking Tool Set

Applicable for Rover 2,0 and 2,5 V6 TwinCam engines (KV6) e.g. Rover 45, 75 and Land Rover Freelander.

To prevent the camshafts from turning or to keep them in a specific position and to adjust the timing belt tensioner when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1780-121	Locking Tool for camshaft	2
KL-1780-122	Adapter for camshaft locking tool (silver)	2
KL-1780-123	Adapter for camshaft locking tool (gold)	2
KL-1380-2226	Retaining pin	1
KL-1780-124	Aligning tool for rear camshaft sprockets	1
KL-1780-125	Spreading tool for rear camshaft sprockets	1
KL-1780-126	Guide pin for rear camshaft sprockets	2
KL-1780-1290	Plastic case	1

KL-1780-13 Reaction wrench for crankshaft

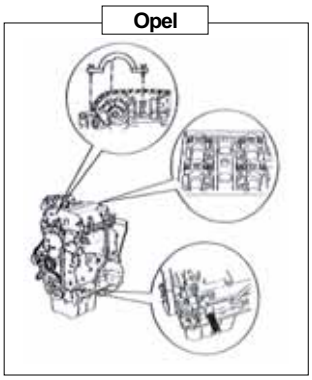
Applicable for Rover 2,0 and 2,5 V6 TwinCam engines (KV6) e.g. Rover 45, 75 and Land Rover Freelander.

For counter-holding the crankshaft belt pulley when screwing and unscrewing the central crankshaft bolt (e.g. for changing the timing belt).

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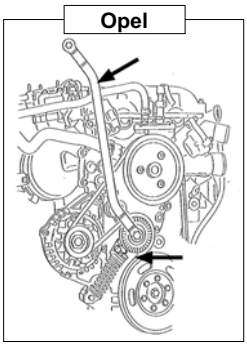
KL-0482-43 K





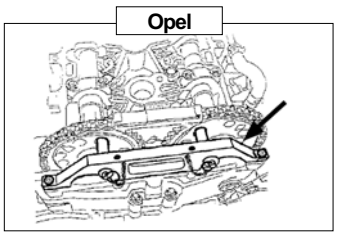
KL-0484-11





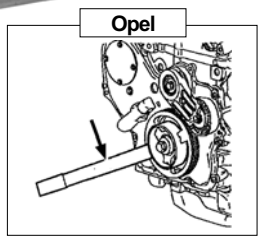
KL-0482-440





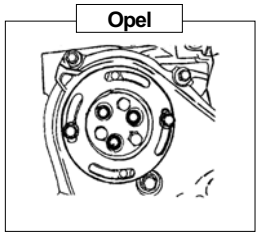
KL-0482-441





KL-0482-442





KL-0482-43 K Locking Tool Set

Applicable for Opel TwinCam 1,0 12V; 1,2 and 1,4 16V petrol engines (X10XE, Z10XE, Z10XEP, X12XE, Z12XE and Z14XEP) e.g. Corsa, Agila, Astra and Meriva etc.

To lock the timing chain tensioner and the engine shafts, camshafts and crankshaft by changing the timing chain or during other engine repairs.

consists of:

Part No.	Description	Qty.
KL-0482-431	Fixing Gauge for Camshaft	1
KL-0482-433	Fixing Gauge for Pulse generator wheel (Camshaft speed sensor)	1
KL-0482-432	Locking Pin for Crankshaft	1
KL-0482-434	Locking pin for timing chain tensioner	1
KL-0482-4390	Plastic case	1

KL-0484-11 V-belt tensioner

Applicable for Opel TwinCam 1,0 12V; 1,2 and 1,4 16V petrol engines (X10XE, Z10XE, Z10XEP, X12XE, Z12XE and Z14XEP) e.g. Corsa, Agila, Astra and Meriva etc.

To remove the auxiliary belt the tightener has to be set to zero position by using the clamping key **KL-0484-110** and locked in place with the arresting pin **KL-0484-111.**

consists of:

Part No.	Description	Qty.
KL-0484-110	V-belt tensioner Torx E18 / E14	1
KL-0484-111	Locking pin Ø 4	1

KL-0482-440 Locking Tool Set

Applicable for Opel TwinCam 2,2 16V petrol engines (Z22SE) e.g. Astra, Signum, Speedster, Vectra and Zafira etc.

To lock or position the camshaft and the timing chain tensioner during engine repairs.

consists of:

Part No.	Description	Qty.
KL-0482-4401	Locking tool for camshaft Opel 2.2 16V	1
KL-0482-4402	Locking pin Ø 1,3	1

KL-0482-441 Reaction Wrench

Applicable for Opel TwinCam 2,2 16V petrol engines (Z22SE) e.g. Astra, Signum, Speedster, Vectra and Zafira etc.

To counterhold the crankshaft belt pulley during loosening and tightening of the crankshaft center screw (e.g. in case of engine repairs).

KL-0482-442 Locking Tool water pump

Applicable for Opel TwinCam 2,2 16V petrol engines (Z22SE) e.g. Astra, Signum, Speedster, Vectra and Zafira etc.

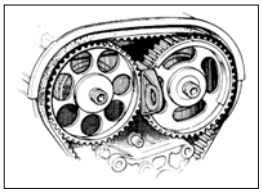
To remove and install the water pump it is necessary to lock the water pump belt pulley by means of the tool **KL-0482-442.**

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KL-0482-30


KL-0482-301


KL-0482-302



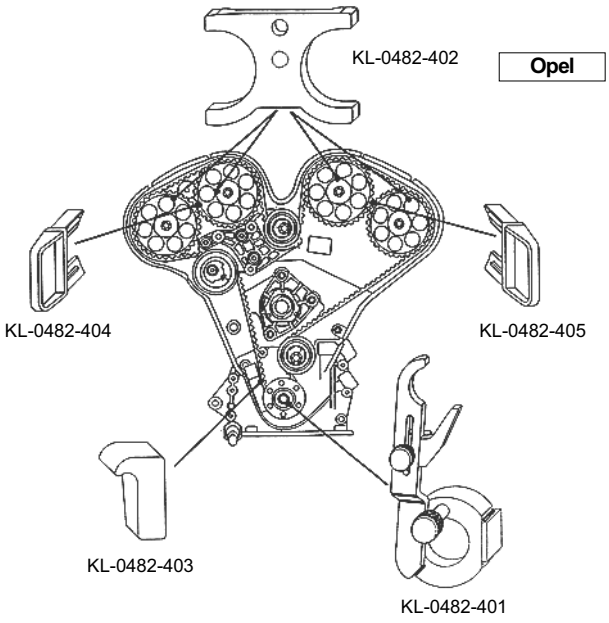
KL-0482-400

Opel


KL-0482-404


KL-0482-405

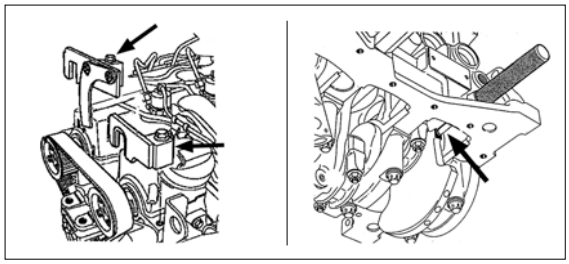
KL-0482-40 K



KL-1280-24 K

Opel, Renault, Nissan





KL-0482-30 Locking Tool Set

This Tool Set can be used for locking the Camshaft Wheels together. Therefore preventing the camshaft from turning whilst the gear belt is removed.

consists of:

KL-0482-301: Locking Extractor for Camshaft

- Opel 1,8 L 16V
- Opel 2,0 L 16V

KL-0482-302: Locking Extractor for Camshaft

- Opel 1,4
- Opel 1,6 L 16V

KL-0482-400 Locking Tool Set

For Opel/Vauxhall V6 Engine.

Ensures that the position of the two camshafts to one another remains fixed, so preventing any rotation of the camshafts during changing the timing belt.

KL-0482-40 K Locking Tool

Opel/Vauxhall V6 Engine

The Looking Tool **KL-0482–40 K** (for Opel/Vauxhall V6 engines) contains all the necessary tools required for locking the crankshaft and camshafts during service work. For example removal and replacement of the timing belt on the Ecotec V6 multi-valve engine.

The tool set allows the precise positioning of the camshaft drive pulleys in relation to the TDC (top dead centre) position of the crankshaft.

Note: Failure to maintain the relative position of the camshafts to the crankshaft can lead to loss of power or eventually to serious damage to the engine.

Contents:

Part No.	Description	Qty.
KL-0482-40 K	**Looking Tool Opel/Vauxhall V6**	**1**
consists of:		
KL-0482-401	Locking Tool for Crankshaft Opel/Vauxhall V6	1
KL-0482-402	Fixing Gauge for Camshaft Opel/Vauxhall V6	1
KL-0482-403	Retaining Tool for Timing Belt Opel/Vauxhall V6	1
KL-0482-404	Locking Tool red for Camshaft Oper/Vauxhall V6	1
KL-0482-405	Locking Tool green for Camshaft Opel/Vauxhall V6	1

KL-1280-24 K Locking Tool Set

Applicable for Renault, Opel and Nissan 1,5; 1,9; 2,2 and 2,5 L direct injection diesel engines (K9K, F9Q, G9T and G9U) e.g. Renault Clio, Megane, Scenic, Laguna, Espace, Kangoo, Trafic and Master. Nissan Micra, Kubistar, Primastar, Interstar. Opel Vivaro and Movano.

To prevent the engine shafts (camshaft, crankshaft) from turning or to keep them in a specific position and to adjust the timing belt tensioner when changing a timing belt or during other engine repairs.

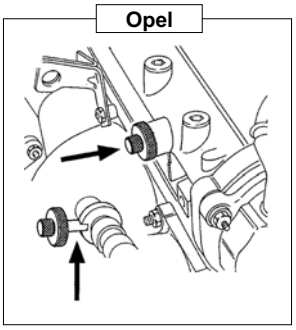
Contents:

Part No.	Description	Qty.
KL-1280-24 K	**Locking Tool Set Renault 1.5/1.9/2.2/2.5 dCi**	**1**
consists of:		
KL-1280-234	Locking pin for crankshaft Ø 7,9	1
KL-1280-233	Locking pin Ø 7,9	1
KL-1280-240	Timing belt tensioner tool	1
KL-1280-241	Hex. Screw M6 x 60	1
KL-1280-242	Locking tool for camshaft	1
KL-1280-243	Locking tool for crankshaft	1
KL-1280-2490	Plastic case	1

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KL-0482-45 K





KL-0482-45 K Locking Tool Set

Applicable for Opel 1.3 CDTi diesel engines (Z13DT) e.g. Corsa etc.

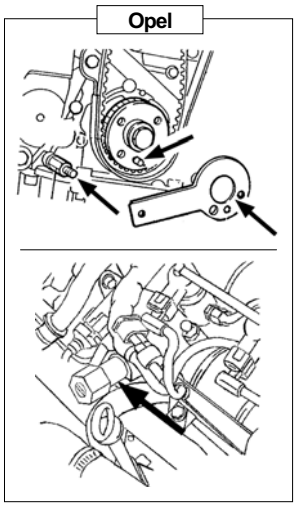
To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position and to lock the timing chain tensioner when changing a timing belt or during other engine repairs.

Contents:

Part-No.	Description	Qty.
KL-0482-45 K	**Locking Tool Set Opel 1.3 CDTi**	**1**
consists of:		
KL-0482-450	Locking tool for camshaft (2 pcs.)	1
KL-0482-451	Locking pin for crankshaft Ø 6	1
KL-0482-434	Locking pin for chain tensioner Ø 2,4	1
KL-0482-4590	Plastic case	1

KL-0482-46 K





KL-0482-46 K Locking Tool Set

Applicable for Opel 1.9 CDTi diesel engines (Z19DT, Z19DTH) e.g. Opel Vectra, Signum etc.

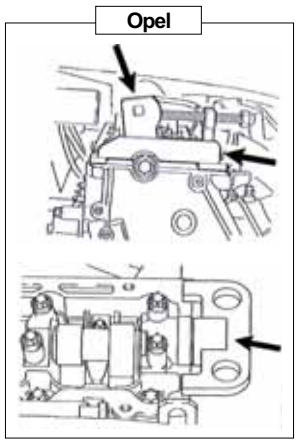
To prevent the engine shafts (e.g. camshaft, crankshaft) from turning or to keep them in a specific position and to adjust the timing belt tensioner when changing a timing belt or during other engine repairs.

Contents:

Part-No.	Description	Qty.
KL-0482-46 K	**Locking Tool Set Opel 1.9 CDTi**	**1**
consists of:		
KL-1682-202	Locking tool for crankshafts	1
KL-0482-461	Locking pin for camshaft (2 pcs.)	1
KL-0482-462	Locking pin Ø 3,7	1
KL-0482-4690	Plastic case	1

KL-0482-41 K





KL-0482-41 K Locking Tool Set

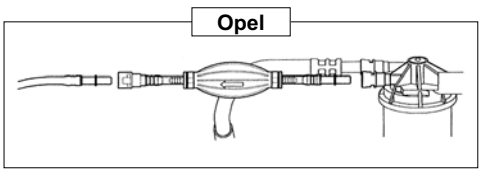
Applicable for Opel 2,0 and 2,2 Ecotec diesel engines (X20DTL, X20DTH, X22DTH) e.g. Opel/Vauxhall Astra, Astra Caravan, Zafira, Vectra, Omega, Sintra and Frontera.

Designed for locking or positioning the engine output shafts such as the camshaft, crankshaft, injection pump and the camshaft wheel when setting the timing. Required for changing the timing-chain or for engine repair.

Contents:

Part-No.	Description	Qty.
KL-0482-41 K	**Locking Tool Set**	**1**
consists of:		
KL-0482-411	Fixing Gauge for Camshaft	1
KL-0482-413	Locking Pin for Injection Pump	1
KL-0482-412	Locking Pin for Crankshaft	1
KL-0482-414	Adjusting Tool for Camshaft Wheel	1
KL-0482-4190	Plastic case	1

KL-0482-42





KL-0482-42 Diesel suction pump

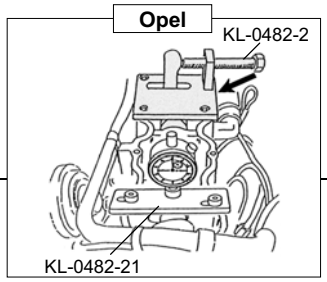
Applicable for Opel/Vauxhall 2,0 and 2,2 Ecotec diesel engines (X20DTL, X20DTH, X22DTH) with VP 44 injection pump.

This pump is needed to bleed the fuel system, for example if it has been opened for fuel filter renewal or engine repair work.

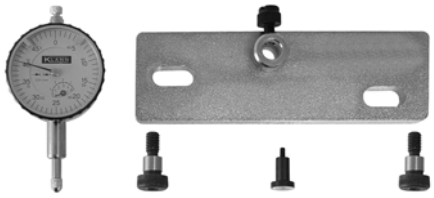
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KL-0482-2





KL-0482-21



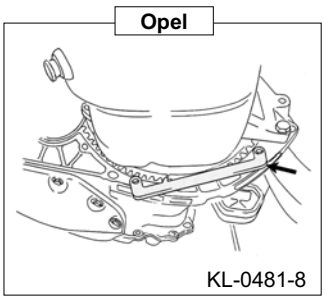
KL-0481-90



KL-0481-8

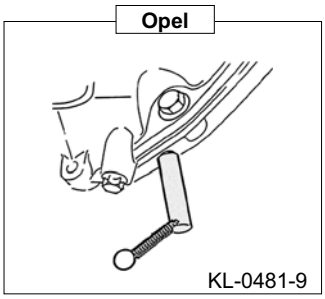


KL-0481-9



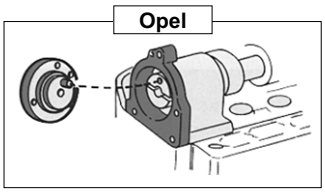


KL-0481-4



KL-0481-1





KL-0482-1



Opel

KL-0482-2 Adjusting Tool for Camshaft

Applicable for Opel 1,6D and Opel 1,7D '87 onwards.

With this Adjusting Tool **KL-0482-2** it is possible to turn the camshaft to the right position with the crankshaft (TDC-Position). The adjusting screw allows very fine adjustment.

KL-0482-21 Setting Gauge for Camshaft

Applicable for Opel 1,6 D and Opel 1,7 D '87 onwards.

To check the right position of the camshaft while setting the TDC position by using the adjusting key **KL-0482-2**.

Contents:

Part No.	Description	Qty.
KL-0482-21	Setting Gauge for Camshaft	**1**
consists of:		
KL-0482-210	Setting Gauge for Camshaft	1
KL-0128-0	Dial gauge Ø 40 mm	1

KL-0482-210 Camshaft Setting Gauge (not Ill.)

As **KL-0482-21**, but without the dial gauge **KL-0128-21**.

KL-0481-90 Locking Tool Set Opel/Vauxhall

This tool set allows the precise location of the crankshaft in the TDC-Position against the fly-wheel.

Consists of:

KL-0481-8 TDC-Locking Tool for Crankshaft
Application: Astra 1,7 D up to '97
Adjusting Tool for the TDC-Marking on the flywheel.

KL-0481-9 Locking Pin for Flywheel/Crankshaft
Application: Astra 1,7 D from '98
Pin for locking the crankshaft in the TDC-Position.

KL-0481-4 Locking Tool for Flywheels
Application: Opel/Vauxhall Diesel-Engines (Isuzu) with 1,5 and 1,7 and for Opel/Vauxhall Fuel-Engines (OHC) from 1,2 to 2,0.

KL-0481-1 Locking Tool for Camshaft Opel/Vauxhall

Applicable for Opel/Vauxhall 1,6 D up to '87
and for Opel/Vauxhall petrol engines (OHC) from 1,2 l to 2,0 l.

KL-0482-1 Drive Pulley Remover

Puller for removal of the drive pulley of the fuel-injection pump fitted to Opel/Vauxhall 1,6 litre diesel.

Note: KL-1280-20 K Locking Tool Set Applicable for Opel / Vauxhall e.g. Arena 1,9 / 2,5 D and Movano 2,5 / 2,8 D see page 6.4-29.

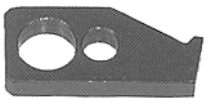
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KL-0484-10

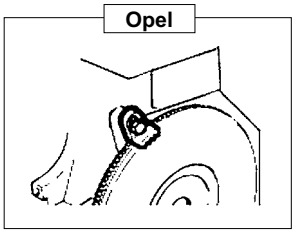
Opel, VW-Audi



KL-0481-7



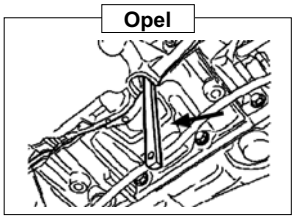
Opel



KL-0481-71



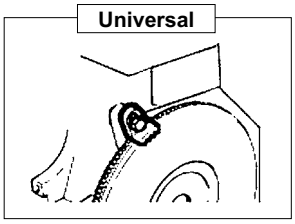
Opel



KL-0182-1



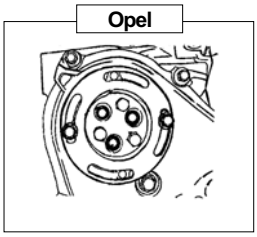
Universal



KL-0482-442



Opel



KL-0123-2

Opel, Ford



KL-0483-1 (46 mm)

Opel



KL-0484-10 Locking Tool

To block the automatic clamping role of the fan belt on **Opel/Vauxhall** vehicles with Eco Tec-engines.

Also applicable with **Audi** and **VW** engines.

Ø 4,0 / 6,0 mm Weight: ..... 70 g

KL-0481-7 Flywheel Locking Tool

To lock the flywheel when the gearbox is dismounted.

Application: Opel/Vauxhall engines
OHV 1,0, 1,2 l; OHC 1,2 - 1,3 - 1,4 - 1,6 - 1,8 - 2,0 l; DOHC 2,0 l 16V; OHC 1,5 D - 1,5 DT - 2,0 D - 2,3 DT; CIH 4- u. 6-cylinder 2,2 - 2,4 - 2,5 - 3,0 l

KL-0481-71 Flywheel Locking Tool

Application: Opel/Vauxhall engines
1,4 and 1,6 Eco-Tec 16 V; 1,2 - 1,6 OHC (with aluminium oilpan) and 1,8 16V (X18E1, X18XE1).

To lock the flywheel.

KL-0182-1 Flywheel Locking Tool

To lock the flywheel when the gearbox is dismounted.
Universal application.

KL-0482-442 Locking Tool water pump

Application for Opel 2,2 16V TwinCam petrol engines (Z22SE) e.g. Astra, Signum, Speedster, Vectra and Zafira etc.

To remove and install the water pump it is necessary to lock the water pump belt pulley by means of the tool **KL-0482-442**.

KL-0123-1 Reaction Wrench 32 mm (not ill.)

For reaction of the visco-coupling drive when removing or installing the visco-coupling on **BMW and Ford** vehicles.

Length: ..... 280 mm

KL-0123-2 Reaction Wrench 36 mm

For reaction of the visco-coupling drive when removing or installing the visco-coupling on **Ford, Opel/Vauxhall and GM** vehicles.

Length: ..... 280 mm

KL-0483-1 Reaction Wrench 46 mm

For twisting the water pump when tightening the belt on **Opel/Vauxhall and GM** OHC-engines.

KL-0483-2 Reaction Wrench 41 mm (not ill.)

For twisting the water pump when tightening the belt on **Opel/Vauxhall and GM** OHC-engines.

Advantages: • Safe reaction of the visco-coupling • No damage to the visco-coupling • High quality of the wrench due to special manufacturing process.

Specifications: (Reaction Wrench):

Part No.	KL-0123-1	KL-0123-2	KL-0483-1	KL-0483-2
Width Across Flats	32 mm	36 mm	46 mm	41 mm
Overall length	280 mm	280 mm	125 mm	125 mm
Height	11 mm	11 mm	55 mm	55 mm
Weight	346 g	340 g	270 g	275 g
Drive	-	-	1/2"□	1/2"□

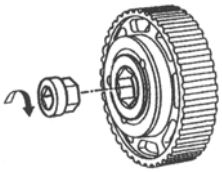
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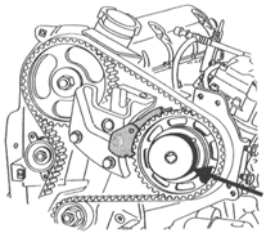
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KL-1280-21



Opel, Renault, Mitsubishi, Volvo





KL-1280-21 Injection pump adjustment tool

Suitable for Renault, Mitsubishi, Opel/Vauxhall and Volvo 1.9 direct-injection diesel engines (F8Q and F9Q) with adjustable injection pump wheel. e.g. Renault Megane/Scenic, Kangoo; Mitsubishi Carisma; Opel Arena and Volvo S40/V40.

The injection pump to the camshaft (start of delivery) can be adjusted with the injection nozzle adjustment tool in conjunction with the **KL-0129-1 A** set of tools and the required locking tools.

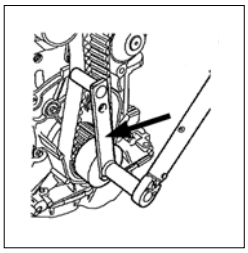
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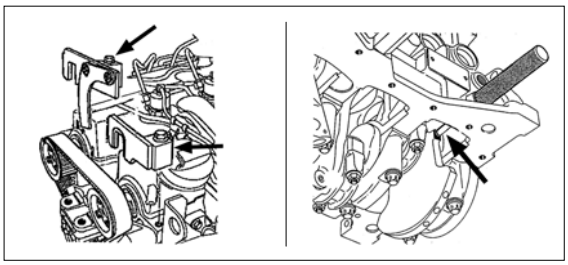
Part No.	Description	Qty.
KL-1280-21	**Injection Pump adjusting tool**	**1**
consists of:		
KL-1280-212	Special socket wrench insert 27 mm hex for the hub fixing screw;	1
KL-1280-211	Adjusting wrench with 3 pins (for turning and adjusting the hub);	1
KL-1280-213	Adaptor for Bosch injection pumps (M10x1 to M8x1)	1

KL-1280-24 K



Opel, Renault, Nissan





KL-1280-24 K Locking Tool Set
Renault 1.5 / 1.9 / 2.2 / 2.5 dCi

Applicable for Renault, Opel and Nissan 1,5; 1,9; 2,2 and 2,5 L direct injection diesel engines (K9K, F9Q, G9T and G9U) e.g. Renault Clio, Megane, Scenic, Laguna, Espace, Kangoo, Trafic and Master. Nissan Micra, Kubistar, Primastar, Interstar. Opel Vivaro and Movano.

To prevent the engine shafts (camshaft, crankshaft) from turning or to keep them in a specific position and to adjust the timing belt tensioner when changing a timing belt or during other engine repairs.

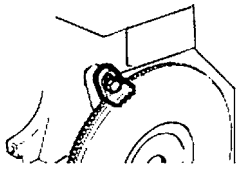
Specification:

Part No.	Description	Qty.
KL-1280-24 K	**Locking Tool Set Renault 1.5/1.9/2.2/2.5 dCi**	**1**
consists of:		
KL-1280-234	Locking pin for crankshaft Ø 7,9	1
KL-1280-233	Locking pin Ø 7,9	1
KL-1280-240	Timing belt tensioner tool	1
KL-1280-241	Hex. screw M6 x 60	1
KL-1280-242	Locking tool for camshafts	1
KL-1280-243	Locking pin for crankshafts	1
KL-1280-2490	Plastic case	1

KL-0182-19



Universal



KL-0182-19 Flywheel Locking Tool

Application for Renault 2,2 L Diesel engines (G8T) e.g. Renault Laguna, Safrane and Espace.

To lock the flywheel when the gearbox is dismounted.

KL-0182-1



KL-0182-1 Flywheel Locking Tool

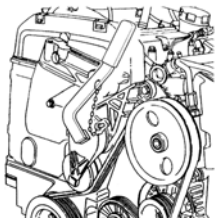
To lock the flywheel when the gearbox is dismounted. **Universal** application.

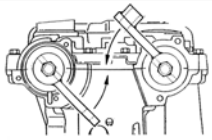
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KL-1280-22



Renault





KL-1280-22 Locking Tool Set

Applicable for Renault TwinCam petrol engines 2,0 16V (N7Q) and 2,5 20V (N7U) e.g. Renault Laguna and Safrane.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

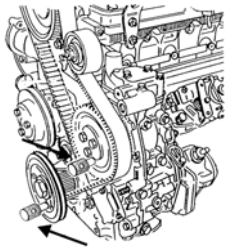
consists of:

Part-No.	Description	Qty.
KL-1280-224	Reaction Wrench with locking pin (V-belt tensioner pulley)	1
KL-1280-223	Locking pin (hydr. Timing belt tensioner)	1
KL-1280-221	Fixing Gauge for Camshaft	1
KL-1280-222	Locking Tool for Crankshaft	1

KL-1280-20 K



Renault, Opel, Volvo



KL-1280-20 K Locking Tool Set Renault

Applicable for Renault petrol engine 1,2 (D7F) e.g. Clio, Twingo; 1,2 / 1,4 / 1,6 (E5 - E7F/E7J/K7M) e.g. Clio, Megane, Scenic, Kangoo; 1,7 / 1,8 / 2,0 (F1N - F3N/F3P/F2R - F3R) e.g. Clio, Megane, Scenic; 1,8 / 2,0 16V (F7P/F7R) e.g. Clio Williams, Megane, Spider, R19; 2,0 / 2,2 (J5R - J7R, J5T) e.g. Safrane, Espace, Master, Trafic; and Volvo petrol engines (B16/B18/B20) e.g. 440, 460, 480.

Applicable for diesel engine 1,9 / 2,5 / 2,8 (F8M/F8Q/G8T / J8S/ F9Q/S8U/S9U/S9W) e.g. Renault Clio, Laguna, Megane, Kangoo, Espace, Master, Trafic; Opel Arena, Movano; Volvo S40, V40 etc.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

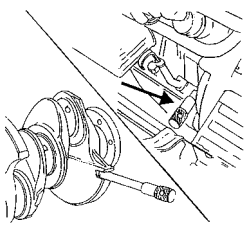
consists of:

Part-No.	Description	Qty.
KL-1280-201	Fixing Gauge for Camshaft	1
KL-1280-233	Locking Tool for Crankshaft Ø 7,9	1
KL-1280-202	Locking Tool for Crankshaft Ø 6,9	1
KL-1280-203	Locking pin for injection pump Ø 4,9	1
KL-1280-204	Locking Tool for Crankshaft Ø 4,9 / Ø 3,9	1
KL-1280-206	Reaction Wrench	1
KL-1280-205	Hex bolt M6 x 45	1
KL-1280-2090	Plastic case	1

KL-1280-23 K



Renault



KL-1280-23 K Locking Tool Set

Applicable for Renault TwinCam petrol engine 1,4 / 1,6 16V (K4J/K4M [98-]) and 1,8 / 2,0 16V (F4P/F4R [98-]) e.g. Renault Clio, Clio Sport, Megane/Scenic, Laguna and Espace.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

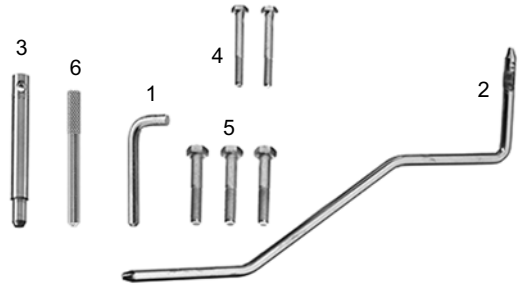
consists of:

Part-No.	Description	Qty.
KL-1280-231	Fixing Gauge for Camshaft	1
KL-1280-234	Locking Tool for Crankshaft [1,4/1,6]	1
KL-1280-233	Locking Tool for Crankshaft Ø 7,9 [1,8/2,0]	1
KL-1280-2390	Plastic case	1

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KL-1280-100 A

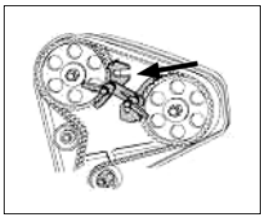
Renault

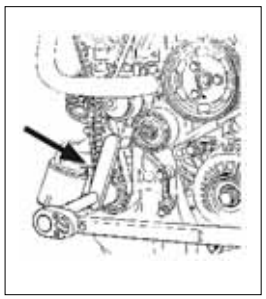


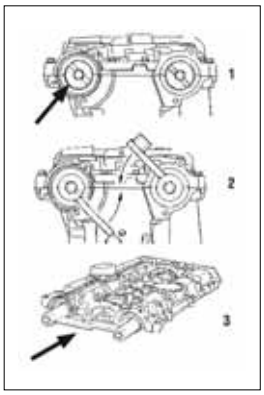
KL-1380-101 K

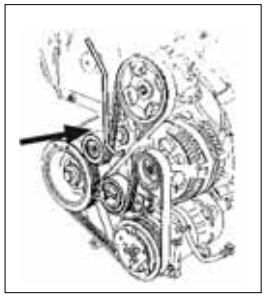
Citroën, Peugeot, Renault

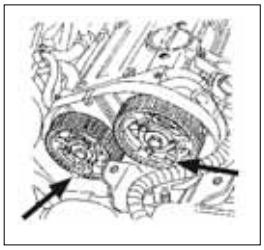












KL-1280-100 A Locking Tool Set Renault

To lock the engine shafts e.g. during replacement of timing belts or during engine repairs.

consists of:

Pos.	Part No.	Description	Qty.
1	KL-0680-11	Locking Pin Ø8,3	1
2	KL-1480-15	Locking pin angled Ø7,8	1
3	KL-1280-10	Locking pin Ø8 / Ø12	1
4	KL-1280-11	Hex. screw M5 × 50	2
5	KL-1280-12	Hex. screw M7 × 50	3
6	KL-1280-13	Locking pin Ø7	1

KL-1380-101 K Locking Tool Set
Citroën, Peugeot, Renault

Universally suitable for the following Citroën, Peugeot, Renault petrol and diesel engines. Installed also on Fiat, FSO,LDV, Nissan, Rover & Tata etc. vehicles.

Renault Diesel engines: 1.6D, 1.9D/TD (F8M, F8Q, F9Q); 2.1TD (J8S); 2.2D/TD (G8T); 2.5D/TD, 2.8D (S8U, S9U, S9W).

Renault gas engines: 1.2 (D7F); 1.4 (E5F, E6J, E7F & E7J); 1.6 (K7M); 1.7, 1.8 (F1N, F2N, F3N, F2R, F3P); 2.0 (F3R); 2.0, 2.2 (J5T, J6R, J7R, J7T); und 1.8, 2.0 16V (F7P, F7R), 2.0, 2.5 16V (N7Q, N7U).

Citroën / Peugeot Diesel engines: 1.4D (TUD3); 1.5D (TUD5); 1.7D/TD, 1.8D/TD, 1.9D/TD (XUD7, XUD9); 2.5D/TD/TDi (DKATE, DJ5, DJ5T, DJ5TED); 2.1D/TD, 2.2D (XUD11).

Citroën / Peugeot gas engines:1.0, 1.1, 1.4, 1.6 (TU9, TU1, TU3, TU5JP) ; 1.6, 1.8, 1.9, 2.0 (XU5, XU7, XU9, XU10J2) und 1.6 16V (TU5J4) ; 1.8 16V (XU7JP4) ; 2.0 16V (XU9J4, XU10J4).

To prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

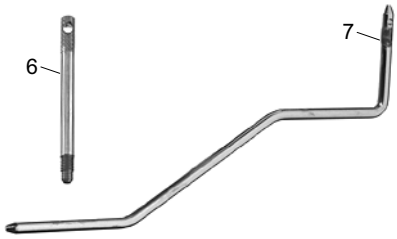
consists of:

Part No.	Description	Qty.
KL-1380-1011	Timing belt tensioner tool	1
KL-1280-201	Locking tool for camshafts	1
KL-1280-221	Locking tool for camshafts	1
KL-1280-222	Locking pin for crankshaft	1
KL-1380-2210	Locking pin for injection pump Ø 9,4	1
KL-1682-203	Locking pin for injection pump 1.9 TD	1
KL-1380-2212	Locking pin for balancer shaft Ø 5,9	1
KL-1380-2213	Locking pin for injection pump Ø 4,9	1
KL-1380-2214	Locking pin for camshaft M8	1
KL-1380-2215	Locking pin angled for Flywheel Ø 7,7	1
KL-1480-15	Locking pin angled Ø7,8	1
KL-1380-2216	Locking pin angled for flywheel Ø 7,8	1
KL-1380-2225	Hex. screw M8 x 40 (3 St.)	1
KL-1380-2217	Locking pin for cam-/-crankshaft (P1) Ø 9,9	1
KL-1380-2218	Locking pins for camshaft (P2) Ø 8,3 / 6,4	1
KL-1380-2219	Locking pin for camshaft (P3) Ø 7,9	1
KL-1380-2220	Locking pin for cam-/-crankshaft (P4) Ø 7,9	1
KL-1380-2221	Locking pin for camshaft (P5) Ø 5,9	1
KL-1380-2222	Locking pin for cam-/-crankshaft (P6) Ø 9,9	1
KL-1380-2223	Locking pin for crankshaft (P7) Ø 9,9 / 7,9	1
KL-1380-2224	Locking pin angled for flywheel Ø 5,8	1
KL-1280-233	Locking pin Ø 7,9	1
KL-1280-202	Locking pin for crankshaft Ø6,9	1
KL-1280-203	Locking pin for injection pump Ø4,9	1
KL-1280-204	Locking pin for crankshaft Ø4,9 / 3,9	1
KL-1380-2226	Locking pin for tension pulley Ø 1,5	1
KL-1280-223	Locking pin for hydr. tensioner Ø 1,9	1
KL-1280-205	Hex. screw M6 x 45	1
KL-1380-2227	Locking pin angled for poly V-belt Ø 6,7	1
KL-1380-2228	Locking pin for tension pulley Ø 3	1
KL-1280-206	Reaction Wrench (2 Pins)	1
KL-1380-2229	Reaction Wrench 7 mm ☐	1
KL-1380-2230	Reaction Wrench 8 mm ☐	1
KL-1280-211	Adjusting Tool (3 Pins)	1
KL-1280-212	Special socket insert 27 mm	1
KL-1280-213	Adaptor for Bosch pumps M10x1 on M8x1	1
KL-1380-1012	Locking pin for injection pump Ø 3,5	1
KL-1380-1090	Plastic case	1

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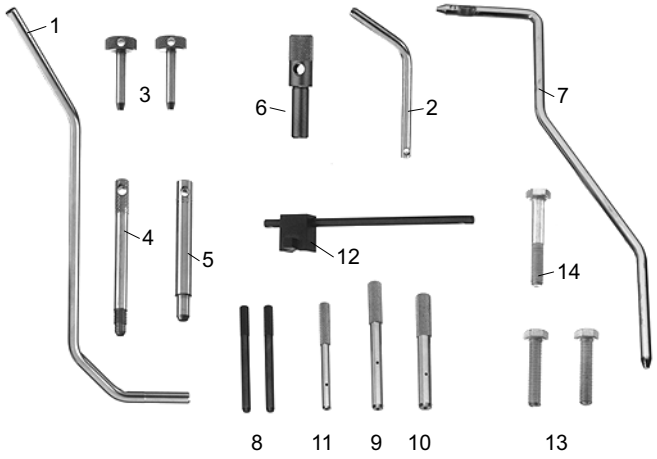
KL-1380-100

Citroën



KL-1480-100

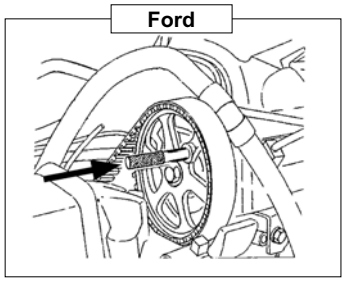
Peugeot



KL-0680-220



Ford



KL-1382-1 / KL-1382-2

Peugeot
Toyota



KL-1380-100 Locking Pin Set Citroën

To lock the engine shafts e.g. during replacement of Timing Belts or during engine repairs.

consists of:

Pos.	Part No.	Description	Qty.
6	KL-1480-13	Locking pin M8 / Ø6,7	1
7	KL-1480-15	Locking pin angled Ø7,8	1

KL-1480-100 Locking Pin Set Peugeot

To lock the engine shafts e.g. during replacement of Timing Belts or during engine repairs.

consists of:

Pos.	Part No.	Description	Qty.
1	KL-1480-10	Locking pin angled Ø6.8	1
2	KL-1480-11	Locking pin angled Ø6	1
3	KL-1480-12	Locking pin Ø6 short	2
4	KL-1480-13	Locking pin M8 / Ø6.7	1
5	KL-1480-14	Locking pin Ø10 / Ø8	1
6	KL-0580-11	Locking pin Ø9.9	1
7	KL-1480-15	Locking pin angled Ø7.8	1
8	KL-1480-16	Locking pin Ø6 long	2
9	KL-1380-10	Locking pin A Ø8	1
10	KL-1380-11	Locking pin B Ø9.5	1
11	KL-1380-12	Locking pin C Ø6	1
12	KL-1382-1	Reaction Wrench for Timing Belts 7mm ☐	1
13	KL-1480-17	Hex bolt M8 × 30	2
14	KL-1480-18	Hex bolt M8 × 40	1

KL-0680-220 Locking Pin Set

Suitable e.g. for:
Citroën C3 (from '02-'04),
Peugeot 206, 307 (01-04) 1.4 & 1.6 HDi [incl. 16v.] and
Ford Fiesta, Fusion, Focus C-Max 1.4 / 1.6 TDCi

[Engine code:DV4TD (8HW/8HX), DV4TED4 (8HV/8HY)
DV6TED4, F6JA]

To prevent the engine shafts (e.g. camshafts, injection pump shaft, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part No.	Description	Qty.
KL-0680-2201	Locking pin Ø 11,6	1
KL-0680-2202	Locking pin Ø 5	1
KL-0680-2203	Locking pin Ø 8	1

KL-1382-1 Reaction Wrench

For tensioning timing belts on **Peugeot and Toyota** engines.

☐: ..... 7 mm
Length: ..... 157 mm

KL-1382-2 Reaction Wrench

As KL-1382-1 but for **Peugeot** 206 Diesel DW8 etc..

☐: ..... 8 mm
Length: ..... 157 mm

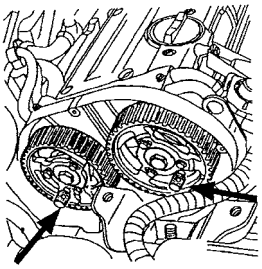
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KL-1380-24 K



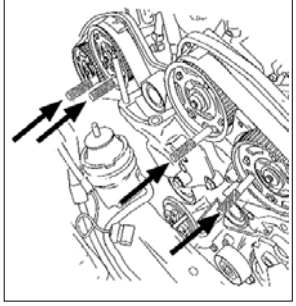
Citroën, Peugeot



KL-1380-25 K



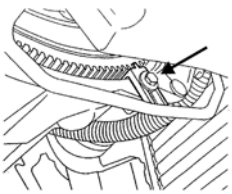
Citroën, Peugeot, Renault



KL-0182-17



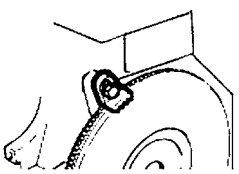
Citroën, Peugeot



KL-0182-18



Universal



KL-0182-1



KL-1380-24 K Locking Tool Set

Applicable for Citroën and Peugeot TwinCam 16 V petrol engine e.g. 1,8 16V and 2,0 16V engine code "EW" (inclusive HPi engines) e.g. Citroën C5 and Peugeot 206, 306 and 406.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1380-241	Locking Tool for Camshaft Ø 9,9 / Ø 5,9 [short]	1
KL-1380-242	Locking Tool for Camshaft Ø 9,9 / Ø 5,9 [long]	1
KL-1380-243	Locking Tool for Camshaft Ø 9,9 / Ø 5,9 [with Flats]	1
KL-1380-244	Locking Tool for Crankshaft Ø 7,9	1
KL-1380-245	Locking pin for Flywheel Ø 28,5 / Ø 8	1
KL-1380-246	Fixing pin for tensioner pulley Ø 7,9	1
KL-1380-237	Timing belt fixing clip	1
KL-1380-2490	Plastic case	1

KL-1380-25 K Locking Tool Set
Peugeot, Citroën V6 3.0l

Applicable for Citroën (XFZ), Peugeot (ES9J4) and Renault (L7X) 3,0 V6 petrol engine e.g. Citroën Xantia, XM; Peugeot 406, 605 and Renault Laguna, Safrane and Espace.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part-No.	Description	Qty.
KL-1380-25 K	**Timing Belt Locking Tool Set Peugeot, Citroën V6 3.0l**	**1**
consists of:		
KL-1380-251	Locking Tool for camshaft / crankshaft Ø 7,9 mm (5 pcs.)	1
KL-1380-252	Camshaft Timing Test Pin Ø 7,9 mm / 5,9 mm	1
KL-1380-253	Camshaft Holding Tool	1
KL-1380-254	Timing belt fixing clip	1
KL-1380-255	Hex bolt M8 x 40	1
KL-1380-256	Hex bolt M8 x 80	1
KL-1380-257	Tensioning tool	1
KL-1380-2590	Plastic case	1

KL-0182-17 Flywheel Locking Pin

Applicable for Citroën, Peugeot (TUD5) Diesel engine e.g. Citroën AX, Saxo, Xsara; Peugeot 106; Nissan Micra and Rover 115.

To lock the flywheel.

KL-0182-18 Flywheel Locking Pin

Applicable for Citroën, Peugeot diesel and petrol engines.

To lock the flywheel.

KL-0182-1 Flywheel Locking Tool

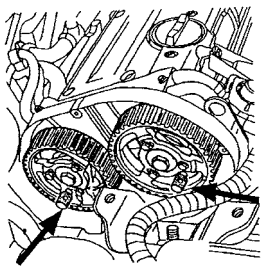
To lock the flywheel when the gearbox is dismounted. **Universal** application.

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KL-1380-22 K



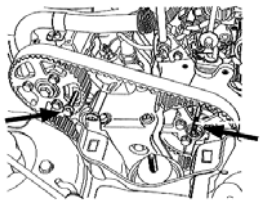
Citroën, Peugeot



KL-1380-23 K

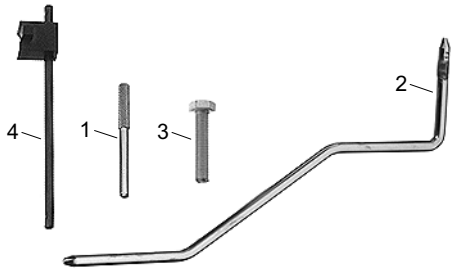


Citroën, Peugeot



KL-1980-100

Toyota



KL-1380-22 K Locking Tool Set

Applicable for Citroën and Peugeot diesel (TUD/XUD) and petrol (TU/XU) engines. Installed e.g. by Citroën, Fiat, FSO, LDV, Nissan, Peugeot, Rover and TATA etc.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part No.	Description	Qty.
KL-1380-22 K	**Locking Tool Set**	**1**
consists of:		
KL-1380-2210	Locking pin for injection pump (C1) Ø 9,4 mm	1
KL-1380-2211	Locking pin for injection pump (C2) Ø 5,9 mm	1
KL-1380-2212	Locking pin for balancer shaft (C3) Ø 5,9 mm	2
KL-1380-2213	Locking pin for injection pump (C4) Ø 4,9 mm	1
KL-1380-2214	Locking Tool for camshaft (C5) M8	1
KL-1380-2215	Locking pin for fly wheel (angled) Ø 7,7 mm	1
KL-1380-2216	Locking pin for fly wheel (angled) Ø 7,8 mm	1
KL-1380-2217	Locking Tool for camshaft / Crankshaft (P1) Ø 9,9 mm	1
KL-1380-2218	Locking Tool for camshaft (P2) Ø 8,3 mm / 6,4 mm	2
KL-1380-2219	Locking Tool for camshaft (P3) Ø 7,9 mm	2
KL-1380-2220	Locking Tool for camshaft / Crankshaft (P4) Ø 7,9 mm	1
KL-1380-2221	Locking Tool for camshaft (P5) Ø 5,9 mm	2
KL-1380-2222	Locking Tool for camshaft / Crankshaft (P6) Ø 9,9 mm	1
KL-1380-2223	Locking tool for crankshaft (P7) Ø 9,9 mm / 7,9 mm	1
KL-1380-2224	Locking pin for fly wheel (angled) Ø 5,8 mm	1
KL-1380-2225	Hex bolt M8 x 40 (3 pcs.)	1
KL-1380-2226	Retaining pin for tensioner pulley Ø 1,5 mm	1
KL-1380-2227	Tensioning Spindle for V-belt angled Ø 6,7 mm	1
KL-1380-2228	Retaining pin for tensioner pulley Ø 3,0 mm	1
KL-1380-2229	Reaction Wrench 7 mm ☐	1
KL-1380-2230	Reaction Wrench 8 mm ☐	1
KL-1380-2290	Plastic case	1

KL-1380-23 K Locking Tool Update Kit

Applicable for Citroën and Peugeot 1.9 D, 2.0 D, 2.2 D diesel (DW8, DW10 and DW12 [Hdi]) engine. Installed e.g. by Citroën, Fiat, Peugeot and Toyota.

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing belt or during other engine repairs.

consists of:

Part No.	Description	Qty.
KL-1380-23 K	**Locking Tool Update Kit**	**1**
consists of:		
KL-1380-2211	Locking pin for injection pump (C2) Ø 5,9 mm	1
KL-1380-2215	Locking pin for fly wheel (angled) Ø 7,7 mm	1
KL-1380-2216	Locking pin for fly wheel (angled) Ø 7,8 mm	1
KL-1380-2220	Locking Tool for camshaft (P4) Ø 7,9 mm	1
KL-1380-231	Locking Tool for flywheel	1
KL-1380-232	Hex bolt M8 x 80	1
KL-1380-233	Locking pin for flywheel (angled) Ø 7,7 mm	1
KL-1380-234	Puller for Crankshaft pulley	1
KL-1380-235	Reaction Wrench 8 mm ☐	1
KL-1380-236	Reaction Wrench 7 mm ☐	1
KL-1380-237	Timing belt fixing clip	1
KL-1380-2390	Plastic case	1

KL-1980-100 Locking Tool Set Toyota

Applicable for Toyota 1,9 D etc. To lock the engine shafts e.g. during replacement of timing belts or during engine repairs.

consists of:

Pos.	Part No.	Description	Qty.
	KL-1980-100	**Locking Tool Set Toyota**	**1**
	consists of:		
1	KL-1980-11	Locking pin Ø5,5	1
2	KL-1980-12	Locking pin angled Ø7,6	1
3	KL-1980-13	Hex bolt M8 x 50	1
4	KL-1382-1	Reaction Wrench for Timing Belts 7mm ☐	1

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KL-0580-102

BMW



KL-0580-102 Locking Tool Set BMW

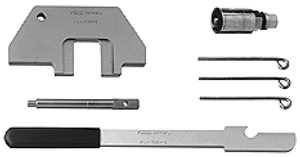
Guarantees the correct positioning of the camshaft when changing the timing belt or the timing chain.

Application: BMW-engines. Weight:.....6,4 kg

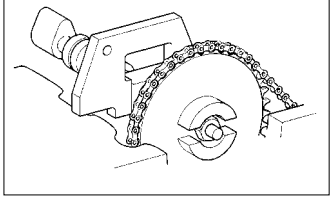
consists of:

Part-No.	Description	Qty.
KL-0580-102	**Locking Tool Set BMW**	**1**
consists of:		
KL-0580-101	Locking ToolSet BMW (incl. Case)	1
KL-0580-3	Locking Tool (M21 in E30)	1
KL-0580-4	Locking Tool (M42 and M50)	1
KL-0580-5	Locking Tool (M40 and M43)	1
KL-0580-11	Locking pin Ø 9,9 (Pump)	1

KL-0580-101



BMW



With Plastic Storage case KL-0580-1090.

KL-0580-101 Locking Tool Set BMW

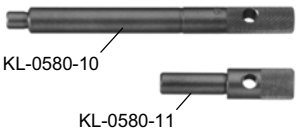
Guarantees the correct positioning of the camshaft when changing the timing chain.

Application for BMW 6 cylinder diesel engine 2.5 (M51) in BMW 325 td/tds (E36), BMW 525 td/tds (E34/39) and Opel Omega 2.5 TD and for the 4 cylinder diesel engine (M41) in BMW 318 tds (E36) as well. Weight:.....3,0 kg

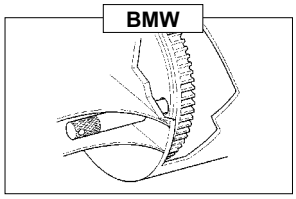
consists of:

Part-No.	Description	Qty.
KL-0580-101	**Locking Tool Set BMW**	**1**
consists of:		
KL-0580-2	Puller for Injection Pump	1
KL-0580-6	Locking Tool BMW M51	1
KL-0580-10	Locking Pin Ø11,8 / Ø8 (Flywheel)	1
KL-0580-15	Reaction Wrench for timing chain BMW	1
KL-0580-1201	Fixing Bolt Ø 4 (Chain Wrench)	3
KL-0580-1090	Plastic Storage Case	1

KL-0580-100



BMW



KL-0580-100 Locking Pin Set BMW

Suitable for BMW 4 cylinder diesel engine (M41), 6 cylinder diesel engine 2.5 (M51) also for Opel/Vauxhall Omega 2.5 TD.

To lock the fly-wheel and injection-pump pulley when changing timing chain or carrying out engine repairs.

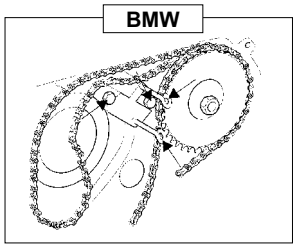
consists of:

Part-No.	Description	Qty.
KL-0580-100	**Locking Tool Set BMW**	**1**
consists of:		
KL-0580-10	Locking Pin Ø11,8 / Ø8	1
KL-0580-11	Locking Pin Ø9,9	1

KL-0580-1201



BMW



KL-0580-10 Locking Pin Ø11,8 / Ø8 mm

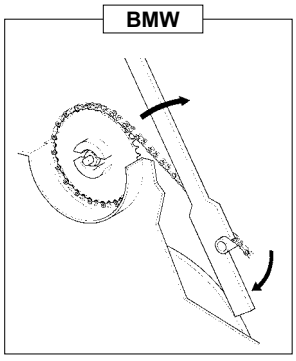
Applicable for BMW engine M21, M40, M41, M42, M43, M43TU, M44, M47, M47TU, M50, M51, M52, M52TU, M54, M60, M62, M70, M73, S50B30, S50B32, S54, S62.

To lock the fly-wheel when changing timing chain or carrying out engine repairs.

KL-0580-15



BMW



KL-0580-1201 Fixing Bolts Ø4 mm

Application: BMW 4 cylinder diesel engine (M41), 6 cylinder diesel engine 2.5 (M51) also for Opel/Vauxhall Omega 2.5 TD.

To lock the timing chain tensioner in the relaxed position in conjunction with Reaction wrench for timing chain BMW Tool KL-0580-15.

KL-0580-15 Reaction wrench

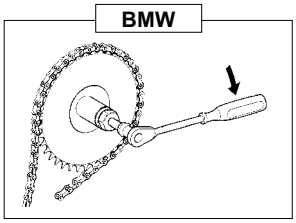
Application: BMW 4 cylinder-Diesel- Engine (M41), 6 cylinder diesel engine 2.5 (M51) also for Opel/Vauxhall Omega 2.5 TD.

To depress the automatic timing chain tensioner while changing timing chains or during engine repairs.

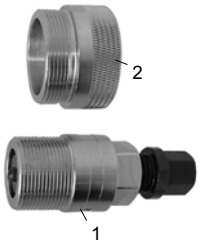
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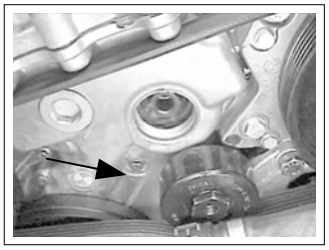
KL-0580-2





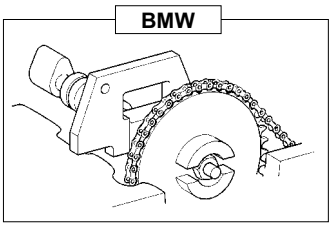
KL-0580-21





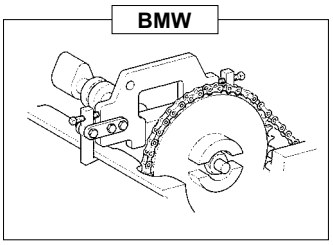
KL-0580-6





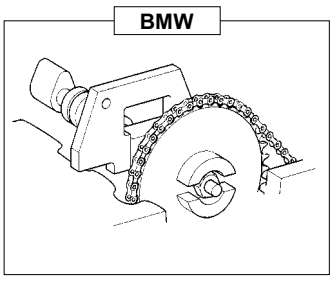
KL-0580-3





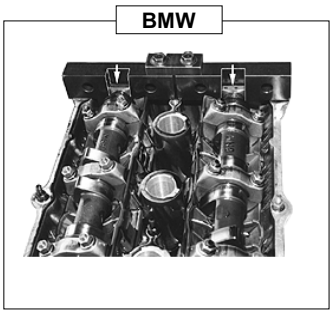
KL-0580-5





KL-0580-4





KL-0580-2 Puller for Injection Pump

Application: BMW 4 cylinder diesel engine (M41), 6 cylinder diesel engine-2,5 (M51) also for Opel/Vauxhall Omega 2,5 TD.

To loosen the injection pump pulley from the shaft when dismounting the Injection Pump.

KL-0580-21 Injection Pump Extractor

Applicable for BMW M47, M47TU, M57, M57TU engines.

To lock the injection pump sprocket in position and press out the injection pump shaft.

This tool is required when removing the injection pump.

Note: only item 1 is used on M47 engines.
Items 1 and 2 are both used on M47TU, M57 and M57TU engines.

KL-0580-6 Locking Tool

Application: BMW 4 cylinder diesel engine (M41), 6 cylinder diesel engine-2,5 (M51) also for Opel/Vauxhall Omega 2,5 TD.

Guarantees the correct positioning of the camshaft and pump shaft to the crankshaft when changing the timing chain or removing or installing the injection pump.
(Correct timing adjustment).

Weight:..... 780 g

KL-0580-3 Locking Tool

Application: BMW 6 cylinder diesel engine 2.4 (M21) in E30 (324d & 324td), E28 (524d & 524td), E34 (524td).

Guarantees the correct positioning of the camshaft and pump shaft to the crankshaft when changing the timing chain or removing or installing the injection pump.
(Correct timing adjustment).

Weight:..... 915 g

KL-0580-5 Locking Tool

As **KL-0580-6** but applicable for:
BMW 4 cylinder engine-1,8 and 1,6 [M40 in E30, E36 (316, 318) and E34 (516, 518); M43 in E36 (316, 318) and E34 (516, 518)]. Also for the 12 cylinder engine [M70 in E32 (750) and E31 (850); M73 in E38 (750) and E31 (850)].

Weight:..... 665 g

KL-0580-4 Locking Tool

Applicable for: BMW 4 cylinder 4 Valve engine M42, M44 also for the 6 cylinder 4 Valve engine M50, M52, M52TU and M54 in the E30 (318), E36 (318, 318is, 320, 325 and 328), E46 (320, 325, 328 and 330), E34 (520 and 525 and 530), E39 (520, 525, and 528) and E38 (720, 725 and 728).

This tool is absolutely necessary for locking both of the camshafts in TDC-Position while repairing the timing chain on the engine. The camshaft is pulled across the squared camshaft and lies on the cylinder head edge.

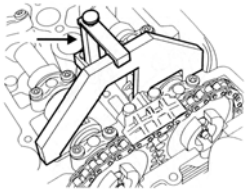
Weight:..... 1,8 kg

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KL-0580-7 K



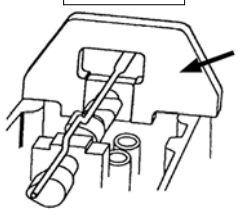
BMW



KL-0580-80 K



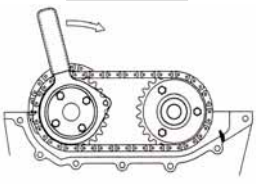
BMW



KL-0580-41



BMW



KL-0582-1

BMW



KL-0582-2

BMW



KL-0123-1

BMW, Ford



KL-0580-7 K Locking Tool Set

Applicable for BMW 4 cylinder diesel engine (M47) and 6 cylinder diesel engine (M57) e.g. in Series E46 (318d, 320d, 330d) and E39 (525d, 530d).

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing chain or during other engine repairs.

Contents:

Part No.	Description	Qty.
KL-0580-7 K	**Locking Tool Set**	**1**
consists of:		
KL-0580-701	Locking Tool for camshaft (M47 / M57)	1
KL-0580-702	Holder for camshaft locking tool	1
KL-0580-703	Locking Tool for crankshaft	1
KL-0580-704	Retaining Pin for tensioner	2
KL-0580-7090	Plastic case	1

KL-0580-80 K Locking Tool Set

Applicable for BMW 12 cylinder petrol engine (M70, M73) e.g. in Series E32 (750i), E38 (750i) and E31 (850i).

To prevent the engine shafts (e.g. camshafts, crankshaft) from turning or to keep them in a specific position when changing a timing chain or during other engine repairs.

Contents:

Part No.	Description	Qty.
KL-0580-80 K	**Locking Tool Set BMW M70 / M73**	**1**
consists of:		
KL-0580-801	Locking tool for camshaft BMW M70 / M73 (2 pcs.)	1
KL-0580-703	Locking pin for crankshaft	1
KL-0580-8090	Plastic case	1

KL-0580-41 Adjusting Wrench

Applicable for BMW 4- and 6 cylinder TwinCam engines M42, M44, M50 and M52 with VANOS Unit.

Required for removing and installing the VANOS adjusting unit with disc spring.

KL-0582-1 Locking Tool for Visco-Fan

To provide a reaction point to dismantle the visco-coupled cooling-fan.

Hole distance: ..... 38 mm
Weight: ..... 500 g

KL-0582-2 Locking Tool for Visco-Fan

As **KL-0582-1** but with

Hole distance: ..... 44,5 mm
Weight: ..... 400 g

KL-0123-1 Reaction Wrench 32 mm

For reaction of the visco-coupling drive when removing or installing the visco-coupling on **BMW and Ford** vehicles.

Socket size: ..... 32 mm
Length: ..... 280 mm

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KL-0312



Mercedes, BMW



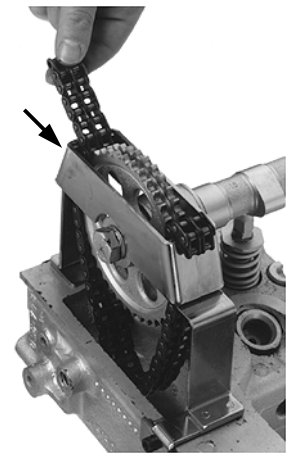
KL-0312-2



KL-0344



Mercedes



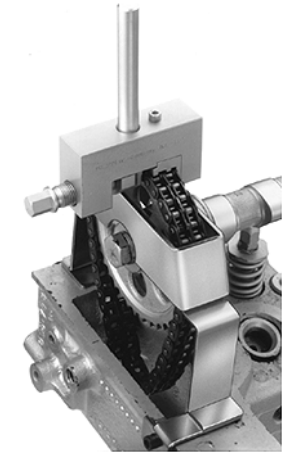
KL-0344-2



KL-0348



Mercedes



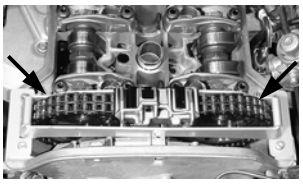
KL-0343



KL-0342



Mercedes



KL-0342-2



KL-0312 Extractor for Timing Chain Tensioner

For Timing Chain Tensioner on **Mercedes and BMW** cars, including the following Pressure Bolts and Adaptor Disc:

Spare Parts:

Part No.	Description
KL-0312	**Extractor for Timing Chain Tensioner**
consists of:	
KL-0312-0010	Pulling Bolt M6 × 30
KL-0312-0011	Pulling Bolt M8 × 30
KL-0312-0012	Pulling Bolt M8 × 60
KL-0312-0013	Adaptor Disc

KL-0312-2 Extractor for Timing Chain Tensioner (short version)

For Timing Chain Tensioner on **Mercedes** cars, as **KL-0312** but short version of Base Tool.

Mounting Devices for Timing Chains of Mercedes Engines

The use of these mounting devices allow a single mechanic to replace timing chains quickly without assistance.

Advantages:

- High time-savings and only one person operation.
- No risk of the timing chain falling or skipping a tooth.
- Additional time-savings on some vehicles when it is not necessary to remove the Radiator, Cooling Fan, etc.

KL-0344 Mounting Device for Timing Chains

For 4-, 5-, and 6-cylinder **Mercedes** diesel engines OM601, OM602 and OM603.

KL-0344-2 Mounting Device for Timing Chains

For 4-, 5-, and 6-cylinder **Mercedes** diesel engines OM604, OM605 and OM606.

KL-0348 Mounting Device for Timing Chains

For **Mercedes** petrol engine M103.

KL-0343 Mounting Device for Timing Chains

For 4- and 5-cylinder **Mercedes** diesel engines OM615, OM616 and OM617 without level regulation.

KL-0342 Mounting Device for Timing Chains

For 4-cylinder **Mercedes** petrol engine M102.

KL-0342-2 Mounting Device for Timing Chains

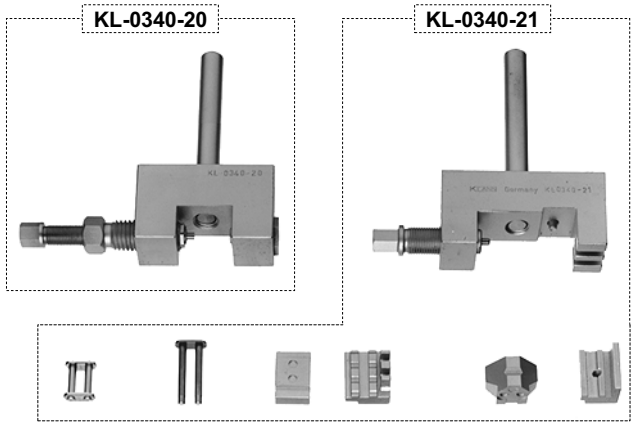
For 4-cylinder **Mercedes** petrol engine M111.

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KL-0340-2 K

Mercedes

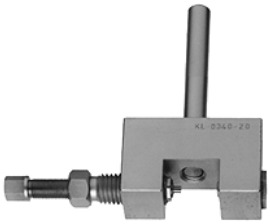




KL-0341-2



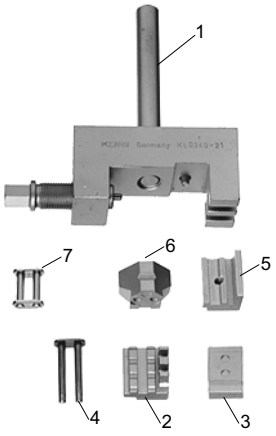
KL-0340-20



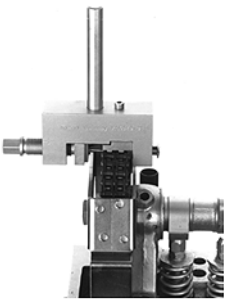
Opening of the timing chain



KL-0340-21



Mounting of the timing chain



KL-0340-2 K Riveting Tool Set

For Timing Chains on Mercedes petrol and diesel engines.

The Separating Tool **KL-0340-20** and the Riveting Tool **KL-0340-21** allow quick, easy and safe splitting and re-connection of the timing-chains - both Simplex and Duplex - as well as the double-roller to be found on new Mercedes diesels from 9/95 onwards. On such chains, the timing chain pin is peened.

For the new double-roller chains, the existing Chain Riveting Tool KL-0340 is no longer effective.

For riveting the Simplex Chains, the adaptor **KL-0341-2** is required, which is not supplied as part of the **KL-0340-2 K** kit.

Advantages:

- Clean splitting of the old timing chain
- Correct and safe assembly of the replacement timing-chain
- Exact riveting of the new timing chain

Attention:

For mounting new timing chains we recommend our mounting tools **KL-0342** to **KL-0348**. The use of these mounting tools allow a single mechanic to replace timing chains quickly and without assistance.

Part No.	Description
KL-0340-2K	**Riveting Tool Set**
consists of:	
KL-0340-20	Separating Tool for Timing Chains
KL-0340-203	Clipping Punch Set (2 Pieces Ø4 × 50)
KL-0340-21	Riveting Tool for Timing Chains
KL-0340-2020	Plastic Storage Case (empty)

KL-0341-2 Mounting Device

For **Mercedes** Simplex Timing Chains.

Part No.	Description
KL-0341-2	**Mounting Device for Timing Chain**
consists of:	
KL-0340-0012	Pressure Piece No. 2 with Magnet for Simple Timing Chain
KL-0340-0011	Guiding Piece No. 2 for Simple Timing Chain

KL-0340-20 Separating Tool

For Timing Chains on **Mercedes** petrol and diesel engines.

Part No.	Description
KL-0340-20	**Separating Tool**
consists of:	
KL-0340-201	Separating Base Tool
KL-0340-202	Pressing Spindle with Clipping Punch Ø4 × 50

Extra Parts for KL-0340-20:

KL-0340-203 Clipping Punch Set (2 Pieces Ø4 × 50)

KL-0340-21 Riveting Tool

For Timing Chains on **Mercedes** petrol and diesel engines.

Pos.	Part No.	Description
	KL-0340-21	**Riveting Tool for Timing Chains**
	consists of:	
1	KL-0340-211	Riveting Base Tool with Spindle
2	KL-0340-2121	Mounting Guide Bead No.3
3	KL-0340-2122	Mounting Thrust Piece No.3
4	KL-0340-2123	Mounting Guide Link
5	KL-0340-2131	Guide Bead No.1 for Duplex Timing Chains
6	KL-0340-2132	Pressure Piece Double Chains No. 1
7	KL-0340-214	Mounting Link Ø4,4 for Duplex Timing Chains

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KL-0368-3



Mercedes W124

KL-0368-3 Adjusting Guide

Sets basic adjustment of the micro-switch on injection pumps on **Mercedes Diesel W124** with engines OM605 or OM606.

KL-0343-5



Mercedes

KL-0343-5 Locking Screw

Injection pump locking screw, allows the injection pump to be removed without the loss of pump timing.

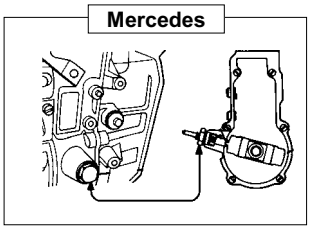
Application: Mercedes engines OM602, OM604, OM605 and OM604 with a Lucas Injection Pump.

Weight:..... 27 g

KL-0343-3



Mercedes



KL-0343-3 Locking Screw

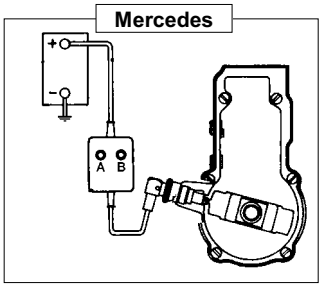
Injection pump locking screw, allows the injection pump to be removed without loss of pump timing.

Application: Mercedes engines OM601, OM602 and OM603.

KL-0343-4



Mercedes



KL-0343-4 Injection Timing Tool

For accurate setting of static timing on injection pumps fitted to **Mercedes engines OM601, OM602 and OM603**.

Position indication by LED's.

KL-0384-10

Mercedes

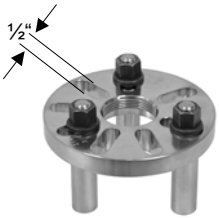


KL-0384-10 Locking Tool

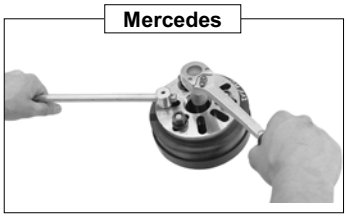
To block the camshafts on remounting of the cylinder head on **Mercedes engines M104 and M111** (petrol engines with four valve technology).

Ø 5,8 / 6,0 mm

KL-0366-80



Mercedes



KL-0366-80 Reaction Tool

Applicable for Mercedes engines e.g. M112.

For counter-holding the crankshaft belt pulley when screwing and unscrewing the central crankshaft bolt .

6

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3550-20

RAHSOL DREMOTEC

1/2" push-through square drive for bi-directional tightening.



1/2"

20-200 N·m

Code No.:	1379526
Part No.:	3550-20
Weight:	1250 g
Length:	485 mm
Head Ø	44 mm
Head height / length	22 mm
Range of work / measurement 1, Nm (min/max):	20-200
Range of work / measurement 2, lbf·ft (min/max):	15-150
Scale divisions:	10 N·m

8573-00



1/2"

40-200 N·m

Code No.:	7685530
Part No..:	8573-00
Weight:	1,4 kg
Length	553 mm
Range of work / measurement 1, Nm (min/max):	40-200
Range of work / measurement 2, lbf·ft (min/max):	30-150
Scale divisions:	5 N·m / 5 lbf·ft

Example for Torque Wrench:

4549-01

1/4"



1-5 N·m

4549-02

1/4"



2-25 N·m

4549-05

3/8"



5-50 N·m

Note: ***Further RAHSOL DREMOTEC Products and Torque Wrenches see GEDORE catalogue..***

3550-20 TORCOFLEX K Torque wrench

1/2" 20-200N·m

CODE 1379526

Use:

- Controlled screw tightening in the most widely used range 20 - 200 N·m
- For use in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with square drive and integrated ratchet-head function
- For controlled bi-directional tightening
- 1/2" push-through square drive with ball-locking mechanism as per DIN 3120 - A 12.5, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Lever-breaking mechanism with a castor guarantee tactile-impulse and audible actuation signals
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Robust, powder-coated steel tube construction with zinc-plated ratchet head
- Double scale N·m and lbf·ft underneath a window with a magnify-ing-glass effect
- N·m graduation of 10 N·m
- Black plastic handgrip with slip-resistant grained surface

Contents:

- Torque wrench type TORCOFLEX K
- Test certificate as per DIN EN ISO 6789
- Operating instructions
- Delivered in transparent plastic box with a practical suspension mounting

8573-00 DREMOMETER BC Torque Wrench

1/2" 40-200N·m

CODE 7685530

Use:

- Controlled screw tightening in the range 40 - 200 N·m
- Ideal for the automotive industry
- Utilisation in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with 1/2" single square drive for con-trolled clockwise tightening (type BC no. 8573)
- 1/2" square drive with ball-locking mechanism DIN 3120 - A 12.5, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 5 N·m and 5 lbf·ft
- If ordering with pre-set-value locking and safety device lease specify the N·m value - if fixed factory-pre-setting is desired (price on request)

Contents:

- Torque wrench of type DREMOMETER
- Test certificate as per DIN EN ISO 6789
- Operating instructions (14-language) and service-mini-CD
- The individual wrench is delivered in a robust black plastic box

Further RAHSOL DREMOTEC Products and Torque Wrenches see GEDORE catalogue

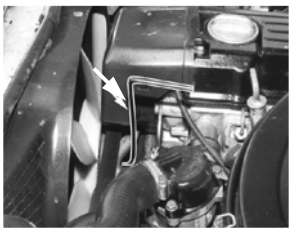
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KL-0367-1

Mercedes





KL-0366-1

Mercedes



KL-0366-2

Mercedes



Note: Torx®- Reaction Wrench see page 6.5-06.

KL-0366-5

Mercedes



KL-0366-7

Mercedes



KL-0366-6

Mercedes



KL-0384-1

Mercedes



KL-0367-1 Holding Tool

To allow removal of the visco-coupling on the cooling fan.

Application: On Mercedes engines e.g. M103.

KL-0366-1 Reaction Wrench Allen Key 10 mm

To allow adjustment of the compressor drive belt on **Mercedes engines M102, M103, OM601, OM602, OM603, OM605 and OM606**.

As KL-0366-2, but with Allen Key 10 mm

Length:.....450 mm

Accessory: KL-0366-20 Allen Key 8 mm

KL-0366-2 Reaction Wrench Allen Key 8 mm

To allow adjustment of the visco-coupling on the cooling fan and the pulley at the water pump on **Mercedes engines M102, M103, OM601, OM602, OM603, OM605 and OM606**.

As **KL-0366-1**, but with Allen Key 8 mm

Length:.....450 mm

Accessory: KL-0366-10 Allen Key 10 mm

KL-0366-5 Fan Wrench 36 mm

For undoing the retaining bolt on Mercedes radiator fans.

Application: **Mercedes engines M111, OM604, OM605 and OM606 (C- and E-class)**.

Length:.....350 mm

KL-0366-7 Reaction Wrench

With 3 holes

Required to remove the radiator fan hub, the reaction spanner is bolted to the front face of the hub. The poly-V belt is not in place and cannot be used to lock the hub.

Application: **Mercedes C- and E-Class engines M111 (4 cylinder 4 valve), OM604, OM605 and OM606.**

Length:.....410 mm

KL-0366-6 Single-ended open Wrench 65 mm

Special open-ended spanner to allow removal and replacement of the radiator fan hub.

Application: Mercedes engines M103 (6 cylinder), M104 (6 cylinder 4 valve), M119 (8 cylinder 4 valve), M120 (12 cylinder 4 valve).

Length:.....400 mm

KL-0384-1 Reaction Wrench

To relieve pressure on the timing belt by compressing the automatic tension roller.

Suitable for Mercedes Transporters series 208 D to 410 D with engines types OM601 and OM602 and also for Mercedes passenger cars with hydraulic pump for self-levelling suspension.

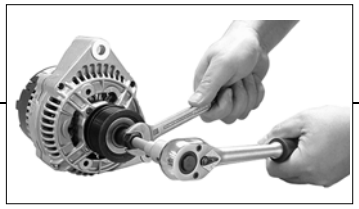
Due to extremely limited space, in particular on Transporter models it is very difficult to hold back the automatic tension-pulley, in order to change the Poly-V belts.
The **KL-0384-1** Tension Tool makes light work of this difficult job.
The Tension Tool is operated by a normal 3/8" Socket Wrench.

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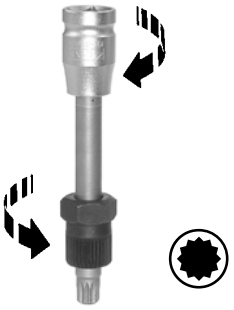
KL-0284-18



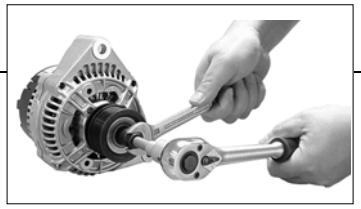
VW-Audi, BMW, Ford, Seat, Mercedes, etc.



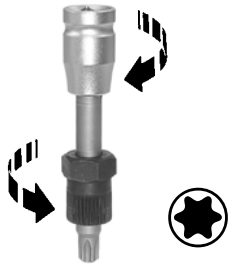
KL-0284-38



VW-Audi, BMW, Ford, Seat, Mercedes, etc.

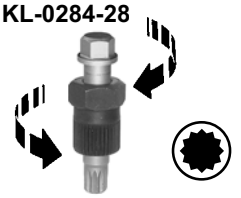


KL-0284-19

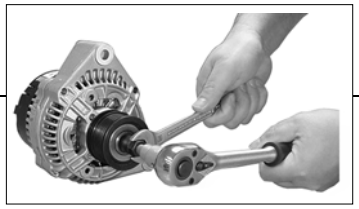


Mercedes A-Class

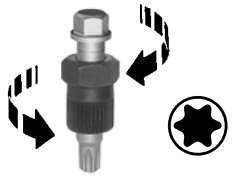
KL-0284-28



VW-Audi, BMW, Ford, Seat, Mercedes, etc.

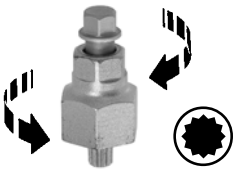


KL-0284-29

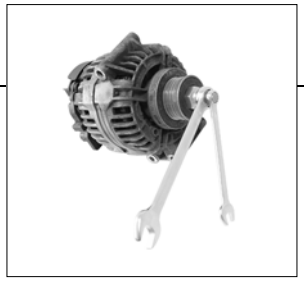


Mercedes A-Class

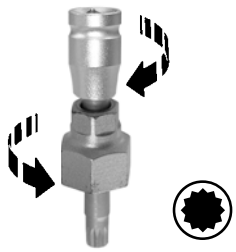
KL-0284-27



Renault



KL-0284-37



KL-0284-18 Alternator Combination Socket

Suitable for: Alternators with free-wheel drive pulley.
Application: VW-Audi, BMW, Ford, Skoda, Mercedes, Opel/Vauxhall, Porsche, Renault etc.

The two-part alternator socket allows easy removal and replacement of the Free-wheel pulley required when either the alternator or pulley must be replaced.
The tool allows the alternator to be locked by the 10 mm XZN multi-spline insert, which allows the central locking bolt of the pulley to be loosened or tightened.

Technical Data:

Socket Insert .... XZN - M10	Drive:..... 1/2" □
Reaction Nut with 33 teeth outer Ø 19,5 mm	Drive:..... hex 21 mm
Length:.....110 mm	Weight:.....156 g

KL-0284-38 Alternator Combination Socket

As KL-0284-18 but 140 mm long

Particularly suitable for belt pulleys that are hard to access.

KL-0284-19 Alternator Combination Socket

As **KL-0284-18** but with Socket Insert Torx® T50

Suitable e.g. for Mercedes A-Class, Renault 1,9 DTI.

KL-0284-28 Alternator Combination Socket

Suitable for: Bosch alternators with free-wheel drive pulley.
Application: VW-Audi, BMW, Ford, Skoda, Mercedes, Opel/Vauxhall, Porsche, Renault, etc.

The short two-part alternator socket allows easy removal and replacement of the Free-wheel pulley required when either the alternator or pulley must be replaced. *Without the need to remove the radiator.*
The tool allows the alternator to be locked by the 10 mm XZN multi-spline insert, which allows the central locking bolt of the pulley to be loosened or tightened.

Technical Data:

Socket Insert..... XZN - M10	Drive:..... hex 12 mm
Reaction Nut with 33 teeth outer-Ø 19,5 mm	Drive:..... hex 21 mm
Length:..... 64 mm	Weight:.....95 g

KL-0284-29 Alternator Combination Socket

As **KL-0284-28** but with Socket Insert Torx® T50

Suitable for Mercedes A Class, Renault 1,9 DTI.

KL-0284-27 Alternator Combination Socket

As **KL-0284-28** but with an 28 mm hexagonal cap nut (Drive hex 21 mm).

Applicable for e.g. Renault etc.

KL-0284-37 Alternator Combination Socket

Suitable for: Bosch alternators with free-wheel drive pulley.
Application: Renault etc.

The two-part alternator socket allows easy removal and replacement of the Free-wheel pulley required when either the alternator or pulley must be replaced.
The tool allows the alternator to be locked by the 10 mm XZN multi-spline insert, which allows the central locking bolt of the pulley to be loosened or tightened.

Technical Data:

Socket Insert..... XZN - M10	Drive:.....1/2" □
28 mm hexagonal cap nut	Drive:..... hex 21 mm
Length:.....110 mm	Weight:.....110 g

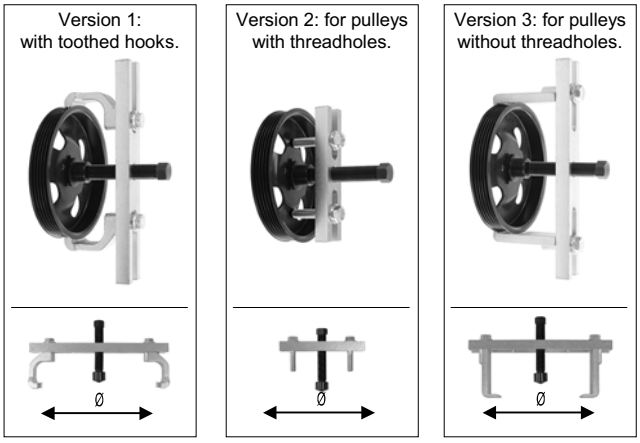
® = reg. trademark of Camcar-Textron Inc. USA

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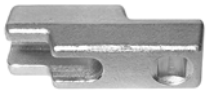
KL-0155-41 K

Universal





KL-0284-16



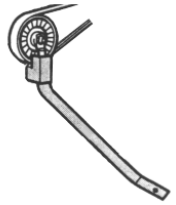
VW-Audi



KL-0284-12



VW-Audi, Seat



KL-0284-15



VW-Audi



KL-0155-41 K V-Belt Pulley Puller Set

The universal V-belt pulley puller set **KL-0155-41 K** allows, due to its different bridges, pressure pieces and hooks, the removal of V-belt pulleys of the most different types and pulling off methods (see Fig. Versions 1 - 3).

Technical data (versions combination):

Version 1: with toothed hooks (groove pulleys).
Short or long bridge with toothed hook.

Short bridge:..... 80 - 140 mm
Long bridge: ..... 135 - 235 mm

Version 2: for pulleys with threadholes.
Short or long bridge with screws.

Short bridge:..... 43 - 120 mm
Long bridge: ..... 95 - 210 mm

Version 3: for pulleys without threadholes.
Short or long bridge with standard hooks and/or extensions for rear locking.

Short bridge:..... 23 - 100 mm
Long bridge: ..... 85 - 195 mm

Weight: ..... 2,6 kg

Specification:
Bridge long, bridge short, 3x presure piece small, middle, big, 2x hook standard, 2x extension, 2x screw short, 2x screw long, 2x hook toothed.

Note:
The set will be delivered in a plastic case **KL-0155-4190**.

6

KL-0284-16 Reaction Wrench

For V-ribbed belts.

When changing the poly-V belt the permanent belt tensioning roller can be loosened with the reaction wrench **KL-0284-16**.

Application: VW Polo, Golf, Passat, T4 and Audi.

Drive:.....½"☐

KL-0284-12 Reaction Wrench

For V-ribbed belts.

When changing the poly-V belt the permanent belt tensioning roller can be loosened with the reaction wrench **KL-0284-12**.

Application: VW Polo, Golf, Passat, T4 and Audi.

Advantages: The attachment element can be changed.

KL-0284-15 Reaction Wrench

For tensioning multi-vee belts, equipped with hardened and milled pins which allow the belt tension to be achieved at the alternator. The milled pins are designed not to slip out of the holes in the alternator.

For **VW-engines** on which the multi-vee belts can only be tightened at the alternator.

Drive:.....½"☐
Diameter (pin to pin):..... 157 mm

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KL-0149-131

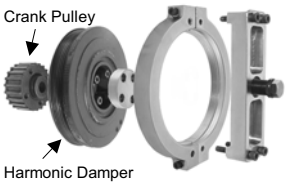


VW-Audi

KL-0282-51



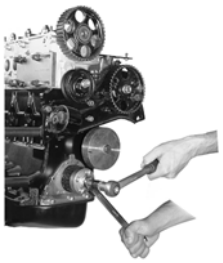
VW T4, LT



KL-0282-50



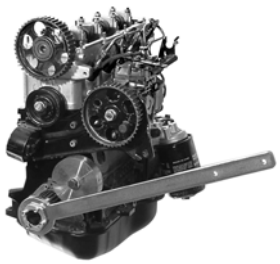
VW-Audi



KL-0284-61



VW-Audi

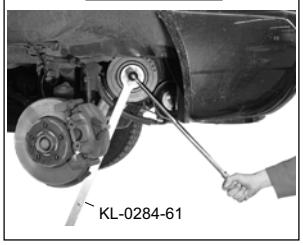


KL-0284-62





VW-Audi



KL-0149-131 Adjustable Pin Spanner

For Audi A4, A6, A8 and VW Passat.

To remove and replace the radiator Visco-Fan.

To loosen and tighten the Visco-Coupling of the radiator fan with the **KL-0123-1** it is necessary to react against the fan-belt pulley using the Adjustable Pin Spanner **KL-0149-131.**

Range: Ø14 -100 mm, Pins Ø5 mm

Accessory:

KL-0123-1 Combination open/ring spanner 32 mm

KL-0282-51 Puller for Harmonic Damper (German Utility Model)

For VW 5-cylinder engines e.g. T4, LT, etc.

Removes the harmonic damper while simultaneously reacting against the crankshaft pulley. The **KL-0282-51** Puller is absolutely necessary if the shoulder of the Pulley has corroded onto the harmonic damper.

Advantages:

- No damage to the harmonic damper.
- High time-savings.

KL-0282-50 Puller for Crankshaft Pulley

For VW-Audi 4 and 5-cylinder engines.

To remove the front pulley from the crankshaft.

KL-0284-61 Reaction Wrench for Crankshaft Pulley (German Utility Model)

For VW-Audi 4- and 5-cylinder engines with and without harmonic damper.

To provide a reaction onto the crankshaft front pulley so that the central pulley bolt may be loosened or tightened.

Required for timing belt changes, oil-seal replacement and during engine repairs.

Advantage:

By using the 2 extension handles, the loosening and tightening of the central crankshaft pulley bolt can be undertaken by a single mechanic.

Consists of:

Adaptor, cylinder bolts (4x), Special cylinder bolts (x 4), Special Ring Spanner 56 mm, Extension handles (x 2)

Length $_{overall.}$ (incl. 2 extensions): .....1800 mm

KL-0284-62 Socket hex 27 mm

Suitable for VW-Audi, Seat, Škoda 4- and 5-cylinder engines with a 27 mm hex bolt at the crankshaft to attach the belt pulleys.

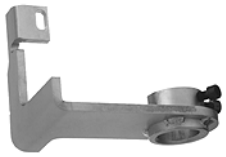
The central crankshaft bolt can be unscrewed or tightened in conjunction with the **KL-0284-61** reaction wrench.

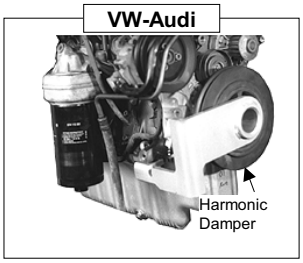
It is required for removing and installing the timing belt, timing belt pulley, radial crankshaft seal ring and vibration damper and for engine repairs.

Hex: .....27 mm
Drive: ..... 1/2" ☐
Length:.....100 mm
Weight: .....350 g

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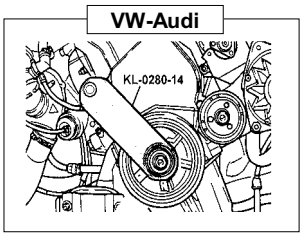
KL-0280-12





KL-0280-14





KL-0282-31



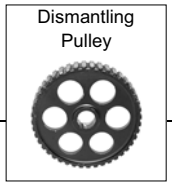


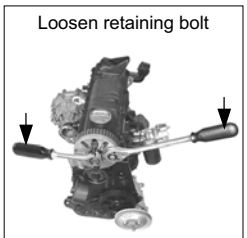
KL-0282-35

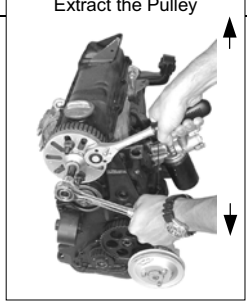


KL-0183-50

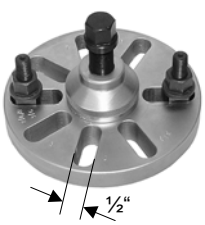








KL-0183-51



KL-0280-12 Locking Tool for Vibrator Damper

To lock the vibrator damper (pulley at the crankshaft) when the central bolt has to be loosened (e.g. changing of the timing belt).

Application: VW engines (e.g. VW T4 Van with 5-cyl. diesel)

KL-0280-14 Locking Tool

For counterbearing of the V-belt pulley / vibration damper while removing the crankshaft-centre bolt.

Application: VW-Audi 5 cylinder diesel engines up to '97 (AAT, ABP, AEL).

KL-0282-31 Reaction Wrench (adjustable)

With inter-changeable tips and several hole intervals.

Suitable for all timing pulleys with holes from minimum Ø 12 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.
A selection of tip-Ø and hole intervals are available to make the wrench almost universal in its range of application.

Technical Data:

Tip distance:.....45 mm to 75 mm Tip-Ø:.....12 mm and 16 mm
Tip height: .....34 mm Tool length: ..... 420 mm

KL-0282-35 Reaction Wrench (adjustable)

Suitable for all timing pulleys with holes from minimum Ø 14 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.
The adjustable lever allows to adjust the hole distance and makes the reaction wrench almost universal in its range of application.

Technical Data:

Tip distance:.....14 mm to 130 mm Tip-Ø:..... 14 mm
Tip height: .....31 mm Tool length: ..... 410 mm

KL-0183-50 Pulley-Extractor and Reaction Tool (Patented)

Universal application ***2 Tools in one***

Loosen the retaining bolt and extract the Pulley

Suitable for all Pulleys with holes with a PCD Ø from 70 mm - 100 mm. Suitable for hole Ø from minimum 20 mm.

To lock the Pulley while loosening or tightening the retaining bolt, as well as preventing the Pulley from rotating during extraction. Any available ½" ratchet or extension drive may be used as the reaction tool

consists of:

Part No.	Description	Qty.
KL-0183-510	Puller Plate	1
KL-0183-531	Hook Ø 20 mm	3
KL-0183-532	Hook Ø 26 mm	3
KL-0008-0009	Shoulder Nut M10	3
KL-0183-540	Pressure-Unit	1

KL-0183-51 Pulley-Extractor and Reaction Tool (Patented)

As **KL-0183-50** but with 2 Hooks Ø- 26 mm and 2 Hexagonal Nuts.

Suitable for VW-Audi, Seat, Škoda, Opel/Vauxhall Ford, BMW, Mercedes, Peugeot, Citroën, Renault, Fiat, Japanese vehicles, etc.

consists of:

Part No.	Description	Qty.
KL-0183-510	Puller Plate	1
KL-0183-532	Hook Ø 26 mm	2
KL-0008-0009	Shoulder Nut M10	2
KL-0183-540	Pressure-Unit	1

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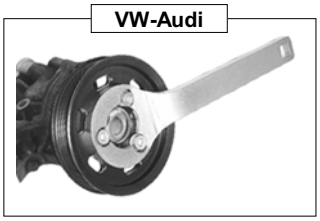
KL-0284-8





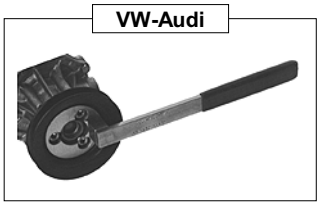
KL-0284-81





KL-0284-11





KL-0484-10



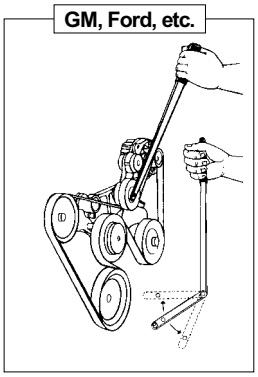
KL-0366-3



Note: Further Reaction wrenches see page 6.5-01.

KL-0183-20





KL-0284-8 Reaction Wrench

For locking the pulley on the water-pump on **VW Polo, Golf, Passat and Audi A4**. Length: .....250 mm

Advantages:

- The ½“ ☐ drive in the tools handle enables an extension of the tool by e.g. a ratchet.
- Easy loosening of stubborn bolts on the water-pump pulley

KL-0284-81 Reaction Wrench

For locking the pulley on the servo-pump on **VW Passat ('97 onwards) and Audi A4 ('99 onwards) etc.**

Necessary to lock the Servo-pulley while loosening or tightening the pulley retaining bolts.

KL-0284-11 Reaction Wrench

For locking of **deep-drawn** water-pump pulleys on **VW and Audi** engines, as they are used when e.g. an air conditioning is also built in. Length: .....298 mm

Advantages:

- Safe locking of the water-pump pulley.
- Easy loosening of stubborn bolts on the water-pump pulley.

Technical Data:

Part No.	KL-0284-8	KL-0284-11
Overall length	250 mm	300 mm
Width	80 mm	65 mm
Height	8 mm	40 mm
Weight	450 g	450 g
Drive	1/2“☐ or by hand	by hand

KL-0484-10 Locking Tool

To block the automatic clamping role of the fan belt on **Opel/Vauxhall** vehicles with Eco Tec-engines.

Also applicable with Audi and VW engines.

Ø 4,0 / 6,0 mm Weight: .....70 g

KL-0366-3 Reaction Wrench Torx® T45

Applicable for Renault 2,2 L diesel engines (G8T) e.g. Espace, Laguna, Safrane etc.

When removing or installing V-belts, the automatic tensioning pulley must be tensioned with the special **KL-0366-3** wrench to reduce stress on the V-belt. Length: .....450 mm

Accessory: KL-0366-30 Torx® Insert T45

KL-0183-20 Reaction Wrench with Socket Set

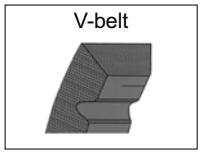
Releases Tension on Serpentine Belts with a spring Loaded Idler Pulley.

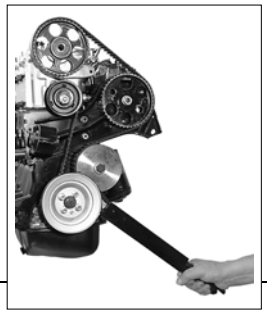
Used to remove and install belts on serpentine belt systems using a spring loaded idler pulley. Will reach where conventional ratchets or breaker bars won't. Fits pulleys requiring 13 mm,15 mm, 16 mm, 18 mm hex and both 3/8“ and ½“ square drive sizes. Also comes with an extension that can be bolted on and set in 11 different positions for hard to reach areas. Covers most applications. Weight: .....1,2 kg

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KL-0183-60





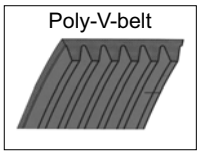


Accessories: KL-0183-6001



KL-0183-61





Accessories: KL-0183-6101



KL-0582-1 / KL-0582-2 **BMW**



KL-0123-1 / KL-0123-2 **BMW, Ford**



KL-0483-1 / KL-0483-2 **Opel**



KL-0183-60 Reaction Wrench
for V-belt Pulleys

To lock the Pulley while loosening or tightening the central pulley retaining bolt.

Universal application for A and V belt pulleys.

Load $_{max.}$: .....150 Nm

Accessories: KL-0183-6001 Replacement belt

KL-0183-61 Reaction Wrench
for Poly-V belt Pulleys

To lock the Pulley while loosening or tightening the central pulley retaining bolt.

Universal application for Poly-V belt pulleys.

Load $_{max.}$: .....100 Nm

Accessories: KL-0183-6101 Replacement belt

KL-0582-1 Locking Tool for Visco-Fan

To provide a reaction point to dismantle the visco-coupled cooling-fan.

Hole distance:.....38 mm Weight: .....500 g

KL-0582-2 Locking Tool for Visco-Fan

As **KL-0582-1** but with

Hole distance:.....44,5 mm Weight: .....400 g

KL-0123-1 Reaction Wrench 32 mm hex.

For reaction of the visco-coupling drive when removing or installing the visco-coupling on **BMW and Ford** vehicles.

Length: .....280 mm

Technical Data see **KL-0483-2.**

KL-0123-2 Reaction Wrench 36 mm hex.

For reaction of the visco-coupling drive when removing or installing the visco-coupling on **Ford, Opel/Vauxhall and GM** vehicles. Length: .....280 mm

Technical Data see **KL-0483-2.**

KL-0483-1 Reaction Wrench 46 mm hex.

For twisting the water pump when tightening the belt on **Opel/Vauxhall and GM** OHC-engines

Technical Data see **KL-0483-2.**

KL-0483-2 Reaction Wrench 41 mm hex.

For twisting the water pump when tightening the belt on **Opel/Vauxhall and GM** OHC-engines.

Advantages:

- Safe reaction of the visco-coupling.
- No damage to the visco-coupling.
- High quality of the wrench due to special manufacturing process.

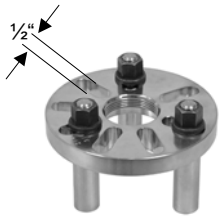
Technical Data: (Reaction Wrench):

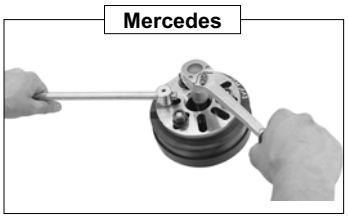
Part No.	KL-0123-1	KL-0123-2	KL-0483-1	KL-0483-2
Width Across Flats	32 mm	36 mm	46 mm	41 mm
Overall length	280 mm	280 mm	125 mm	125 mm
Height	11 mm	11 mm	55 mm	55 mm
Weight	346 g	340 g	270 g	275 g
Drive	-	-	½“ □	½“ □

6

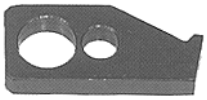
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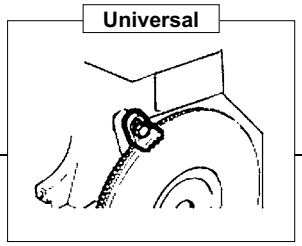
KL-0366-80





KL-0481-7

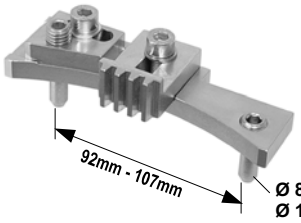


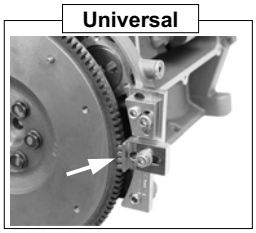


KL-0182-1



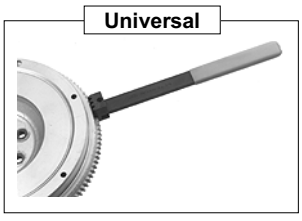
KL-0182-10





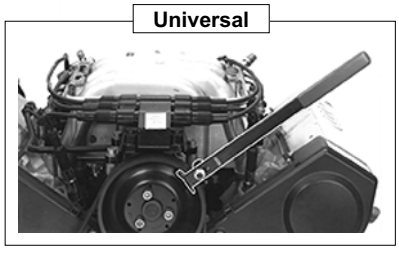
KL-0110





KL-0366-4





KL-0366-80 Reaction Tool

Applicable for Mercedes engines e.g. M112.

For counter-holding the crankshaft belt pulley when screwing and unscrewing the central crankshaft bolt.

KL-0481-7 Flywheel Locking Tool

To lock the flywheel when the gearbox is dismounted.

Application: Opel/Vauxhall engines:

- OHV 1,0, 1,2
- OHC 1,2 - 1,3 - 1,4 - 1,6 - 1,8 - 2,0
- DOHC 2,0 16V
- OHC 1,5 D - 1,5 DT - 2,0 D - 2,3 DT
- CIH 4 + 6 cylinder 2,2 - 2,4 - 2,5 - 3,0

KL-0182-1 Flywheel Locking Tool

To lock the flywheel when the gearbox is dismounted. **Universal** application.

KL-0182-10 Flywheel Locking Tool
adjustable (German Utility Model)

To lock the flywheel when the gearbox is dismounted.

Universal application. The tool can be adjusted axially and radially and can be used almost universally by screwing in different stud bolts.

Accessory: KL-0182-1017 Bolt Ø 10 mm x 35 mm
KL-0182-1018 Bolt Ø 10 mm x 45 mm

KL-0110 Flywheel Locking Tool (Universal)

Necessary for dismantling or re-assembling flywheels, clutch pressure plates and belt pulley.

Length:.....250 mm
Weight: .....0,5 kg

KL-0366-4 Pulley Spinning Tool

For deep forged pulleys to turn off the crankshaft, camshaft, etc.

Length:.....325 mm

Application:

Mercedes, VW-Audi, BMW, Ford, Opel, Peugeot, Renault, Rover, Volvo, Japanese cars.

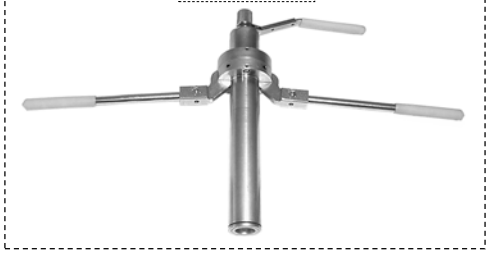
Attention:
KL-0366-4 is not a counter-holding wrench for shafts.

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KL-0181-90

Universal

KL-0181-900





KL-0181-901



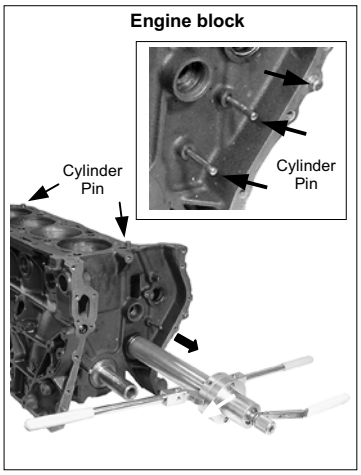
For unhardened pins

KL-0181-911



For hardened pins

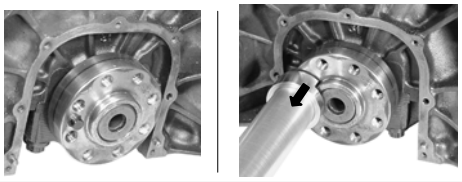
Engine block



Accessory: KL-0181-920



crankshaft



KL-0181-93

Mercedes



Oil injection nozzle



Note:
Guide sleeve puller for Ø 5 - 10 mm see page 6.6-02.

KL-0181-90 Puller for Cylinder Pin

(German Utility Model)

Removing pins from engine blocks (Aluminium or Steel), Crankshafts, Flywheels, etc. is a real problem for the Mechanic, and even impossible if the pin is hardened. The newly-developed KLANN Puller **KL-0181-90** is the solution to this well-known problem.

By using the appropriate Chuck both hardened and unhardened pins can be removed within a few seconds.

Part No:	Description:
KL-0181-90	**Puller for cylinder pins**
consists of:	
KL-0181-900	Puller for Cylinder Pin Basic Tool
KL-0181-9915	Plastic distance plate 5 mm
KL-0181-9916	Plastic distance plate 10 mm
KL-0181-9917	Plastic distance plate 20 mm
KL-0181-9918	Plastic Support Ring
KL-0181-901	**Chuck Set Ø6/8/10 mm for unhardened pins**
KL-0181-911	**Chuck Set Ø6/8/10 mm for hardened pins**

Part No:	Description:
KL-0181-901	**Chuck Set Ø6/8/10 mm for unhardened pins**
consists of:	
KL-0181-9006	Chuck Ø6 mm for unhardened pins
KL-0181-9008	Chuck Ø8 mm for unhardened pins
KL-0181-9010	Chuck Ø10 mm for unhardened pins

Part No:	Description:
KL-0181-911	**Chuck Set Ø6/8/10 mm for hardened pins**
consists of:	
KL-0181-9106	Chuck Ø6 mm for hardened pins
KL-0181-9108	Chuck Ø8 mm for hardened pins
KL-0181-9110	Chuck Ø10 mm for hardened pins

Accessory:

KL-0181-920 Extension Set for Crankshaft Pins

consists of:

Part No:	Description:
KL-0181-9201	Support Ring
KL-0181-9208	Chuck Ø8 mm for unhardened pins

Supplementary Accessories:

KL-0181-9202 Support ring 14 mm
KL-0181-9203 Support ring 18 mm
KL-0181-9204 Chuck Ø4 for unhardened pins (6 mm enlarged)
KL-0181-9209 Chuck Ø9 for unhardened pins (5 mm enlarged)
KL-0181-9214 Chuck Ø14 for oil injection nozzles MB

KL-4990-1017 Plastic case (not Ill.)
Measurement: Outer 450x365x106 mm
Inner 437x295x100 mm

KL-0181-93 Puller for oil injection nozzles with support frame

(German Utility Model)

To be used in the same way as the **KL-0181-90** but with a support frame for pulling the oil injection nozzle out of the engine housing.

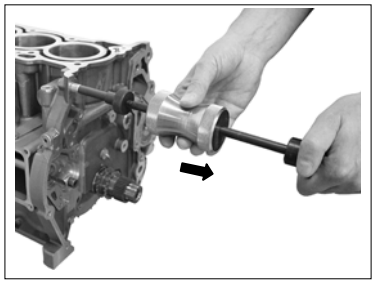
Mercedes CDI engines OM 611, 612, 613.

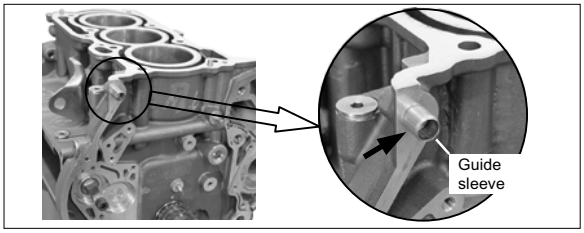
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KL-0181-80

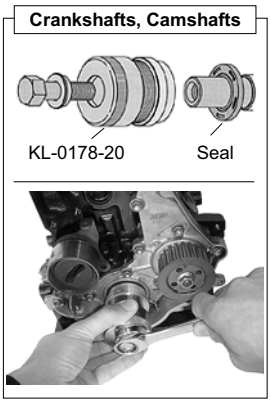






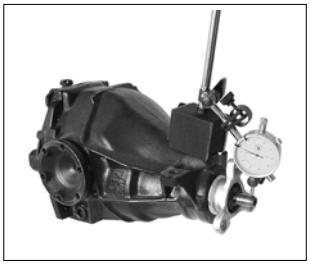
KL-0178-20





KL-0128-31





KL-0140-50





KL-0181-80 Guide sleeve puller
(German Utility Model)

Guide sleeves can be pulled out and knocked in without incurring any damage. The puller works on the principle of an internal collet chuck.

In engine and gearbox engineering, so-called guide sleeves are used for accurate fixing of the housing halves. These guide sleeves should therefore not be installed or removed with tongs or a hammer.

consists of:

Part-No.	Description
KL-0181-80	**Guide Sleeve Puller**
consists of:	
KL-0181-800	Slide hammer
KL-0181-8005	Internal collet chuck Ø 5 mm
KL-0181-8006	Internal collet chuck Ø 6 mm
KL-0181-8007	Internal collet chuck Ø 7 mm
KL-0181-8008	Internal collet chuck Ø 8 mm
KL-0181-8009	Internal collet chuck Ø 9 mm
KL-0181-8010	Internal collet chuck Ø 10 mm

Accessories: KL-4990-1007 Plastic case

Measurement: Outer 340x275x83 mm
Inner 326x222x77 mm

KL-0178-20 Seal Renewal Tool Set

Suitable for Crankshafts and Camshafts.

Seal Rings with an outer Ø from 42 to 60 mm and located up to 85 mm from the shaft-end, can be quickly, easily and safely replaced, *without the need to dismantle the engine*.

KL-0128-31 Dial Gauge with Stands

Consists of **KL-0128-1** and **KL-0128-3**.

- To measure the distortion of the brake disc.
- For adjusting the engine and transmission.

Strong rods of tool-steel, with fine adjustment for dial-gauge-clamp, prismatic magnetic base. Inclusive Dial Indicator Ø 58 mm and Wooden Case.

KL-0128-1 Dial Indicator Ø 58 mm

Description: Stem and spindle stainless steel, accuracy to DIN 878-A.

Reading: .....0,01 mm
Measuring Range: .....10 mm
Housing-Ø: .....58 mm
Set nut revolution by 360°:.....1 mm
Stem-Ø: .....8 h 6

KL-0128-3 Dial Gauge without Stands

Note: More Informations about Measuring Tools and Accessories **see Chapter 10.**

KL-0140-50 Precision-Inside-Measuring-Tools

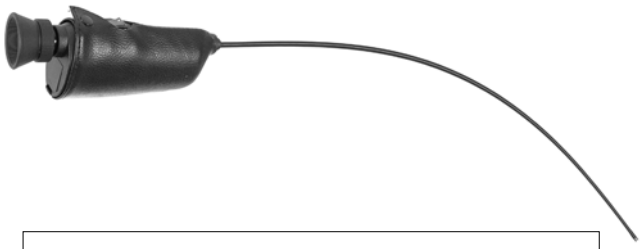
Dial gauge for measuring of cylindrical bores, especially for petrol and diesel engines. Includes dial-gauge and wooden case.

Measuring range.....Ø 50-178 mm
Measuring depth:.....180 mm

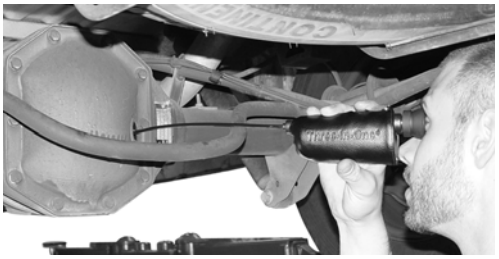
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KL-0140-90

Universal







Accessories:

KL-0140-902 Mirror 45°

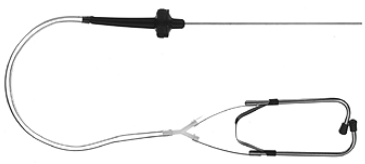


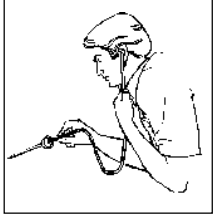
KL-0140-901 Bulb set



KL-0140-95

Universal





KL-0140-90 Endoscope

For optical tests in the less accessible places or inside mechanical devices such as motors, gearboxes or axle drives.

The endoscope allows to focus the many inside components and consequently to perform analyses and tests sparing time and expensive dismantling works.

The long and flexible 4.5 mm optical feeler, its light and manageable casing together with its simple single-hand operation make possible to perform a quick and precise optical test even in the most difficult- to-reach places.

The optical feeler has been especially designed so that the light of the lamp placed in the casing is led through the optical fibres to the feeler head, where it forms a ring around the lens. This allows to have the max. brightness without any lamp or other power source in the lens. (Important when working in explosion-hazardous areas)

The feeler housing is delivered in a dustproof leather case.

Advantages:

- Extra-thin 4.5 mm feeler (length: 450 mm) e.g. for CDI glow-plug bore.
- Light source in the housing.
- Single-hand operation.
- Highflexible feeler for less accessible places.
- Anti-skidding focus ring.

Specification:

Part No.	Description	Qty.
KL-0140-900	Endoscope	1
KL-0140-901	Bulb set	1
	Plastic case	1
	Batteries 1,5 V (AA)	2

Accessories:

KL-0140-902 Mirror 45°

It allows 90° lateral view.

KL-0140-901 Bulb set (5 pieces)

KL-0140-95 Stethoscope

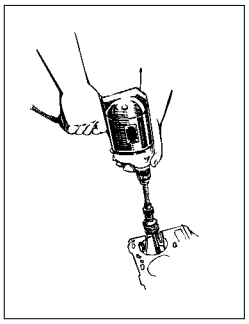
Quickly pinpoints the source of noises in engines, transmissions, differentials and bearings.

Length: ..... 1100 mm Weight: ..... 115 g

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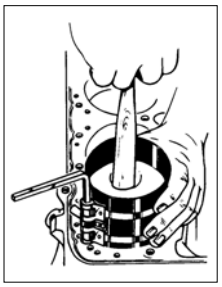
KL-0199-12





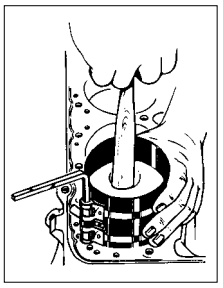
KL-0126-44 KL-0126-45





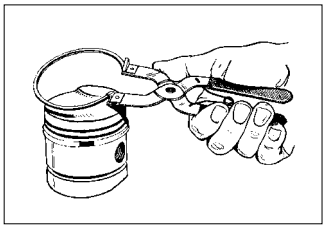
KL-0126-46 KL-0126-48
KL-0126-47





KL-0126-43





KL-0199-12 Hone Tool Ø 51-175 mm

Controlled pressure assures positive, adjustable contact through full range. Operates with any electric drill.

The hone arms are self-spreading and tensioning.

Suitable for Bores, Cylinders, Bearing Housings, etc.

Technical Data:

Hone Tool: Cylinder-Ø: 51-175 mm Weight: 570g
Hone Stone: Length: .....100 mm

Accessories:

KL-0199-125 Hone Stones Set (3 Pcs.)
Measure:..... 11 mm x 100 mm
Weight: .....57 g

KL-0199-126 Hone Stones Set hard (3 Pcs.)
Measure:..... 11 mm x 100 mm
Weight: .....57 g

Accessories Hone Stones for „old Version“:

KL-0199-121 Hone Stone (3 Pcs.)
Length:.....76 mm
Weight: .....57 g

KL-0199-122 Hone Stone Set hard (3 Pcs.)
Length:.....76 mm
Weight: .....57 g

Ring Compressor

The spring clutch assures a proper fit on the piston and a positive locking action.

Part No.	Description	Height [mm]	Ø [mm]	Weight [g]
KL-0126-44	Piston Ring Tightening Strap	39	57 - 125	170
KL-0126-45	Piston Ring Tightening Strap	52	40 - 75	115
KL-0126-46	Piston Ring Tightening Strap	89	57 - 125	315
KL-0126-47	Piston Ring Tightening Strap	89	90 - 175	400
KL-0126-48	Piston Ring Tightening Strap	178	90 - 175	765

KL-0126-43 Piston Ring Pliers

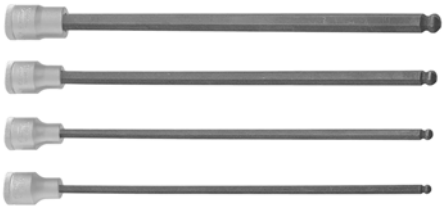
Tapered jaws to remove and install most passenger **car and light truck** rings from 1,2 - 6,3 mm.

Weight:..... 115 g

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KL-4022-241

1/2" □



Note: Further socket inserts see chapter 10.

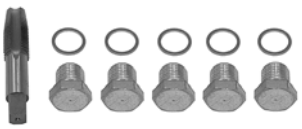
KL-0100-6



KL-0132-48



Content:



KL-0122-912

Opel



KL-4022-241 Socket Insert Set “Ball head”

Extra-long design with ball head.

Ideal for unscrewing and tightening internal socket screws that sit very deep or are hard to access e.g. on the oil pan, cylinder head, engine, drive, etc.

Application examples:

KL-4022-2405 For oil pan bolts in VW T4 5-cylinder engines;

KL-4022-2408 Removal and installation of knock sensor on Audi V6 engines

Special Socket set, “Ball head”, 1/2"

Part-No.	Description	Qty.
KL-4022-241	**Special Socket set, “Ball head”**	**1**
consists of:		
KL-4022-2405	Special Socket, “Ball head” hex 5 mm	1
KL-4022-2406	Special Socket, “Ball head” hex 6 mm	1
KL-4022-2408	Special Socket, “Ball head” hex 8 mm	1
KL-4022-2410	Special Socket, “Ball head” hex 10 mm	1

Drive: ..... 1/2"□
Length: ..... 288 mm

KL-0100-6 Extension, Length 600 mm

This tool is essential for works on gearbox, engine and on the exhaust system.

Drive: ..... 1/2"□ to 3/8"■

KL-0132-48 Oil Drain Plug Repair Kit M14x1,5

For threads M14×1,5, Includes a special thread borer **(KL-0132-481)**, 5 Threaded Plugs **(Set = KL-0132-482),** 5 Washers **(Set = KL-0132-483)** and wooden case / plastic case.

KL-0122-912 Socket hex 24 mm

Applicable for Opel 1,8 petrol engines e.g. Opel Zafira.

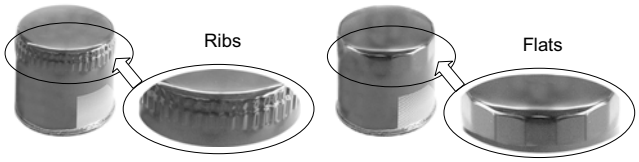
To remove and install the oil pressure switch.
Due to the special shape, the ribbed V-belt tensioning pulley does not need to be removed.

Hex: ..... 24 mm
Length:: ..... 70 mm
Drive: ..... 1/2"□
Weight ..... 260 g

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Identify the suitable oil filter key:

1. Ribs or Flats?

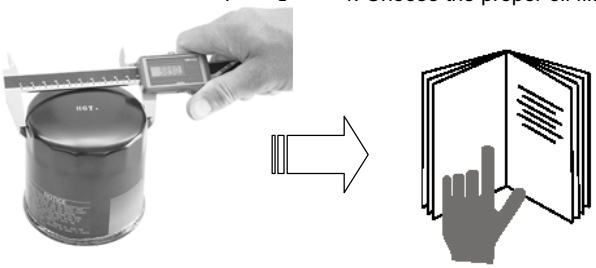


2. Count the number of ribs or flats.



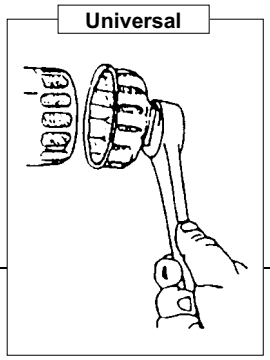
3. Measure the wrench opening.

4. Choose the proper oil filter key.



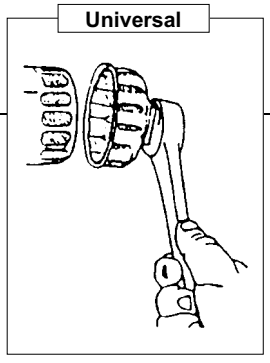
KL-0122-332





KL-0122-334





KL-0122-335



Oil Filter Key

To identify the proper oil filter key perform the following steps:

1. Verify if the filter has flats or ribs.
2. Count the number of ribs or flats.
3. Measure the wrench opening by means of a vernier caliper.
4. Choose the suitable oil filter key from the table on page 6.7-03 or from the pages 6.7.

KL-0122-332 Oil Filter Key 78 mm

Suitable for **Ford, Mitsubishi, Nissan, Toyota,** etc.

For oil filter with 78 mm and 15 flats.

Drive: ..... 3/8“☐

KL-0122-334 Oil Filter Key 95 mm

Suitable for **Alfa Romeo, Chrysler, Ford, Toyota** etc.

For oil filter with 95 mm and 15 flats.

Drive: ..... 3/8“☐

KL-0122-335 Oil Filter Key 99 mm

Suitable for **Toyota** etc.

For oil filter with 99 mm and 15 flats.

Drive: ..... 3/8“☐

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KL-0122-31 K



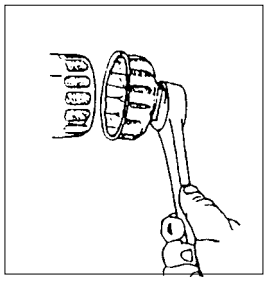
KL-0122-32 K



VW-Audi
BMW
Fiat
Lancia
Mercedes
Seat
Skoda
Volvo
etc.

KL-0122-301 - KL-0122-327





KL-0122-15





KL-0122-3.. Oil Filter Key

The re-inforced and profiled Oil Filter Tools correspond to the Oil Filter Cartridge. Drive:.....3/8"□

KL-0122-31 K Oil Filter Key Set consists of:
KL-0122-32 K Oil Filter Key Set consists of:

Part No:	Filter Profile and Application examples:		
KL-0122-301	**74 mm • 14 Flats • 1 Step** ⇨ Audi (e.g. A3 TDI) • BMW (E36 with 4 Cyl. engine) • Citroën • Fiat • Ford • Lancia • Mazda (e.g 6 with 4-cyl. engine) • Mercedes (e.g. CDI engines, C- and E-Class with 4 and 6 Cyl. petrol engines) • Nissan • Opel • Peugeot • Porsche • Renault • Toyota • VW (e.g. Golf IV TDI) • etc.		●
KL-0122-302	**74 mm • 15 Flats • 2 Steps** ⇨ Ford • Opel • etc.		●
KL-0122-303	**76 mm • 15 Flats • 2 Steps** ⇨ VW-Audi • Mercedes • Opel • etc.		●
KL-0122-304	**91 mm • 15 Flats • 1 Step** ⇨ Alfa Romeo • Fiat • Ford • Honda • Mazda • Mitsubishi • Nissan • Opel • Porsche • Renault • Volvo • VW-Audi etc.		●
KL-0122-305	**79 mm • 15 Flats • 1 Step** ⇨ Ford • Honda • Isuzu • Mazda • Nissan • Opel • Subaru • Toyota • etc.		●
KL-0122-306	**Ø 74 mm • 30 Ribs • 1 Step** ⇨ Ford • etc.		●
KL-0122-307	**Ø 92 mm • 36 Ribs • 1 Step** ⇨ Ford • etc.		●
KL-0122-308	**64 mm • 14 Flats • 1 Step** ⇨ Fiat • Daihatsu • Nissan • Toyota • Honda • etc.		●
KL-0122-309	**65 mm • 14 Flats • 2 Steps** ⇨ Daihatsu • Toyota • etc.		●
KL-0122-310	**72 mm • 14 Flats • 1 Step** ⇨ Toyota • Mini Diesel• etc.		●
KL-0122-311	**67 mm • 14 Flats • 1 Step** ⇨ Mazda • Ford • etc.		●
KL-0122-312	**Ø 86 mm • 18 Ribs • 1 Step** ⇨ VW (e.g. Golf III / Passat '96-onwards with TDI-engine) • Audi (e.g. A6 -.'96 withTDI-engine 115 hp) • Renault (e.g. Clio; Rapid 1;9 D and Laguna, Safrane; Espace III 2,1 D) • etc.	●	
KL-0122-313	**Ø 96 mm • 18 Ribs • 1 Step** ⇨ Audi (e.g. A4 withTDI-engines) • VW (e.g. Touareg with V 10 TDI engines, Passat '97-onwards with TDI-engines) • Renault (z.B. Master 2,5 / 2,8 D / TD , Laguna ; Safrane ; Espace III 2,2 D • R19 ; Rapid and Megane 1,9 / 2,1 D / TD) • Opel (e.g. Movano 2,5 / 2,8 D / TD) • etc.	●	
KL-0122-314	**82 mm • 15 Flats • 2 Steps** ⇨ Honda • Mazda • Nissan • Subaru • Toyota • etc.		●
KL-0122-315	**89 mm • 15 Flats • 1 Step** ⇨ Honda • Isuzu • Mitsubishi • etc.		●
KL-0122-316	**100 mm • 15 Flats • 1 Step** ⇨ Isuzu • Mitsubishi • etc.		●
KL-0122-317	**Ø 93 mm • 45 Ribs** ⇨ VW-Audi (diesel, TDI and 2,4 / 2,6 and 2,8 L engines), etc.	●	
KL-0122-318	**Ø 66 mm • 6 Ribs** ⇨ Fiat (e.g. Punto 1,2) ⇨ Renault (e.g. Clio 1,2; Express; Kangoo; Rapid; Twingo; etc.	●	
KL-0122-319	**Ø 76 mm • 12 Ribs** ⇨ Fiat (e.g. Ducato, Scudo, Ulysee), • Mercedes (all with Purflux Filter LS 918), • Renault (e.g. Megane, Laguna Espace III , Trafic 1,9 diesel, Master 1,9 diesel), • Peugeot (e.g. 307) • Honda (e.g. Prelude BA4 2,0 16V engine), • Opel (e.g. Vivaro), etc.	●	
KL-0122-320	**Plastic case for KL-0122-31 K**		●
KL-0122-321	**108 mm • 18 Ribs** ⇨ Renault (e.g. Espace; Laguna; Master; Safrane; Traffic 2,4 / 2,5 / 2,8 D / TD), etc.	●	
KL-0122-322	**106 mm • 15 Flats** ⇨ Fiat (e.g. Ducato 2,5 D / TD), etc.	●	
KL-0122-323	**74 mm • 8 Flats** ⇨ Fiat (e.g. Marea) • Lancia (e.g. Delta), etc.	●	
KL-0122-324	**92 mm • 10 Flats** ⇨ Fiat (e.g. Cinquecento, Coupé, Croma, Panda, Regata, Ritmo, Seicento, Tempra and Tipo) • Lancia (e.g. Beta, Dedra, Kappa, Monte Carlo, Prisma, Thema and Trevi), etc.	●	
KL-0122-326	**86 mm • 16 Flats** ⇨ BMW (e.g. 316i, 318i '01-onwards etc) • Volvo (e.g. S40, S70 etc), etc.	●	
KL-0122-327	**108 mm • 15 Flats** ⇨ Volvo (e.g. C70/S70/V70 - TDI Turbo diesel, 850 TDI Turbo Diesel), etc.	●	
KL-0122-329	**Adaptor 1/2" to 3/8"**	●	●
KL-0122-330	**Plastic case for KL-0122-32 K**	●	
KL-0122-15	**3-legged Oil Filter Tool Ø 65 - 120 mm**	●	

Oil Filter Tool Sets **KL-0122-31 K** and **KL-0122-32 K** are delivered in a durable Plastic Storage Case.

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KL-0122-3



VW-Audi, BMW Mercedes



KL-0122-212



VW-Audi, Seat, Skoda



KL-0122-213



VW-Audi, Seat, Skoda



KL-0122-217



VW-Audi, Skoda, etc.



KL-0122-219



VW-Audi, Skoda, etc.



KL-0122-3 Oil Filter Key

Applicable on **VW-Audi, BMW, Citroën, Fiat, Ford, Lancia, Mazda, Mercedes, Nissan, Opel/Vauxhall, Peugeot, Porsche, Renault, Suzuki, Toyota,** etc.

Especially suitable for **Audi A3 TDI, VW Golf IV TDI, BMW E36 with 4-cylinder engines, Porsche Cayenne, Boxster, 911 and Mercedes CDI engines, as well as C- and E-Class with 4- and 6-cylinder petrol engines**

For Oil Filter with 74mm and 14 Flats.

Drive: .....SW 22 mm

KL-0122-212 Oil Filter Key

Applicable for **VW-Audi, Seat**, **Škoda** etc.

Especially suitable for VW (e.g. Golf III / Passat up to '96 with TDI-engine) • Audi (e.g. A6 up to '96 with TDI-engine 115 hp) • Renault (e.g. Clio; Rapid 1,9 D and Laguna, Safrane; Espace III 2,1 D) • etc

For Oil Filter with Ø 86mm and 18 Ribs.

Drive: ..... 3/8"☐

KL-0122-213 Oil Filter Key

Applicable for **VW-Audi, Seat**, **Škoda** etc.

Especially suitable for Audi (z.B. A4 with TDI-engine) • VW (e.g. Touareg with V 10 TDI engine, Passat'97-onwards with TDI-engine) • Renault (e.g. Laguna; Safrane; Espace III 2,2 D • R19; Rapid and Megane 1,9 / 2,1 D / TD) • Opel/Vauxhall (e.g. Movano 2,5 / 2,8 D / TD) • Renault (e.g. Master 2,5 / 2,8 D / TD) • etc.

For Oil Filter with Ø 96mm and 18 Ribs.

Drive: ..... 3/8"☐

KL-0122-217 Oil Filter Key

Applicable for **VW-Audi, Seat**, **Škoda** etc.

Especially suitable for VW-Audi (Diesel, TDI and 2,4 / 2,6 and 2,8 engine), etc.

For Oil Filter with Ø 93mm and 45 Ribs

Drive: ..... 3/8"☐

KL-0122-219 Oil Filter Key

Applicable for **VW-Audi, Mercedes, Seat**, **Škoda** etc.
(with Purflux Filter LS 918)

Especially suitable for Mercedes with 6-cylinder petrol engine M102 and M103.

Due to the particularly compact oil filter wrench design, the oil filter on Mercedes M102 and M103 engines can be exchanged without the need to remove the induction pipe.

For Oil Filter with Ø 76mm and 12 Ribs.

Drive: ..... 3/8"☐

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KL-0122-2





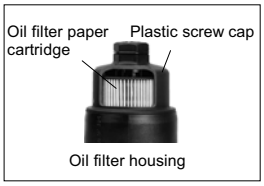
KL-0122-5 / KL-0122-51 / KL-0122-52





KL-0122-3300 K

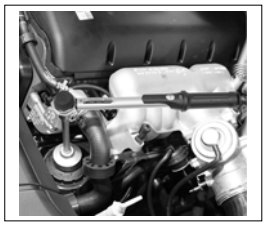




Note: The torque wrench is not part of the kit.

Accessory: 4549-05 TORCOFIX K





KL-0122-426





KL-0122-2 Oil Filter Key

For **VW-Audi** diesel engines with MANN-, Mahle- or Knecht- filter. This tool is especially applicable for removal of oil filters in narrow space conditions. Drive: ..... 22 mm hex or 1/2“☐

KL-0122-5 Oil Filter Socket 36 mm hex

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Application e.g. for **BMW 1 series; Mini One/ Cooper/ Cooper S** and **VW Touareg, T5** as well as **Mercedes** Diesel engines OM604, OM605, OM606 the **BMW** engines M52 6-cyl., M60 8-cyl., M70 12-cyl, and the **VW** VR6 engine. Drive: ..... 3/8“☐

KL-0122-51 Oil Filter Socket 32 mm hex

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Applicable for Opel e.g. on X10XE, X12XE, Y17DT, Y17DTL engines, Mercedes HGV’s e.g. OM 364, OM 366 engines and Skoda Superb. Drive: ..... 3/8“☐

KL-0122-52 Oil Filter Socket 27 mm hex

As **KL-0122-51**, but applicable for Mercedes e.g. A-Class (W169) and Smart. Drive: ..... 3/8“☐

KL-0122-3300 K Set of Oil Filter Keys in plastic case

Universally suitable to most of the vehicles with paper oil filters and plastic or metal screw cap.
When installing the oil filter, the plastic or metal screw cap **must** be tightened to a given torque. Non-observance can lead to damage to the plastic screw cap. The new set of oil filter keys **KL-0122-3300 K** with its 6 oil filter keys, together with the torque wrench **4549-05** (accessory) offers the ideal solution to this problem.

Universally applicable e.g. for: • VW-Audi e.g.: TDI ⇒ Golf III, Passat, A4;TDI PD ⇒ A2, A3, A4, A6, TT, Lupo, Polo, Golf IV/V, Passat, Sharan, Touareg, T4, T5; • BMW e.g.: 1st (E87), 3rd (E36, E46), 5th (E39, E60), 7th (E38, E65), Z3, Z4, X3, X5; • Mini e.g.: Mini One, Cooper, Cooper S; • Mercedes e.g.: A-, C-, E- and S-Class as well as Sprinter; • Opel e.g.: Agila, Astra G / H, Corsa C, Meriva, Signum, Vectra B / C, Zafira.

Supplied tools (KL-0122-3300 K):

Part No.	Description
KL-0122-301	Oil filter key 74 mm 14-flats
KL-0122-313	Oil filter key Ø96 mm 18-ribs
KL-0122-326	Oil filter key 86 mm 16-flats
KL-0122-5	Oil filter key 36 mm
KL-0122-51	Oil filter key 32 mm
KL-0122-52	Oil filter key 27 mm
KL-0122-3390	Plastic case (empty)

Accessory: 4549-05 - TORCOFIX K Code: 1545140

5-50 Nm, Length: 335 mm, graduation: 0,25 Nm, weight: 540 g

KL-0122-426 Oil Filter Key 86 mm 16-Flats bonded

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Especially suitable for Volvo (e.g. S40, S70 etc), etc.

For Oil Filter with 86mm and 16 Flats.
Drive: ..... 3/8“☐

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KL-0122-601 / KL-0122-602





KL-0122-7



KL-0122-605





KL-0122-606



KL-0122-651



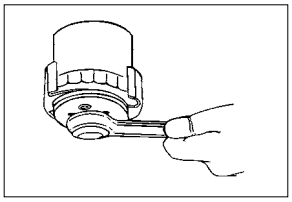
KL-0122-12





KL-0122-13 / KL-0122-14





Oil Filter Key

Allows quick and easy removal of stubborn Oil Filters.

Part-No.	Measures and Application:	Drive	Weight
KL-0122-601	**Ø 66 mm • 6 Ribs** ⇨ Renault (Twingo, Clio with D-Petrol engines and filter-No. 77 00 869 029)	3/8“	191 g
KL-0122-602	**Ø 108 mm • 18 Ribs** ⇨ Renault (Trafic, Master, Safrane with S8U-engines and filter No. 77 00 860 823)	3/8“	289 g
KL-0122-7	**Ø 76 mm • 12 Ribs • with grip** ⇨ Ford with 1,8 diesel-engines and motorcraft-filter EFL 344 • Peugeot with Purflux-filter • Renault (R5, Twingo, Rapid with C-Petrol engines; Clio, Kangoo with E-Petrol engines; R19, Espace III, Laguna with F-Petrol engines; Megane, Kangoo with K-Petrol engines and filter-No. 77 00 873 583; R21, Espace I + II with F-Petrol engine; Trafic with J-Petrol engine and filter-No. 77 00 720 978) • etc.	Grip	293 g

KL-0122-605 Oil Filter Key
135 mm 18 flats

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Applicable e.g. for the **MAN** 18 - 48 tons series **F2000, FE and TGA.** (MANN Filter No. HU 1381 x)

Drive: ..... 1/2"☐

KL-0122-606 Oil Filter Key
106 mm hex. 15 flats

Stubborn and hard to reach oil filters quickly and easily removed and replaced.

Applicable e.g. for the **MAN** 8 - 10 tons series **L2000, LE, M2000 and ME.** (MANN Filter No. W 1160)

Drive: ..... 1/2"☐

KL-0122-651 Oil Filter Key
106 mm hex. 15 flats

Stubborn and hard to reach oil filters quickly and easily removed and replaced.

Applicable e.g. for the **MAN** 8 - 10 tons series **L2000, LE, M2000 and ME.** (MANN Filter No. W 1160)

Drive: ..... 1/2"☐

KL-0122-12 Oil Filter Key

For Oil Filter with Ø 60-125 mm.

Drive: ..... 3/8"☐

KL-0122-13 Oil Filter Key Ø 64-80 mm

The large range enables this wrench to fit most standard size filters. Steel jaws grip filter without slipping. Works great in tight spots since it works from the top of the filter.

Clamping range: .....Ø 64-80 mm
Weight: .....400 g
Drive: ..... 3/8"☐

KL-0122-14 Oil Filter Key Ø 80-98 mm

As **KL-0122-13** but with:

Clamping range: .....Ø 80-98 mm
Weight: .....400 g
Drive: ..... 3/8"☐

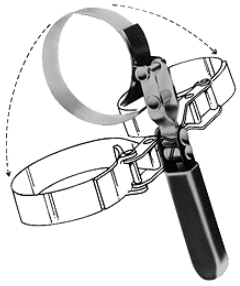
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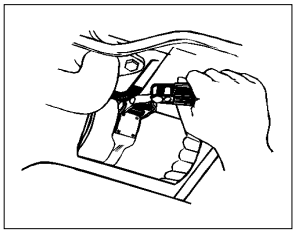
KL-0122-4





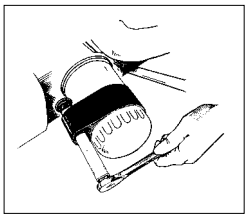
KL-0122-801 / -804





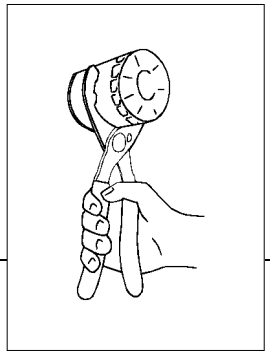
KL-0122-40





KL-0122-851





KL-0122-852



KL-0231-30



VW-Audi
4 motion/Quattro

KL-0122-4 Oil Filter Key

Universal application, with strong chain.

Clamping range: ..... Ø 50 - 110 mm
Drive: ..... 1/2"□

"Swivel Grip" Oil Filter Wrenches

Handle Swivels to Clear Obstructions.

All models feature the swivel handle, gripper "teeth" and 1" wide stainless steel band. The swivel handle makes it easy to turn filters in hand to reach locations. Vinyl covered handle.

Part No.	Description	Range	Weight
KL-0122-801	Oil Filter Key	Ø 60 - 66 mm	310 g
KL-0122-802	Oil Filter Key	Ø 73 - 82 mm	370 g
KL-0122-803	Oil Filter Key	Ø 89 - 98 mm	370 g
KL-0122-804	Oil Filter Key	Ø 105 - 112mm	400 g

KL-0122-40 Oil Filter Belt up to Ø152 mm

For Filters up to 152 mm.

Adjusts quickly to fit any spin-on filter up to 152 mm diameter. Strong nylon belt.

Drive: ..... ½" □
Weight: ..... 280 g

KL-0122-851 Oil Filter Pliers Ø 57-100 mm

Suitable for HGV's, Tractors, etc.

The tool has 2 steps allowing a wide operating range from 57 to 100 mm. For better handling, the Jaws are angled by 20°. Hardened teeth prevent the tool slipping.

Slip Joint Handles for greater Range.

Range: ..... Ø 57-100 mm
Weight: ..... 560 g

KL-0122-852 Oil Filter Pliers Ø 92-152 mm

Suitable for HGV's, Tractors, etc.

The tool has 2 steps allowing a wide operating range from 92 to 152 mm. For better handling, the Jaws are angled by 20°. Hardened teeth prevent the tool slipping.

Slip Joint Handles for greater Range.

Spannbereich: ..... Ø 92-152 mm
Gewicht: ..... 760 g

KL-0231-30 Oil Filter Key

Suitable for 4-wheel vehicles VW Bora, Golf IV/V, Sharan, Touran 4motion as well as Audi A3 and TT Quattro etc.

To remove and install the Haldex-clutch oil filter.

Length: ..... 400 mm
Weight: ..... 700 g

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KL-4041-3045





Opel



Oil Drain Plug

KL-0231-2





VW-Audi



Oil Drain Plug

KL-0231-1





VW-Audi



Oil Drain Plug

KL-0122-901 K







KL-0122-902

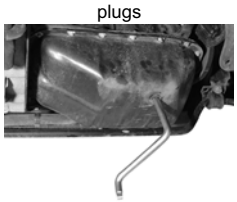
■ 8 mm



■ 10 mm

Citroën, Renault, Peugeot

Removal and replacement of oil drain plugs



KL-0362-803 / KL-0362-804

Mercedes



KL-0362-801 / KL-0362-802

Mercedes



KL-0362-1 **KL-0362-2**

Mercedes





KL-4041-3045 Special Socket Insert T45

For removal and replacement of the Gear Box drain plug Torx® T45.
Application: Opel/Vauxhall.

Weight: .....85 g
Length:.....55 mm Drive:..... 1/2"☐

KL-0231-2 Special Socket Insert XZN M16,

For removal and replacement of the Gear Box drain plug.
Application: Audi A3, A4, A6; VW Golf IV, LT.

Drive:..... 1/2"☐

KL-0231-1 Jointed Hex Nut hex 17 mm

With 3/8" drive for the gearbox oil control bolt on **VW-Audi**.

Especially applicable on VW Golf II and III and Audi vehicles with **automatic drive**, were the oil control bolt is heavily accessible. The pivot nut may be driven by extension **KL-0100-6**.

Drive:..... 3/8"☐

KL-0122-901 K Oil Service Tool Set

For removal replacement of oil drain plugs.

consists of:

Description	Qty	Description	Qty
T-Bar with 3/8" Drive	1	Drain Plug Socket-Hex 14 mm	1
Drain Plug Socket-Hex 3/8"	1	Drain Plug Socket-Hex 17 mm	1
Drain Plug Socket-Hex 8 mm	1	Drain Plug Socket ■ 5/16"	1
Drain Plug Socket-Hex 9 mm	1	Drain Plug Socket ■ 3/8"	1
Drain Plug Socket-Hex 10 mm	1	Drain Plug Socket ■ 11 mm	1
Drain Plug Socket-Hex 12 mm	1	Drain Plug Socket ■ 13 mm	1
Plastic Case	1		

KL-0122-902 Oil Service Tool ☐ 8 mm / 10 mm

Suitable for e.g. Citroën, Renault, Peugeot etc.

For removal and replacement of oil drain plugs and gear box oil control bolts.

Length:.....220 mm Weight:.....350 g
Socket size ☐ (outer squared):.....8 and 10 mm

KL-0362-803 Oil Dipstick

Suitable for Mercedes engines 103, 104, 111, 119, 120, 137, 603, 604, 605, 606, 611, 612, 613, 626, 913, 943, 963, 984, 985, 997.

Engine oil level manual check. Länge:.....930 mm

KL-0362-804 Oil Dipstick

Suitable for Mercedes engines 112, 113, 646, 647, 648.

Engine oil level manual check. Length:.....930 mm

KL-0362-801 Oil Dipstick

Suitable for Mercedes transmission 722.6.

Transmission oil level manual check. Length:.....1220 mm

KL-0362-802 Oil Dipstick

Suitable for Mercedes transmission 722.7, 716.5.

Transmission oil level manual check. Length:.....920 mm

KL-0362-1 Blanking Plugs Set (Outer thread)

Necessary for radiator repairs to prevent leakage of transmission fluid.
Application: All **Mercedes** cars with automatic gearbox equipped with transmission fluid oil-cooler. Thread:.....M16×1,5

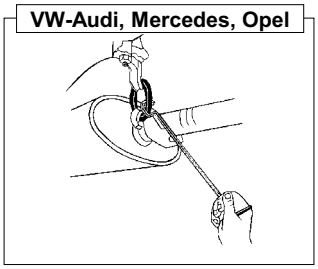
KL-0362-2 Blanking Plugs Set (Inner thread)

As **KL-0362-1** but with inner thread. Thread:.....M16×1,5

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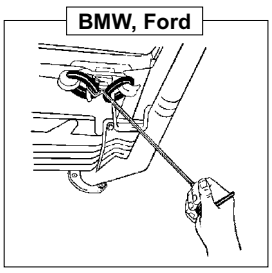
KL-0130-1





KL-0130-2



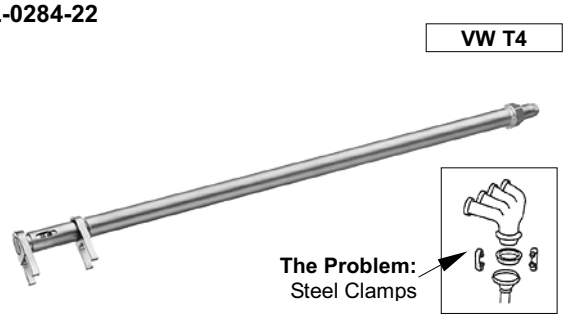


KL-0284-21



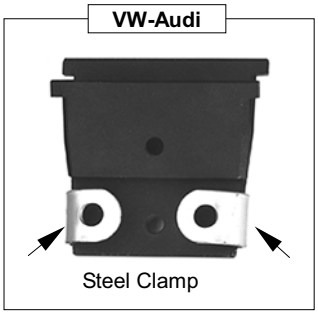


KL-0284-22



KL-0284-3





KL-0130-1 Hook Puller

For quick and easy removal and replacement of the exhaust mounting rubbers.

Application: **VW-Audi, Mercedes, Opel, Jap. vehicles,** etc.

Hook length: .....17 mm
Tool overall length: .....205 mm
Return angle: .....110°
Weight: ..... 90 g

KL-0130-2 Hook Puller

For removal and replacement of exhaust mounting rubbers.

Application: **Ford, BMW,** etc.

Hook length: .....40 mm
Tool overall length: .....200 mm
Return angle: .....100°
Weight: ..... 95 g

KL-0284-21 Exhaust Spring Compressor, short Length 145 mm

For steel clamps of VW Golf, Passat, etc.

For removal and replacement of steel clamps on the flange on exhaust manifolds, as built in on **VW, Audi, Seat and Škoda**.

KL-0284-22 Exhaust Spring Compressor, long Length 790 mm

For steel clamps of VW Transporter T4 Van.

For removal and replacement of steel clamps on the flange on exhaust manifolds, as built in on **VW, Audi, Seat and Škoda**.

The installation of these steel clamps for clutch or exhaust repairs e.g. on **VW T4 (5-cylinder diesel engines)** is only possible under greatest efforts and a job time of 2 - 3 hours. The spring compressor **KL-0284-22** allows the installation of the steel clamp within 3 minutes.

The length of the tool makes it possible to reach, expand, remove and install the steel clamps from the gearbox mountings.

Advantages:

- Increased job time saving (2 hours and more).
- High safety, no jumping away of steel clamps.
- Easy handling of the tool.

KL-0284-3 Wedge Set

For removal and replacement of steel clamps with and without locating hole on the flange on **VW-Audi** exhaust manifolds.

Weight:..... 650 g

Note: Not applicable for VW Transporter T4!

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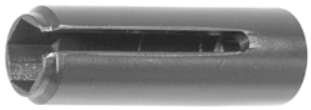
KL-0132-1



KL-0132-8



KL-0132-81

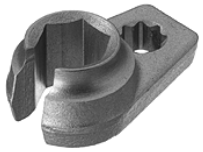




KL-0132-2



KL-0132-6





KL-0132-1 Special Socket 22 mm hex

With ½“ drive for removal and replacement of almost every lambda-probe with disconnectable cable.

Hex: .....22 mm
Drive: .....½“☐-axial
Length:.....100 mm
Weight: .....284 g

KL-0132-8 Special Socket 17 mm hex

With ½“ drive for removal and replacement of lambda-probes on **Nissan, Renault** and other vehicles.

Hex: .....17 mm
Drive: .....½“☐-axial
Length:.....100 mm
Weight: .....260 g

KL-0132-81 Special Socket 22 mm hex

For removing and installing lambda sensors with a deep-seated hexagon. Particularly suitable for the Mercedes M111, for instance.

Hex: .....22 mm
Drive: .....½“☐-axial
Length:..... 110 mm
Weight: .....300 g

KL-0132-2 Angled Socket 22 mm hex

With ½“ drive at 90 degrees for easy removal and replacement of hard to reach lambda-probes.

Hex: .....22 mm
Drive: .....½“☐-axial
Length:.....35 mm
Weight: .....328 g

KL-0132-6 Angled Socket 22 mm hex

As **KL-0132-2** but with: Drive: ½“☐- axial displaced

Application: **VW-Audi, BMW, Mercedes, Ford, Opel/Vauxhall, Peugeot, Citroën, Renault, Seat, Skoda, japanese cars, etc.**

Hex: .....22 mm
Drive: .....½“☐- axial displaced
Length:..... 110 mm
Weight: .....234 g

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KL-0132-7





KL-0132-82



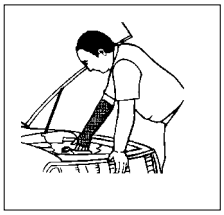
KL-0132-12





KL-0134-10





KL-0132-7 Angled Socket 22 mm hex

As **KL-0132-2** but with **radially** positioned ½"drive as well as a **radially displaced** ½" drive.

KL-0132-82 Angled Socket 22 mm hex

For easy removal and replacement of hard to reach lambda-probes e.g. when the lambda sensor is located directly in front of the splash wall.

Hex: ..... 22 mm
Length: ..... 220 mm
Weight: ..... 320 g

KL-0132-12 Lambda Tool Kit

For lambda-probe mounting threads **M18×1.5**

If damage occurs to the thread of the manifold when exchanging the lambda probe, then it can be re-threaded with the last tap **KL-0132-120** for M18×1.5 threads or re-bored with the special thread cleaner **KL-0132-121** and replaced by thread inserts which are also contained in the tool kit.

Measure: ..... 149 × 123 × 32 mm
Weight: ..... 498 g

consists of:

Part-No.	Description
KL-0132-120	Last Tap M18×1.5
KL-0132-121	Special Screw Tap M20x1.5 for M18×1.5
KL-0132-122	Thread Inserts M20x1.5 M18×1.5 (10 pieces)
-	Wooden Case (empty)

KL-0132-13 Lambda Tool Kit (not ill.)

As **KL-0132-12**, but for **M12×1.5** threads.

Measure: ..... 149 × 123 × 32 mm
Weight: ..... 450 g

consists of:

Part-No.	Description
KL-0132-130	Last Tap M12×1.5
KL-0132-131	Special Screw Tap M14x1.5 for M12×1.5
KL-0132-132	Thread Inserts M14x1.5 M12×1.5 (10 pieces)
-	Wooden Case / plastic case (empty)

KL-0134-10 Arm Protector

Protects Arm from Burns While Working Around the Engine.

Made of durable, heat-resistant Kevlar®. Double wall construction for added heat protection.

Weight: ..... 57 g

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KL-0131-5





Accessories:



KL-0131-5001

KL-0131-5 Chain Pipe Cutter

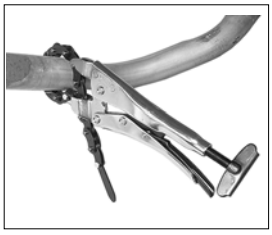
Universal. For quick and clean cutting of exhaust pipes up to 85 mm diameter by only 90° rotation.

Weight: .....490 g

KL-0131-5001 Replacement Chain

KL-0131-51





Accessories:



KL-0131-5101

KL-0131-51 Chain Pipe Cutter

Allows quick and clean cutting of exhaust pipes up to a thickness of 2,5 mm and a diameter of 70 mm.

Also applicable for V2A-steel.

This tool allows easy handling during use and the thumb screw allows adjustment while cutting.

Length:.....250 mm

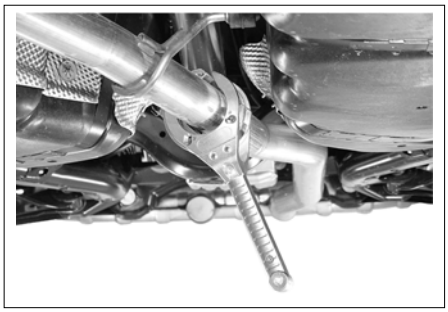
Note:
The addition of another chain allows the cutter to be used on pipes with larger diameters.

KL-0131-5101 Replacement Chain

Length:.....270 mm

224021





224021 Ratchet Pipe Cutter niro
CODE 1600885

Body in zinc-plated pressure-cast aluminium, for pipes 35 - 66 mm Ø, cutting wheel made from high-alloy stainless steel, especially for cutting stainless steel pipes with high service life. Easy handling via ratchet feed with automatic infeed of the cutting wheel with every rotation, even in confined spaces.

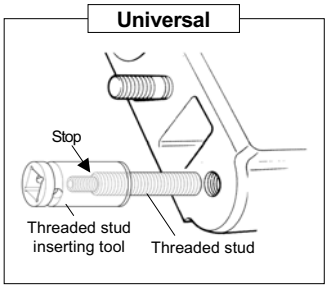
Length:.....275 mm
Weight: .....580 g

224213 Replacement cutting wheel

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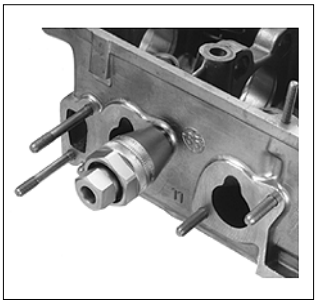
KL-0181-70 K





KL-0181-1





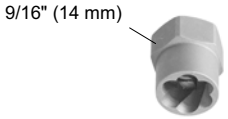
KL-0181-6





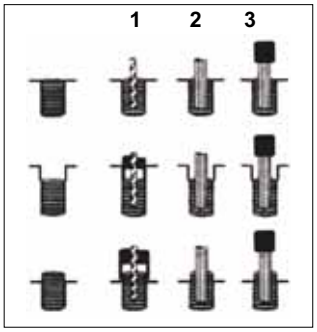
KL-0181-72 K





KL-0181-21 K





KL-0181-70 K Stud Inserting Tool Set in Plastic Case

Applicable for M6, M8, M10, M12, M8x1 and M10x1 threaded studs.

For clean, rapid insertion of threaded studs, for instance during engine repairs.

consists of:

Part No.	Description	Qty.
KL-0181-7006	Threaded stud inserting tool M6	1
KL-0181-7008	Threaded stud inserting tool M8	1
KL-0181-7010	Threaded stud inserting tool M10	1
KL-0181-7012	Threaded stud inserting tool M12	1
KL-0181-7108	Threaded stud inserting tool M8x1	1
KL-0181-7110	Threaded stud inserting tool M10x1	1
KL-4990-1004	Plastic case with foamed material liner	1

Technical Data:

Weight:.....1250 g Drive:.....1/2" □
Length:..... 52 mm
Measure plastic case:..... 275 x 230 x 83 mm

KL-0181-1 Stud Tool

Universal tool for studs with diameter 6 - 12 mm.

Advantages:

• Infinitely adjustable. • Operates in the most confined space. • Ideal also for bolts with rusted or stripped threads. • Also for screws with dimension smaller than specified.

KL-0181-6 Stud Extractor and Inserting Tool Set

For removal and replacement of threaded studs.

Weight:.....1,15 kg Drive outer:..... 21 mm
Drive inner:.....½"□

consists of:

Part No.	Description
KL-0181-51	for Ø 6 mm
KL-0181-52	for Ø 7 mm
KL-0181-53	for Ø 8 mm

Part No.	Description
KL-0181-54	for Ø 10 mm
KL-0181-55	for Ø 12 mm
KL-4940-1004	Plastic case

KL-0181-72 K Screw Extractor Set

To extract screws, nuts and bolts when locating threads or hexagons are damaged.

Due to the special insert design (tapered and special left section) both screws and nuts and bolts can be easily loosen and removed.

Specification (insert dimensions): Drive:.....3/8"
1/4" (6,3mm); 5/16" (8mm); 3/8" (9,5mm); 10mm; 7/16" (11mm); 12mm; 1/2" (12,5mm); 13mm; 9/16" (14mm); 5/8" (16mm); 17mm; 11/16" (17,5mm); 3/4" (19mm)

KL-0181-21 K Screw Drill Set

To remove broken screws and thread bolts - thread M5 - M16.

Procedure: 1. Open the broken bolt (or screw) by drilling (use boring bush if necessary). 2. Drive in the pin. 3. Place the nut on the pin and extract by means of a screw-wrench.

Spare parts/Accessories:

Part No.	Description	Qty.
KL-0181-2112	Drilled pin set for driller Ø: 3,2 mm (5 pcs.)	1
KL-0181-2122	Drilled pin set for driller Ø: 4,8 mm (5 pcs.)	1
KL-0181-2132	Drilled pin set for driller Ø: 6,4 mm (5 pcs.)	1
KL-0181-2142	Drilled pin set for driller Ø: 8,0 mm (5 pcs.)	1
KL-0181-2152	Drilled pin set for driller Ø: 8,8 mm (5 pcs.)	1

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KL-0185-1

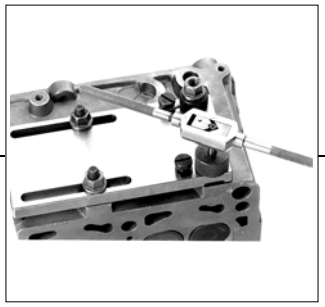
VW-Audi





KL-0185-2



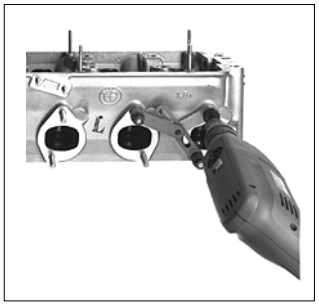


KL-0185-3



KL-0185-5





KL-0185-1 Drilling Guide Set small

For accurate removal of broken manifold studs on **VW and Audi** 4 and 5 cylinder water-cooled engines. (bolt thread M8)

Advantages:

- Great savings in time -approximately 2 hours- because cylinder head has not to be removed.
- Accurate removal of the old stud and cutting of the new thread.
- The drilling guide avoids the risk of damage to the cylinder-head.

With 6,5 mm pre-drilling guide for M8 threads.

In plastic storage case.

Total weight: ..... 1,6 kg

KL-0185-2 Drilling Guide Set middle

As **KL-0185-1** but with 4,0 mm and 8,5 mm pre-drilling guide instead of 6,5 mm. (bolt thread M8)

For drilling and tapping for the use of Heli-Coil inserts.

In plastic storage case.

Total weight: ..... 1,7 kg

KL-0185-3 Drilling Guide Set big

As **KL-0185-2** but also supplied complete with Heli-Coil insertion tool and 25 Heli-Coil thread inserts. (bolt thread M8)

In plastic storage case.

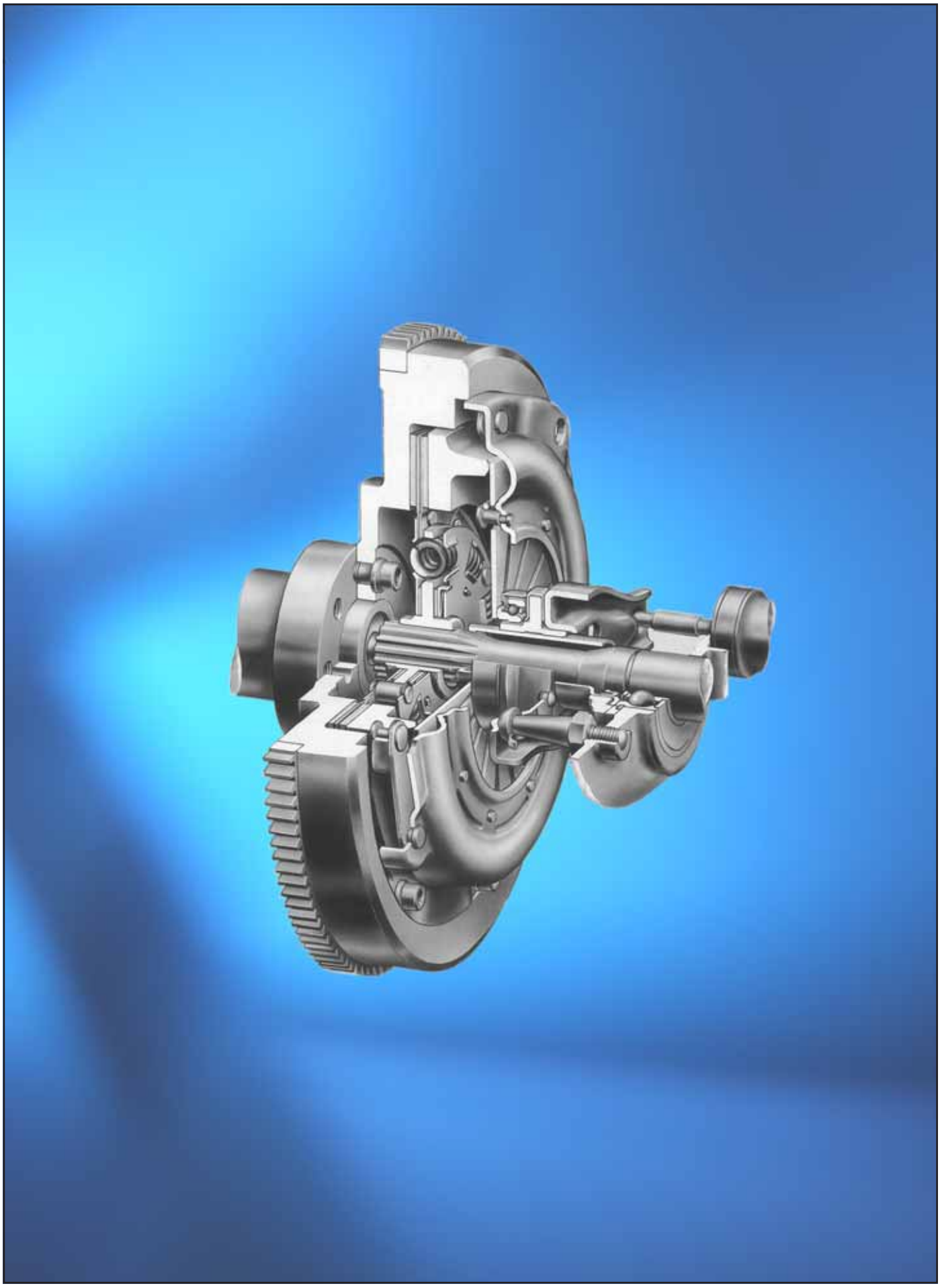
Total weight: ..... 2,3 kg

KL-0185-5 Drilling Guide Set universal

This new universal adjustable drilling guide allows broken or sheared studs especially on cylinder-heads or exhaust manifolds to be quickly and accurately extracted, without the need to remove the cylinder-head. (bolt thread M8 and M10)

Time savings of between 2 and 4 hours can be achieved.

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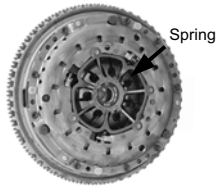
KL-0500-40 K

SAC-clutches
(3 hole pitch)



Application:

Self-Adjusting-Clutch (SAC)



Centering clutch plate



Putting on pressure plate



Pretensioning clutch



Turning back adjuster ring



KL-0500-40 KA

SAC-clutches
(3 / 4 hole pitch)



KL-0500-40 K SAC Clutch Tool Set
in Plastic Case
(German Utility Model)

Applicable for SAC-Clutches (3 hole pitch) e.g. VW-Audi, BMW, Mercedes, Volvo, Opel/Vauxhall, Renault etc.

The tool set **KL-0500-40 K** is necessary to remove and install SAC (Self-Adjusting-Clutch) clutches quickly and expertly.

The SAC-Clutch can be recognized by the small springs of the adjusting ring in the pressure plate. Without this tool set the correct installation of the clutch is almost impossible, as the clutch can be uptight or damaged and, as a consequence, it cannot be disengaged or it „scrapes“. The tool set **KL-0500-40 K** prevents the damaging of the SAC-Clutch during removal and new installation, as well as the twisting of the adjuster ring inside the pressure plate.

Operation:

Before removal, pre-tension the clutch pressure plate by means of the clamping device.

⇒ For this purpose unscrew the three fastening screws and screw three thread bolts in their place. Place the pretension jack on the thread bolts and fix them with the knurled nuts. Screw the compression strut to the clamping device until the diaphragm spring reaches the limit stop. Screw out the remaining fastening screws, unstress the diaphragm spring and the pretension jack and remove the clutch pressure plate.

Centering clutch plate:

⇒ Insert the centering tool and the clutch plate together with a suitable centering dome into the fly wheel.

Putting on pressure plate:

⇒ Put the pressure plate on the fly wheel and install the clutch pretensioner as during removal.
Stress the diaphragm spring up to the limit stop position and screw the relative fastening screws.

Advantage:

⇒ Pretensioning the clutch pressure plate when removing and installing (important as a means of avoiding distortion).

⇒ Centring the clutch plate in relation to the guide bearing or pressure plate.

⇒ Moving back the adjuster ring in conjunction with resetting tool **KL-0500-403**.

Note: The most types of SAC clutches have 3 hole pitch but in some cars e.g. Mercedes A class (from 2004 onwards [W169]) you can find SAC clutches with 4 hole pitch. For those types you need the supplement kit **KL-0500-4014**.

Specification: (Single tools see page 7-03)

Part-No.	Description	Qty.
KL-0500-401	Clutch pretensioner	1
KL-0500-402	Clutch Aligner	1
KL-0500-403	Resetting Tool	1
KL-0500-404	Clutch Mandrel Set	1
KL-0500-4090	Plastic case [empty]	1

KL-0500-40 KA SAC Clutch Tool Set
in Plastic Case
(German Utility Model)

As KL-0500-40 K,
but applicable for SAC-clutches (3 and 4 hole pitch)
e.g. VW-Audi, BMW, Mercedes, Volvo, Opel/Vauxhall, Renault etc.

Specification: (Single tools see page 7-03)

Part-No.	Description	Qty.
KL-0500-401	Clutch pretensioner	1
KL-0500-402	Clutch Aligner	1
KL-0500-403	Resetting Tool	1
KL-0500-404	Clutch Mandrel Set	1
KL-0500-4014	Supplementary set (4 hole pitch)	1
KL-0500-4090	Plastic case	1

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KL-0500-401





Self-Adjusting-Clutch



KL-0500-402



Centring clutch plate



KL-0500-403



Turning back adjuster ring

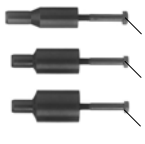


Pretensioning clutch. (3-hole pitch)



KL-0500-404

BMW



KL-0500-11
KL-0500-12
KL-0500-14

Pretensioning clutch. (4-hole pitch)



KL-0500-4014





KL-0500-401 Clutch Compressor

On these self-adjusting clutches it is essential for the pressure plate to be pretensioned with clutch compressor **KL-0500-401** before removal or installation.

Avoiding clutch distortion (clutch judder when driving off).

KL-0500-402 Clutch Aligner

Clutch Aligner **KL-0500-402** locates the clutch plate centrally in relation to the guide bearing or pre-tensioning device before it is installed.

Clamping cone :
Size. 1 15-22 mm; Size. 2 22-28 mm

Mandrel-Ø:
12 mm; 14 mm; 15 mm; 16 mm; 17 mm; 18 mm; 19 mm

KL-0500-403 Resetting Tool

The adjuster ring in the clutch pressure plate can be turned back with resetting tool **KL-0500-403** together with clutch compressor **KL-0500-401**.

KL-0500-404 Clutch Mandrel Set

Suitable for BMW vehicles.

To centre the clutch plate before initial or renewed installation of the pretensioned SAC-Clutch pressure plate.

Specification:

Part-No.	Description	Qty.
KL-0500-11	Clutch Mandrel Ø15/23 mm	1
KL-0500-12	Clutch Mandrel Ø15/28 mm	1
KL-0500-14	Clutch Mandrel Ø15/34 mm	1

KL-0500-4014 Supplement Kit
(4 hole pitch) for KL-0500-40 K

Required for pretensioning the clutch pressure plate when removing and installing SAC-clutches with 4 hole pitch.

7

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KL-0500-3






KL-0500-1



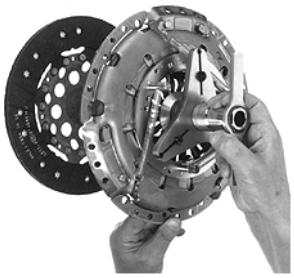

BMW, Volvo



Clutch Pressure Plate with Clamp

KL-0500-10





KL-0500-11 / KL-0500-12



BMW, Volvo



KL-0500-13



KL-0500-19





KL-0500-3 SAC Clutch Tool Set
(German Utility Model)

Application: **BMW and Volvo**.
Guarantees a quick, clean and safe mounting of Self-Adjusting-Clutches.

BMW: E38 (7-series), E39 (5-series), E46 (3-series)
Volvo: C70 2,4 20V Turbo, S70 2,3 Turbo, S70 2,5 20V Turbo, S70 2,5 TDI, V70 2,3 Turbo, V70 2,5 20V Turbo, V70 2,5 TDI

Weight: .....2,5 kg

Part-No.	Description	Qty.
KL-0500-3	**Clutch Tool Set**	**1**
consists of :		
KL-0500-10	Clutch Compressor	1
KL-0500-11	Clutch Aligner Drift Ø 23 mm	1
KL-0500-12	Clutch Aligner Drift Ø 28 mm	1
KL-0500-13	Clutch Aligner	1
KL-0500-19	Clutch Return Tool	1

KL-0500-1 Clutch Aligner Set

Application for SAC-Clutches (Self-Adjusting-Clutch) on BMW and Volvo.

On self-adjusting clutches it is essential for the pressure plate to be pretensioned with Clutch Compressor **KL-0500-10** before removal or installation.

Part No.	Description
KL-0500-1	**Clutch Aligner Set**
consists of:	
KL-0500-10	Clutch Compressor
KL-0500-11	Clutch Mandrel Ø 23 mm (BMW)
KL-0500-12	Clutch Mandrel Ø 28 mm (BMW)

KL-0500-10 Clutch Compressor

It is possible to compress the SAC-Clutch before assembly which avoids the risk of damage. It is essential that the clutch is set to the „new“ position by use of the **KL-0500-19** Clutch Return Tool.
(Very important before assembly)

Weight: .....1,4 kg

KL-0500-11 Clutch Aligner Mandrel Ø 23 mm

For **BMW** vehicles: To centre the clutch plate before mounting the compressed SAC-Clutch. Also for centering new clutches.

For hub -Ø: .....23 mm Weight: .....0,21 kg

KL-0500-12 Clutch Aligner Mandrel Ø 28 mm

As **KL-0500-11**, but:

For hub-Ø: .....28 mm Weight: .....0,28 kg

KL-0500-13 Clutch Aligner

Before assembly, the clutch plate can be centered to the compressed SAC-Clutch by the clutch aligner **KL-0500-13**. Eliminates the need to center over the pilot bearing. Weight: .....0,27 kg

KL-0500-19 Clutch Return Tool

Before compressing the SAC-Clutch with tool **KL-0500-10** the Return Tool **KL-0500-19** is placed on the clutch. During the compressing process there is an automatic return of the cover plate to the „new“ position. Weight: .....0,42 kg

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KL-0069





KL-0069 Clutch Aligner (Universal)

For Clutch-Hub-Ø: 15 - 28 mm.

The mandrel expands in a conical form so that an angle can exist between the axis of the tool body and the crankshaft axis. As a result, the clutch friction plate can ONLY be aligned against the cover-plate.

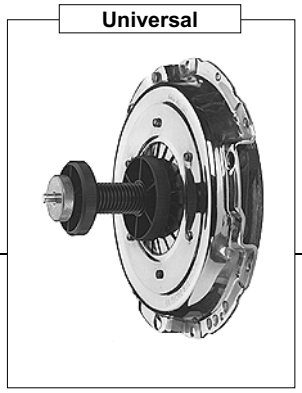
KL-0069-K

KL-0069-K Clutch Aligner (Universal)

As **KL-0069** but supplied in plastic storage case **KL-0069-5030**.

KL-0069-5





KL-0069-5 Clutch Aligner

(Universal) With centering sleeves and plastic storage case.

For Clutch-Hub-Ø: 15 - 28 mm.

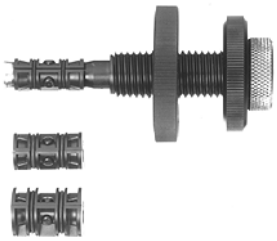
As a result of **parallel expansion technique** it is possible to align the clutch plate to the pilot bearing in the crankshaft flywheel.

Clutch assemblies no longer equipped with a pilot bearing in the crankshaft can be aligned with the cover plate using the new parallel expansion technique.

Advantage:

The expanding segments expand in the same axis of both the tool body and the crankshaft, so that alignment of the clutch plate is possible relative to either flywheel or cover plate.

KL-0069-55



KL-0069-55 Clutch Aligner

(Universal); For Clutch-Hub-Ø: 15 - 28 mm.

As **KL-0069-5** but without Pilots and without plastic storage case.

Accessories:

KL-0069-5010 Pilot Set

KL-0069-5030 Plastic Storage Case (empty)

KL-0201





KL-0201 Clutch Aligner

Allows the clutch disc to be aligned to the flywheel.

Application: VW Golf 1,5 - 1,8 litre.

KL-0202



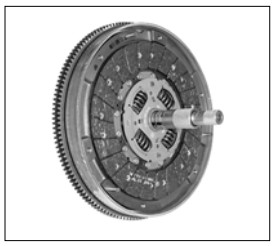
KL-0202 Clutch Aligner

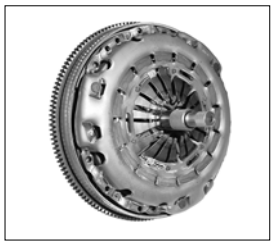
As **KL-0201** but for **VW engines with 16 valves**.

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KL-0069-7

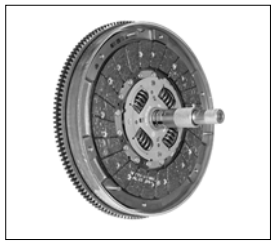






KL-0069-7 R



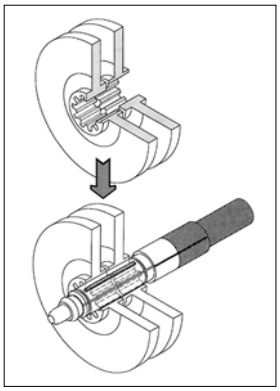




KL-0069-60 K



Universal PKW, LKW



KL-0069-7 Clutch Aligner

Applicable for trucks and small lorries with a hub-Ø of 24 - 36 mm.

Part No.	Description
KL-0069-7	**Clutch Aligner Tool for Transporter**
consists of:	
KL-0069-700	Sleeves (Ø 15, 16, 17, 18, 19, 20 mm)
KL-0069-710	Clutch Aligner Ø 24-36 mm

KL-0069-7 R Clutch Aligner

Suitable for Transporter and small lorries with hub-Ø of 23 - 35 mm, especially Renault.

Part No.	Description
KL-0069-7 R	**Clutch Aligner Tool (Renault)**
consists of:	
KL-0069-700	Sleeves (Ø 15, 16, 17, 18, 19, 20 mm)
KL-0069-710 R	Clutch Aligner Ø 23-35 mm

KL-0069-60 K Clutch Aligner Set

For vehicles with single and double disc clutches

Part No.	Description
KL-0069-60 K	**Clutch Aligner Set**
consists of:	
KL-0069-55	Clutch Aligner for Vehicles
KL-0069-5010	Aligner Case Set (Ø 12, 14, 15, 16, 17, 18, 19 mm)
KL-0069-6	Clutch Aligner for Trucks
KL-0069-6090	Plastic Storage Case (empty)

- **KL-0069-55 + KL-0069-5010 (KL-0069-5)**

Universal Clutch Aligner Set with Aligner Cases.

For hub-Ø: 15 - 28 mm
Because of the parallel expanding technology it is possible to centre the clutch plate to the clutch pressure plate or to the flywheel.

- **KL-0069-6 Clutch Aligner Tool for Trucks**

For trucks with single or double disc clutches (universal)

This tool set allows the correct alignment of **single or double disc** clutches of trucks and tractors to the engine. Mandrel No. 1 is applicable on interior clutch hub-Ø from 36 - 45 mm. Mandrel No. 2 is applicable on interior clutch hub-Ø 42 - 52 mm inside. The clutch aligner kit contains centering sleeves with Ø 20, 25, 27 and 30 mm.

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KL-0043-53



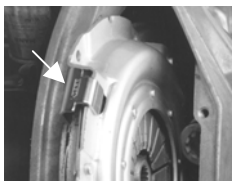
Opel, Saab



KL-0401-2010



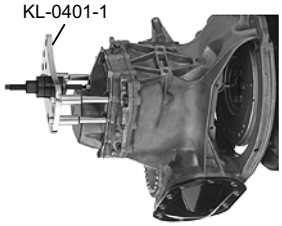
Opel



KL-0410-1

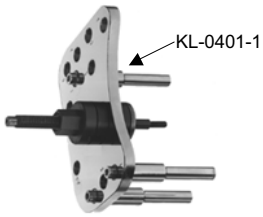


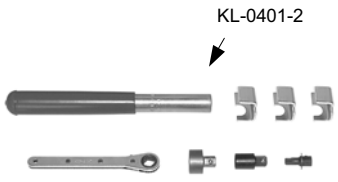
Opel



KL-0401-3

Opel

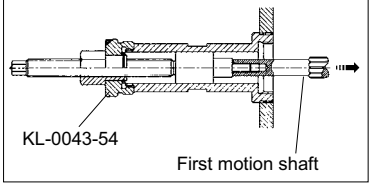




KL-0043-55



Opel



KL-0043-53 Clutch Compressor

For Clutch Pressure Plate on **Opel** and **Saab** passenger cars.

The tool consists of a steel plate with a number of concentric steps which allow the pressure plate to be accurately centered. A compression spindle complete with axial bearing and pressure adaptor is mounted through the centre of the steel plate to apply compression forces without risk of distortion of the spring-fingers.

Advantage: No distortion of the Pressure Plate.

Clutch Pressure Plates should never be compressed in a normal bench-vise or under a Hydraulic Press.

KL-0401-2010 Clamps (3 pcs.)

To fix the pressed Clutch Pressure Plate on **Opel** vehicles .

KL-0410-1 Clutch Tool Set for Opel

consists of:

Part No.	Description
KL-0410-1	**Clutch tool set for Opel**
consists of:	
KL-0401-1	Clutch tool
KL-0402	Pressure adaptor for replacing the spigot bearing
KL-0403	Pressure & guide disc No. 1 (Outer-Ø: 102 mm, inner-Ø: 82 mm)
KL-0404	Pressure & guide disc No. 2 (Outer-Ø: 110 mm, inner-Ø: 88,2 mm)
KL-0405	Pressure & guide disc No. 3 (Outer-Ø: 110 mm, inner-Ø: 91,7 mm)
KL-0406	Crankshaft oil-seal extractor
KL-0407-1	Clutch guide bearing puller
KL-0408	Special drift
KL-0409	Special drift

KL-0401-3 Clutch Tool Set for Opel/Vauxhall

For all **front wheel drive GM Opel cars**.

This tool allows the first motion shaft to be withdrawn, and the spigot bearing and crankshaft oil-seal to be replaced. The tool functions whether the first motion shaft is central or offset in the threaded access hole, or even if there is no hole provided in the gearbox housing - as on the latest models.

Part No.	Description
KL-0401-3	**Clutch Tool Set**
consists of:	
KL-0401-1	Clutch Tool Set
KL-0401-2	**Tool Set**

Part No.	Description		
KL-0401-2	**Tool Set**		
consists of:			
KL-0401-2001	Ratched lever	KL-0401-2004	Hex. insert 17
KL-0401-2002	Operating lever	KL-0401-2005	Multi tooth nut
KL-0401-2003	Hex. insert 11	KL-0401-2010	Clamps (3 pcs.)

KL-0043-55 Clutch Exchange Tool

For **GM Opel** (4 and 5 speed front wheel drive).

This tool allows the first motion shaft to be withdrawn.

Part No.	Description
KL-0043-55	**Clutch Exchange Tool**
consists of:	
KL-0043-54	Clutch exchange tool
KL-0401-2	**Tool Set**
KL-0043-5415	Plastic case

Part No.	Description		
KL-0401-2	**Tool Set**		
consists of:			
KL-0401-2001	Ratched lever	KL-0401-2004	Hex. insert 17
KL-0401-2002	Operating lever	KL-0401-2005	Multi tooth nut
KL-0401-2003	Hex. insert 11	KL-0401-2010	Clamps (3 pcs.)

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KL-0416-4





KL-0416-4 Clutch Assembly Ring (Plastic)

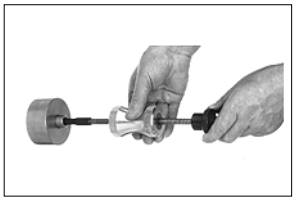
For range: **Ø 110 - 140 mm**

Assembly aid to keep the diaphragm spring compressed - used in conjunction with **KL-0043-53**.

Application: Opel/Vauxhall and Saab passenger cars.

KL-0043-31





KL-0043-31 Bearing Extractor Set (Universal)

With Plastic case. For pilot bearings, generator bearings, etc.

With range from **10 - 20 mm diameter**.

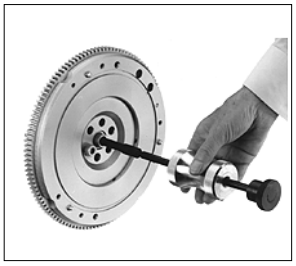
Application: For passenger cars

Specification:

Part No.	Description	Part No.	Description
KL-0043-3101	Spreader 5 mm	KL-0043-3109	Jaws 15 mm
KL-0043-3102	Spreader 6 mm	KL-0043-3110	Jaws 17 mm
KL-0049-1013	Slide Weight	KL-0043-3111	Jaws 20 mm
KL-0043-3107	Jaws 10 mm	KL-0043-3115	Plastic Case (empty)
KL-0043-3108	Jaws 12 mm		

KL-0043-32





KL-0043-32 Bearing Extractor Set (Universal)

(With Plastic case). For pilot bearings, generator bearings, etc.

With range from **10 - 30 mm diameter**.

Application: For passenger cars and trucks (lorries)

The collets are manufactured from a special high grade steel to ensure proper functioning of the tool.

Specification:

Part No.	Description	Part No.	Description
KL-0043-3101	Spreader 5 mm	KL-0043-3110	Jaws 17 mm
KL-0043-3102	Spreader 6 mm	KL-0043-3111	Jaws 20 mm
KL-0049-1013	Slide Weight	KL-0043-3112	Jaws 25 mm
KL-0043-3107	Jaws 10 mm	KL-0043-3113	Jaws 27 mm
KL-0043-3108	Jaws 12 mm	KL-0043-3114	Jaws 30 mm
KL-0043-3109	Jaws 15 mm	KL-0043-3115	Plastic Case (empty)

KL-0175-60





KL-0175-60 Pilot Bearing Extractor Set

For removal of Pilot Bearings, Bushes etc. from blind housings.

Specification:

Part-No.	Description	for Ø [mm]	Thread
KL-0175-300	Support	-	-
KL-0175-601	Jaws	8-12	M10
KL-0175-602	Jaws	12-15	M10
KL-0175-603	Jaws	15-19	M10
KL-0175-604	Jaws	19-25	M10
KL-0175-605	Jaws	25-30	M10
KL-0175-606	Jaws	30-35	M10
KL-0175-6090	Metal Case	-	-

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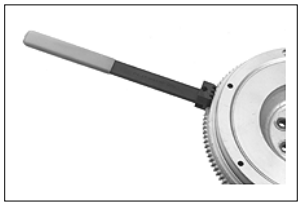
KL-0203-1



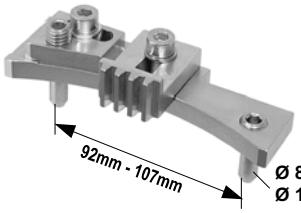


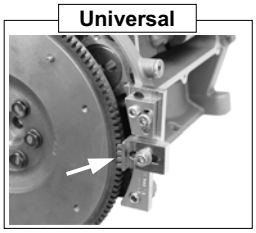
KL-0110





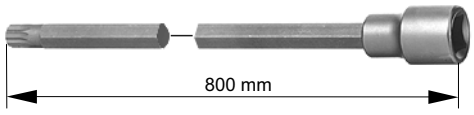
KL-0182-10

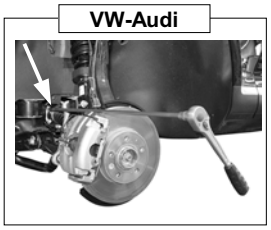




KL-0232-1







KL-0203-1 Clutch Cable Clamp

Applicable on **VW Golf II, III,** etc.

For securing the self-adjusting clutch cable when exchanging the clutch. If omitted, the clutch cable has to be completely renewed.

KL-0110 Flywheel Locking Tool (Universal)

Necessary for dismantling or re-assembling flywheels, clutch pressure plates and belt pulley.

Length: ..... 250 mm
Weight: ..... 0,5 kg

KL-0182-10 Flywheel Locking Tool adjustable (German Utility Model)

To lock the flywheel when the gearbox is dismounted.

Universal application. The tool can be adjusted axially and radially and can be used almost universally by screwing in different stud bolts.

Accessories: KL-0182-1017 - Bolt Ø 10 mm x 35 mm
KL-0182-1018 - Bolt Ø 10 mm x 45 mm

KL-0232-1 Polygon Socket XZN M8

For loosening the screws at the drive shaft quick and easy from outside

→ Increased job time saving.

Not permitted for the use of impact guns.

Suitable for **VW-Audi**, etc.

Length: ..... 800 mm
Drive: ..... ½"□

KL-0232-2 Polygon Socket XZN M10 (not. ill.)

Application as **KL-0232-1.**
Especially for VW Golf IV etc.

Length: ..... 800 mm
Drive: ..... ½"□

KL-0232-3 Polygon Socket XZN M12 (not. ill.)

Application as **KL-0232-1**.
Especially for VW T4, Touareg etc.

Length: ..... 800 mm
Drive: ..... ½"□

KL-0232-4 Polygon Socket XZN M14 (not. ill.)

Application as **KL-0232-1**.
Especially for VW T4, Touareg etc.

Length: ..... 800 mm
Drive: ..... ½"□

7

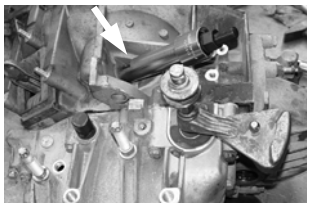
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KL-1600-10

Fiat



Clutch shaft extraction



Pull-action clutch



KL-1600-10 Puller for Fiat Ducato releaser shaft

For use on Fiat Ducato 1994 onwards with pull-action clutch.

For removal of the clutch releaser shaft.

This tool is needed when removing the gearbox, for example in order to change the clutch or for gearbox repairs.

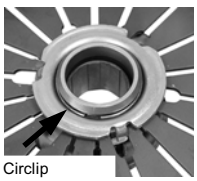
KL-1600-11

Fiat



Removing releaser bearing





Circlip

KL-1600-11 Releaser bearing removal pin

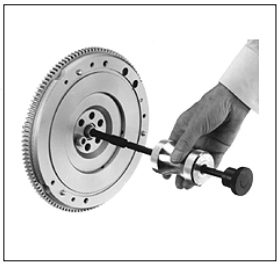
For use on Fiat Ducato 1994 onwards with pull-action clutch.

To remove the releaser bearing from the pressure plate, the Circlip must be pretensioned with removal pin **KL-1600-11**.

KL-0043-32

Universal





KL-0043-32 Bearing Extractor Set (Universal)

(With Plastic case). For pilot bearings, generator bearings, etc.

With range from **10 - 30 mm diameter**.

Application: For passenger cars and trucks (lorries)

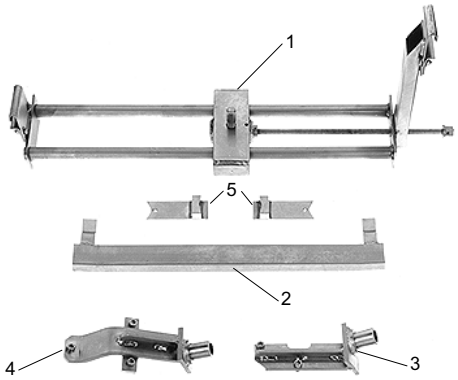
The collets are manufactured from a special high grade steel to ensure proper functioning of the tool.

consists of:

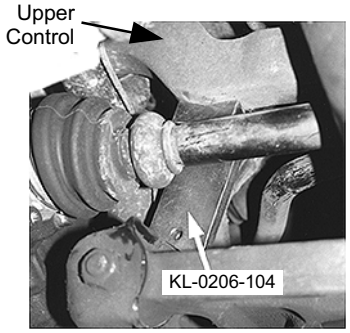
Part No.	Description
KL-0043-3101	Spreader 5 mm
KL-0043-3102	Spreader 6 mm
KL-0043-3103	Slide Weight
KL-0043-3107	Jaws 10 mm
KL-0043-3108	Jaws 12 mm
KL-0043-3109	Jaws 15 mm
KL-0043-3110	Jaws 17 mm
KL-0043-3111	Jaws 20 mm
KL-0043-3112	Jaws 25 mm
KL-0043-3113	Jaws 27 mm
KL-0043-3114	Jaws 30 mm
KL-0043-3115	Plastic Case (empty)

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KL-0206-1

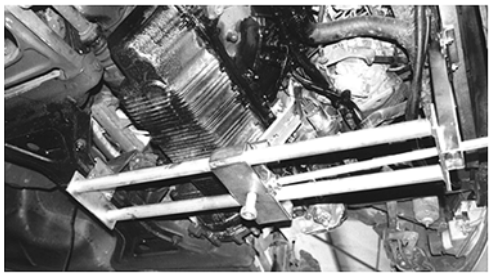


Support of the upper wishbone with retaining wedge



VW T4

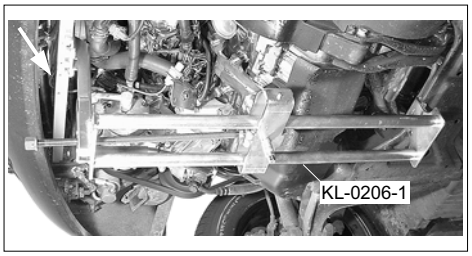
Engine lifter KL-0206-1, mounted



KL-0206-105

VW T4





KL-0284-22



KL-0206-1 Engine Lifter VW T4

For lifting the engine on VW Transporter T4 up to '95.

For the removal and installation of clutch and gearbox on VW T4 it is essential to support the engine with engine lifter **KL-0206-1** and after undoing all mounting bolts, loosening the exhaust flange and removal of all connections the engine must be lifted and pushed to the right front side until the pulley of the crankshaft gets almost in contact with the frame.
Only then it is possible to remove the gearbox or exchange the clutch.

Advantages:

- Easy installation of the engine lifter on the vehicle.
- Support of the upper wishbone with retaining wedges for removal of the drive shaft.
- Support and correct positioning of the engine in every wanted position.
- Easy removal and installation of gearbox and clutch.
- Applicable for 4 and 5 cylinder engines.
- Safety fixture avoids caught in fingers in the tools support.

Notes and Warnings:

- Removal and installation of gearbox and clutch without engine lifter **KL-0206-1** is a dangerous procedure.
- The clutch centre-plate can be aligned to the pilot bearing or against the pressure-plate with the Tool **KL-0069-5** .

Specification:

Pos.	Part No.	Description	Qty.
	KL-0206-1	**Engine Lifter VW T4**	**1**
	consists of:		
1	KL-0206-100	Hub frame	1
2	KL-0206-101	Support	1
3	KL-0206-102	Receiver for 4 cylinder engines	1
4	KL-0206-103	Receiver for 5 cylinder engines	1
5	KL-0206-104	Set of Retaining Wedges (2 pieces)	1

Technical Data:

Length: ..... 870 mm
Hight: ..... 365 mm
Width: ..... 230 mm
Weight: ..... 21,2 kg

KL-0206-105 Support VW T4 1995 onwards

Suitable for: VW Transporter T4 '95 onwards (extended bodywork)

To lift and pull forward the Engine/Gearbox assembly in conjunction with the Lifting Equipment **KL-0206-1**.

KL-0284-22 Exhaust Spring Compressor
(German Utility Model)

For removal and replacement of steel clamps on exhaust manifolds on **VW-Transporter T4 with 5-cylinder diesel engines.**

Advantage:

Easy and quick installation of steel clamps within 3 minutes.

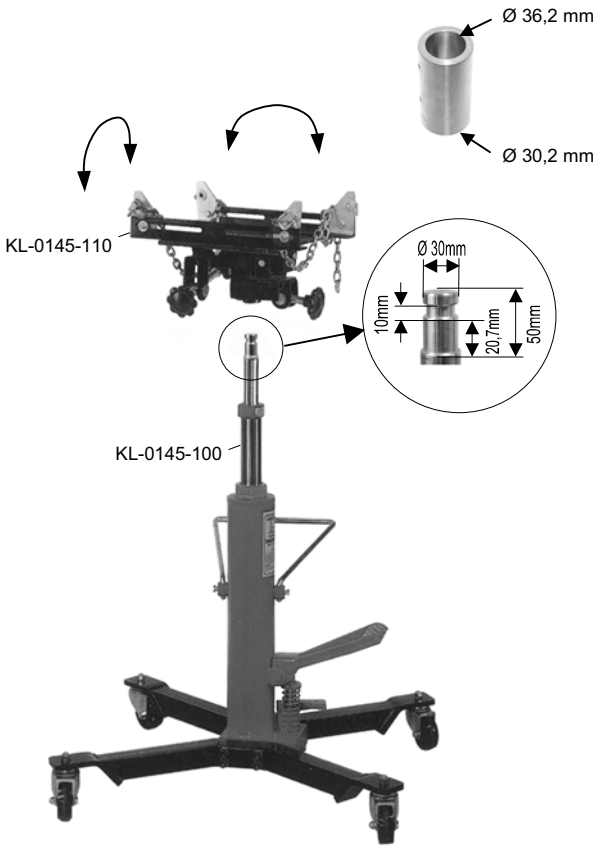
Further Compressors for steel clamps on exhaust manifolds see chapter 6.8 Exhaust System.

Note: Polygon Sockets to loose the drive shaft fastening screws from the differential flange see catalogue, page **7-09**.

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KL-0145-10

Accessories:
KL-0145-101



Weight:	69,5 kg
Load $_{max.}$	500 kg

KL-0145-30



KL-0145-10 Transmission Jack

Consists of

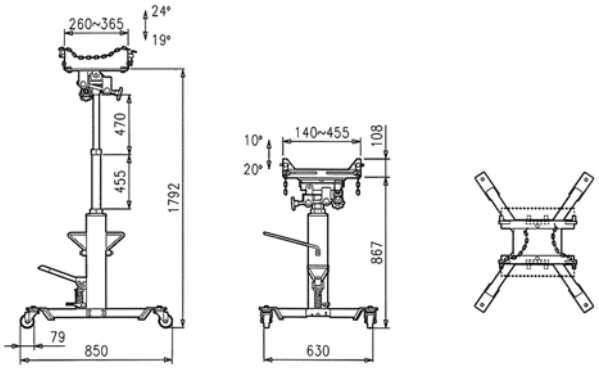
KL-0145-100 Hydraulic Transmissions Jack

KL-0145-110 Adjustable Universal Table

Hydraulic Telescopic Transmission Jack for removal and replacement of assemblies e.g. Motor, Gearbox, Rear Axle, Differential etc. on Passenger Cars and Transporters.

- Adjustable Universal Table with adjustable corner holders and safety-chains for optimal fine adjustment of position.
- Simple and accurate raising and lowering by foot-pedal.
- Stable and easy to move due to large caster-wheels.

Technical Data:



Accessories:

KL-0145-101 Carrier Adaptor VW-Audi

To use the various VW-Audi engine and transmission holders the **KL-0145-101** Carrier Adaptor is required.

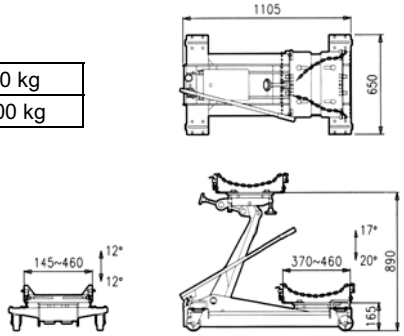
KL-0145-30 Transmission Lift

Hydraulic Transmission Lift to allow removal and replacement of assemblies such as: Engines, Gearboxes, Rear Axles, etc.

- Also useful for changing Clutches on Tractors.
- Adjustable Universal Table with adjustable Corner Pieces and Safety-Chains to allow optimal positioning of the transmission during re-assembly.
- Good stability coupled with easy mobility thanks to large diameter castor wheels.
- Pump handle rotates through 360 degrees to allow easy and precise positioning during lifting.

Technical Data:

Weight:	150 kg
Load $_{max.}$	1500 kg



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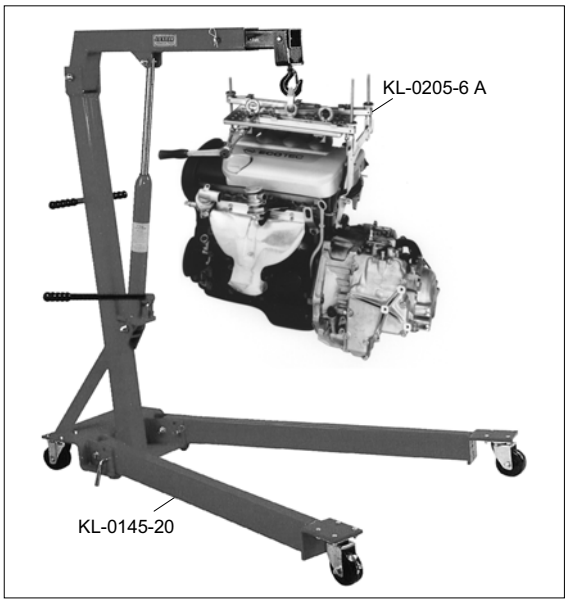
KL-0145-20



Weight:	82 kg
Load $_{max.}$	1000 kg

KL-0205-6 A



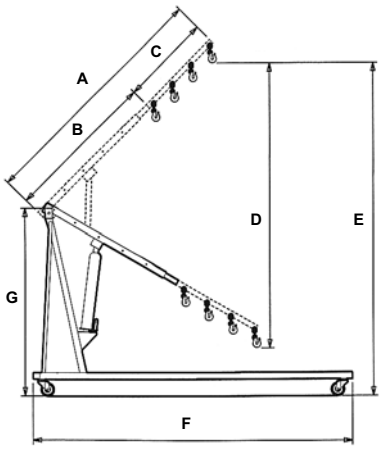


KL-0145-20 Engine Crane

Hydraulic Engine Crane for removal and replacement of Engines, gearboxes, etc.

- Folds ⇒ easy to store when not in use.
- Stable and easy to move due to large caster wheels.
- Lift arm adjusts to 4 lengths.

Technical Data:



A:	1150 mm	**E:**	1800 mm
B:	870 mm	**F:**	1487 mm
C:	280 mm	**G:**	1575 mm
D:	1760 mm		

KL-0205-6 A Universal Lifting Bridge

(Patented)

The **KL-0205-6 A** Lifting Bridge in combination with the **KL-0145-20** Engine crane allows the following operations to be easily and safely performed: removal and replacement of Engine, Gearbox, Differential, Clutch, Engine Mountings, Sub-frame Mountings.

Dimensions: .... 400 × 200 × 12 mm Weight:..... 13,4 kg

Advantages:

- Secure support of the engine no matter what location of the lifting points.
- Firm, locked connections between engine and Lifting Bridge by 3 lifting spindles and 2 distance spindles.
- The multi-hole plate equipped with 3 adjustable support arms offers the user the ability to achieve a correct connection with a wide variety of engines fitted with various lifting points.
- Additional safety is provided by the safety spindle between Lifting Bridge and Motor Bridge.
- The 2 adjustable distance spindles under the multi-hole plate allows control of the centre of gravity of the suspended engine, which in turn ensures exact positioning of the engine either during lifting or lowering.

Note:

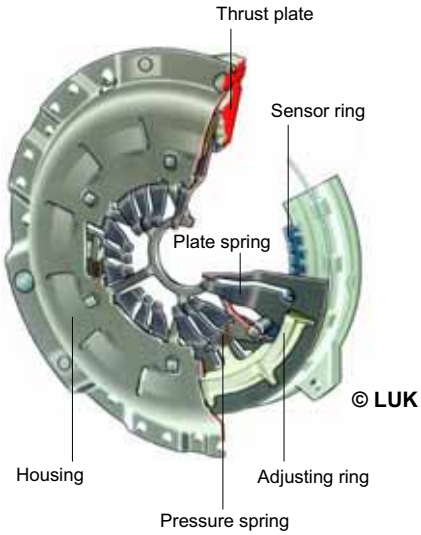
Without the **KL-0205-6 A** Lifting Bridge, precise positioning of the engine during lifting and lowering will not be possible!

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SAC-Clutch

“The new and unknown in the garage“

Assembly:



Advantages:

- constantly low pull-off force during the whole lifetime
- higher drive comfort during the whole lifetime
- higher wear reserve and longer lifetime due to automatic wear compensation
- restriction of the release bearing guide by plate spring stop
- no servomechanism
- user-friendly pull-off systems
- shorter pedal stroke
- same pedal force on the whole range of motors
- new possibilities to reduce clutch diameter
- smaller release bearing guide during lifetime

The necessary Tool:
KL-0500-40 K or rather KL-0500-40 KA



Advantages:

- Designed for quick, safe and precise operation.
- Easy removal and installation of new and already installed components.
- Clutch plate pretensioning during removal and installation. (important to avoid excessive tightness of the clutch)
- Clutch disk centering in the pilot bearing or in the thrust plate.
- Re-assembly of the adjusting ring by using the proper tool **KL-0500-403**.

Mount tool.

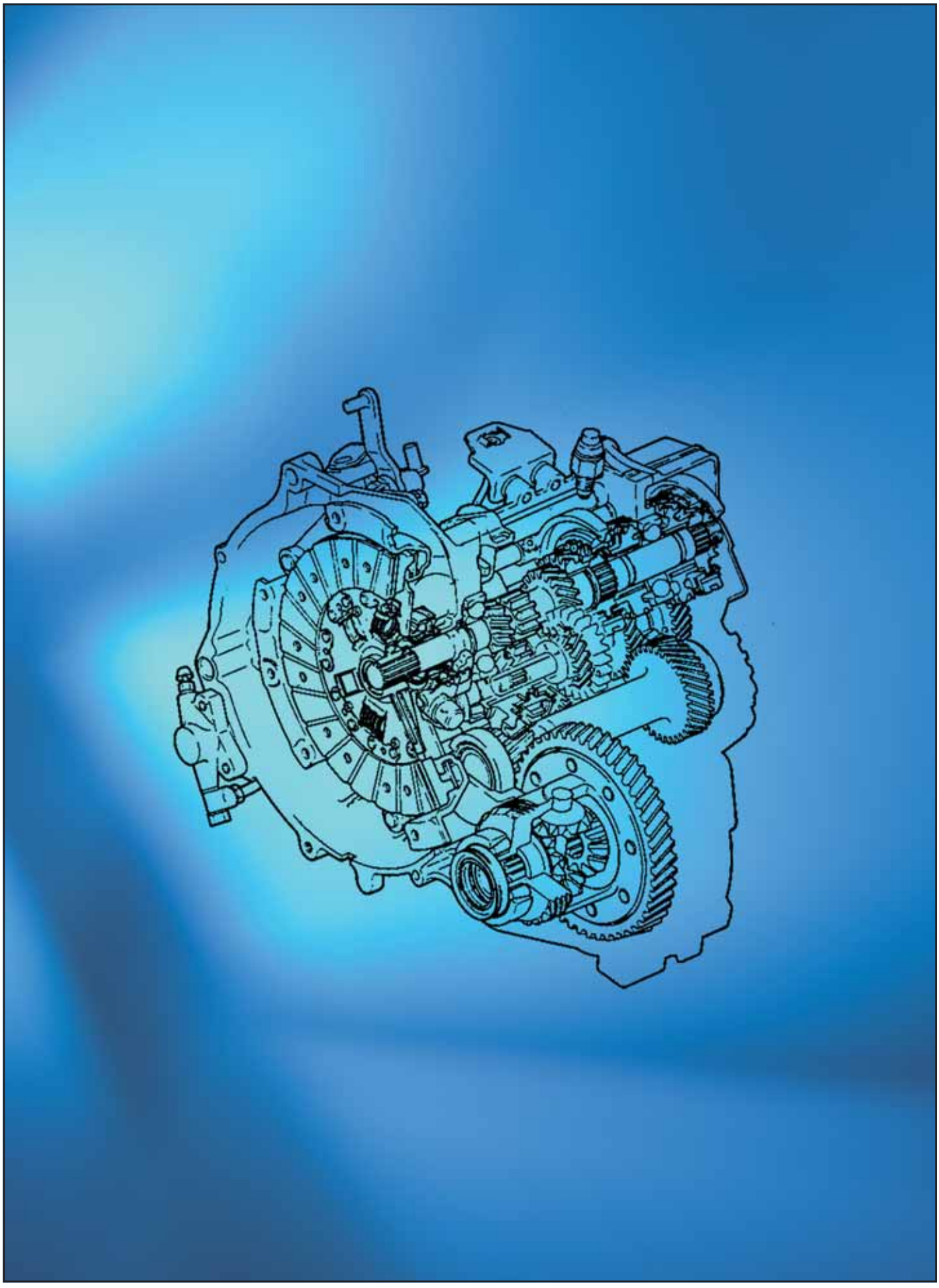


Pretense clutch.



Note:
SAC-Tool Set
KL-0500-40 K / KL-0500-40 KA
see page 7-02 / 7-03

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KL-0315



Mercedes, BMW



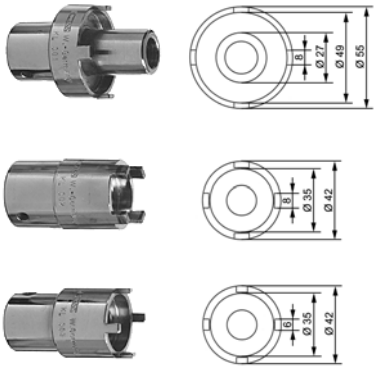
KL-0140-2



Differential



KL-0301 / KL-0302 / KL-0303



Mercedes



KL-0304



Universal

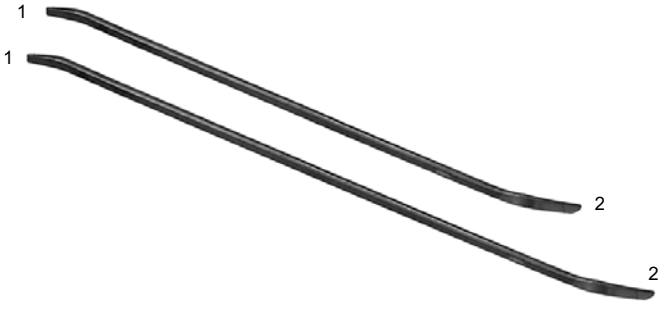


KL-0305



Further Toothed Sockets and Special 12-point Sockets see page 3.5-05

KL-0193-95



KL-0315 Locking Bar

For drive-flange on gearboxes and differentials for **Mercedes** Passenger cars, **BMW, Peugeot, Ford, GM, Chrysler, Volvo**, etc.

KL-0140-2 Meter for Coefficient of Friction

For accurate adjustment of bearing pre-load when repairing Steering Racks, Gearboxes, Differentials, etc.

Measuring range: ..... 0 - 6 N
Drive: ..... ½“☐

KL-0301 Toothed Socket

For **Mercedes W116, W123, W126** Rear Axle Drive Flange.

Drive: ..... 1/2“☐
Length: ..... 80 mm
Weight: ..... 420 g

KL-0302 Toothed Socket

For **Mercedes** Gearbox Flange.

Drive: ..... 1/2“☐
Length: ..... 70 mm
Weight: ..... 440 g

KL-0303 Toothed Socket

For **Mercedes** Differential Flange.

Drive: ..... 1/2“☐
Length: ..... 70 mm
Weight: ..... 370 g

KL-0304 Special 12-point 30 mm Socket

30 mm bihex. For retaining nuts on rear axle, gearbox and differential flanges.

Application: e.g. BMW E36, E46; Citroen Saxo; Ford Galaxy; Mercedes W123, W124, W126, W129, W201, W203, W211; Opel Astra F, Astra G; Renault Scenic, Clio, Kangoo; Toyota Avensis, Picnic and VW Golf III, Golf IV, Lupo, Touareg, T5 etc.

Drive: ..... 1/2“☐
Length: ..... 80 mm
Weight: ..... 350 g

KL-0305 Special 12-point 32 mm Socket

32 mm bihex. For retaining nuts on rear axle, gearbox and differential flanges.

Application: e.g. Fiat Punto; Ford Escort, Mondeo; Mercedes W140; Nissan Almera, Opel Astra H, Vivaro; Subaru Outback etc.

Drive: ..... 1/2“☐
Length: ..... 75 mm
Weight: ..... 450 g

KL-0193-95 Pry Bar Set

These Pry Bars are manufactured from special steel and are particularly suitable for:

- Dismantling stubborn components.
- Positioning and holding components in required position.
- Checking ball joints and silent bearings.
- Spreading clamp-fixtures, etc.

Technical Data:

Length	Blade Width 1 / 2	Weight
730 mm	24 / 33 mm	1600 g
1050 mm	24 / 33 mm	1900 g

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KL-0193-90

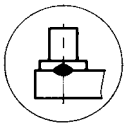


KL-0190-94

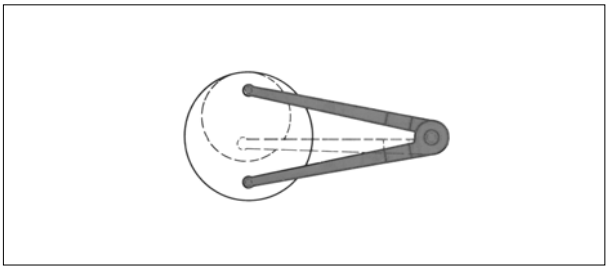


Pin Spanner adjustable, riveted or welded.

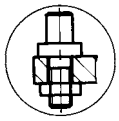
KL-0149-111 - KL-0149-143







KL-0149-211 - KL-0149-223





KL-0193-90 Pry Bar Set

Set consists of four hard wearing pry bars applicable for a number of different jobs.

- **Dismantling stubborn components.**
- **Positioning components.**
- **Holding components in required position.**
- **Spreading clamp-fixtures, etc.**

Part No.	Length	Pry Width
KL-0193-90		
consists of:		
KL-0193-904	24“ (610 mm)	20 mm
KL-0193-903	18“ (460 mm)	20 mm
KL-0193-902	12“ (310 mm)	16 mm
KL-0193-901	8“ (200 mm)	10 mm

KL-0190-94 Pry Bar

Pry Bar made of special steel especially suitable for:

- **Dismantling stubborn components.**
- **Positioning and holding components in required position.**
- **Spreading clamp-fixtures, etc.**

Length: ..... 900 mm
Blade width: ..... 24 mm

Pin Spanner, adjustable

For twin-hole nuts, with riveted or welded pins (not replaceable).

Special steel, gunmetal finish.

Part No.						g
KL-0149-111	7-40	1,5	2,8	115	3	40
KL-0149-112		2	3,6			
KL-0149-113		2,5	4			
KL-0149-121	11-60	3	4	160	4	140
KL-0149-122		4	5			
KL-0149-123		5	6			
KL-0149-131	14-100	5	6	215	6	300
KL-0149-132		6	7			
KL-0149-133		8	8			
KL-0149-141	22-125	8	8	260	6	500
KL-0149-142		10	10			
KL-0149-143		12	12			

For twin-hole nuts, with inter-changeable pins.

Special steel, gunmetal finish.

Part No.						g
KL-0149-211	11-60	3	4	160	4	140
KL-0149-212		4	5			
KL-0149-213		5	6			
KL-0149-221	14-100	5	6	215	6	300
KL-0149-222		6	7			
KL-0149-223		8	8			

8

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KL-0149-311 - KL-0149-342



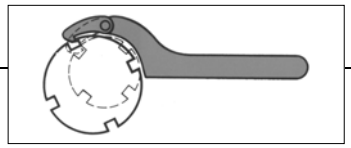
KL-0149-411 - KL-0149-442



KL-0148-311 - KL-0148-382

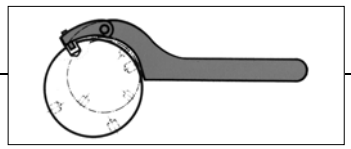


KL-0148-211 - KL-0148-252





KL-0148-511 - KL-0148-515





Adjustable Pin Spanners
Special steel, gunmetal finish

For twin-hole nuts, with welded pins

Part-No.						g
KL-0149-311	18-40	3	4	150	5	90
KL-0149-312		4	5			
KL-0149-321	40-80	4	5	220	6	245
KL-0149-322		5	6			
KL-0149-323		6	7			
KL-0149-331	80-125	6	7	320	8	670
KL-0149-332		7	7,5			
KL-0149-333		8	8			
KL-0149-341	125-200	8	8	450	10	1 750
KL-0149-342		10	10			

For twin-hole nuts, with inter-changeable pins

Part-No.						g
KL-0149-411	18-40	3	4	150	5	90
KL-0149-412		4	5			
KL-0149-421	40-80	4	5	220	6	245
KL-0149-422		5	6			
KL-0149-423		6	7			
KL-0149-431	80-125	6	7	320	8	670
KL-0149-432		7	7,5			
KL-0149-433		8	8			
KL-0149-441	125-200	8	8	450	10	1 750
KL-0149-442		10	10			

Spanners Special steel, gunmetal finish

For Castellated Nuts DIN 1816

Part-No.						g
KL-0148-311	12-14	2	2	110	3	25
KL-0148-312	16-18	2,5	2,5			
KL-0148-321	20-22	2,5	2,5	110	3	40
KL-0148-331	25-28	3	3	136	4	55
KL-0148-332	30-32	4				
KL-0148-341	34-36	4	3,5	170	5	100
KL-0148-342	40-42					
KL-0148-351	45-50	5	4	205	6	165
KL-0148-352	52-55					
KL-0148-361	58-62	5	5	240	7	270
KL-0148-362	68-75	6				
KL-0148-371	80-90	6	6	280	8	410
KL-0148-372	95-100	8				
KL-0148-381	110-115	8	8	335	10	780
KL-0148-382	120-130					

For Castellated Nuts DIN 1816, Jointed

Part No.					g
KL-0148-211	20-35	2,5	3	135	50
KL-0148-212		3	3		
KL-0148-213		4	4		
KL-0148-221	35-60	4	4	175	100
KL-0148-222		5	5		
KL-0148-231	60-90	5	5	250	280
KL-0148-232		6	6		
KL-0148-241	90-155	6	6	290	460
KL-0148-242		8	8		
KL-0148-251	155-230	8	8	420	1 200
KL-0148-252		10	10		

For Castellated DIN 1804, Jointed

Part No.					g
KL-0148-511	20-35	135	9	4	50
KL-0148-512	35-60	175	10,5	5	100
KL-0148-513	60-90	250	12,5	7	280
KL-0148-514	90-155	290	14	8	460
KL-0148-515	155-230	420	17,5	10	1 200

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KL-0152-90 K



Twin-Arm Pullers

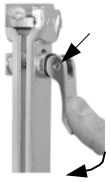


Triple-Arm Pullers



KL-0152-91 K

fast-clamp adjustment





Twin-Arm Puller



Triple-Arm Puller



Puller Set Twin- / Triple-Arm

with fast-clamp lever

For pulling off washers, gearwheels or ball bearings.

These twin- or triple-arm universal pullers with fast clamping hooks can be used as internal or external pullers, simply by repositioning the hooks.

The extremely narrow hook feet are necessary for gearbox repairs if pullers with conventional hooks cannot be inserted for space reasons.

Advantages:

- The hooks always grip in parallel and can be attached to the bridge by means of a fast clamping lever.
- All-purpose tools
- Cost saving ⇒ 1 spindle and either 2 or 4 hooks are not needed.
- The best choice for the professional in rough day-to-day working conditions in industry or for work on cars or trucks.

KL-0152-90 K Puller Set Twin- / Triple-Arm

with fast-clamp lever

Contents:

Part-No.	Description	Qty.
KL-0152-90 K	**Puller Set 2- / 3-Arm**	**1**
consists of:		
KL-0150-0001	Twin-Arm Yoke	1
KL-0151-0001	Triple-Arm Yoke	1
KL-0152-0002	Spindle M14x1,5 x 140 with centre point	1
KL-0152-1103	Clamps - short	3
KL-0152-0005	Fast-clamp lever with pulling bolt	3
KL-0152-1004	Hooks without clamps (a=3,6 mm)	3
KL-4990-1004	Plastic case (275 x 230 x 83 mm)	1

Technical Data:

Part-No	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0152-90 K	100	100	2,5 t.	2,1

KL-0152-91 K Puller Set Twin- / Triple-Arm

with fast-clamp lever

Contents:

Part-No.	Description	Qty.
KL-0152-91 K	**Puller Set 2- / 3-Arm**	**1**
consists of:		
KL-0150-0001	Twin-Arm Yoke	1
KL-0151-0001	Triple-Arm Yoke	1
KL-0152-0002	Spindle M14x1,5 x 140 with centre point	1
KL-0152-1203	Clamps - middle	3
KL-0152-1103	Clamps - long	3
KL-0152-0005	Fast-clamp lever with pulling bolt	6
KL-0152-1004	Hooks without clamps (a=3,6 mm)	3
KL-0152-0004	Hooks without clamps (a=2,0 mm)	3
KL-4990-1007	Plastic case (340 x 275 x 83 mm)	1

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0152-91 K	100	100 / 200	2,5 t. (if a=3,6 mm) 2,0 t. (if a=2,0 mm)	3,6

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KL-0150-Series





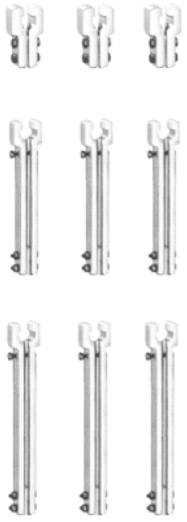
KL-0150-6



KL-0151-9

Pair of Clamps
short - middle - long





KL-0150-Series Twin-Arm Pullers Universal

The universal twin-arm pullers can be adapted to be inner or outer pullers by reversal of the two arms on the yoke.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0150-0*	100	100	2 t.	1,0
KL-0150-1	100	100	3 t.	1,0
KL-0150-1,5	135	100	3 t.	1,0
KL-0150-2	170	150	5 t.	3,0
KL-0150-2,5	220	150	5 t.	3,2
KL-0150-3	260	200	7,5 t.	7,0

*The puller **KL-0150-0** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair).

KL-0150-6 Special Twin-Arm Puller Set

The puller **KL-0150-6** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair)

Part-No.	Description	Qty.
KL-0150-6	**Special Twin-Arm Puller Set**	
consists of:		
KL-0150-1501	Yoke	1
KL-0150-0002	Spindle	1
KL-0150-0003	Pair of Clamps short* (for 1 Hook)	2
KL-0150-1203	Pair of Clamps middle* (for 1 Hook)	2
KL-0150-1253	Pair of Clamps long* (for 1 Hook)	2
KL-0150-0004	Hooks (extremely tight)	6

* with screws for 1 hook.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0150-6	135	100 / 200 / 250	2 t.	3,2

KL-0151-9 Special Triple-Arm Puller Set

The puller **KL-0151-9** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair)

Part-No.	Description	Qty.
KL-0151-9	**Special Triple-Arm Puller Set**	
consists of:		
KL-0151-1501	Yoke	1
KL-0150-0002	Spindle	1
KL-0150-0003	Pair of Clamps short* (for 1 Hook)	3
KL-0150-1203	Pair of Clamps middle* (for 1 Hook)	3
KL-0150-1253	Pair of Clamps long* (for 1 Hook)	3
KL-0150-0004	Hooks (extremely tight)	9

* with screws for 1 hook.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0151-9	135	100 / 200 / 250	2 t.	4,8

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KL-0155-Series



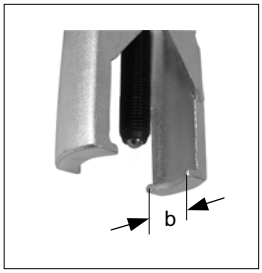


KL-0156-Series



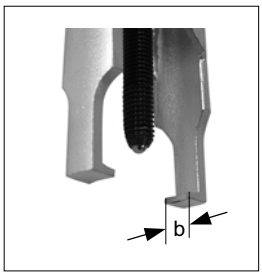
KL-0154-Series





KL-0154-40





KL-0155-Series Twin-Arm Pullers

The pulling force is used to increase the grip on the component being pulled.

Technical Data

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0155-30	90	100	1 t.	0,5
KL-0155-31	130	140	2 t.	0,8
KL-0155-32	200	210	5 t.	2,1

KL-0156-Series Triple-Arm Pullers

Similar in function to **KL-0155-Series**, but with 3 arms.

Technical Data

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0156-30	90	100	2 t.	0,85
KL-0156-31	130	140	3 t.	1,1
KL-0156-32	200	210	8 t.	2,9

KL-0154 Series Twin-Arm Pullers adjustable

With extremely fine pulling lips. The lips are in cruciform and they are extremely thin to allow function in very tight spaces. The scissors construction ensures that the pulled component is gripped with increasing pressure as pulling effort increases.

Technical Data

Part-No.	⇔ [mm]	⇕ [mm]	b [mm]	Load.$_{max}$	Weight [kg]
KL-0154-41	80	85	23	2 t	0,4
KL-0154-42	120	120	31	3,5 t	0,8
KL-0154-43	120	150	31	3,5 t	1,0

Accessories: Extension-Caps for Spindles

KL-0154-4010 Extension 20 mm fitted to KL-0154-1

KL-0154-4011 Extension 30 mm fitted to KL-0154-2 & KL-0154-3

KL-0154-40 Twin-Arm Pullers

For repairs on transmissions (e.g. **Mercedes** etc.)
The narrow and very thin jaws of the puller-arms allows removal of gears and bearings from very limited access positions.

Technical Data:

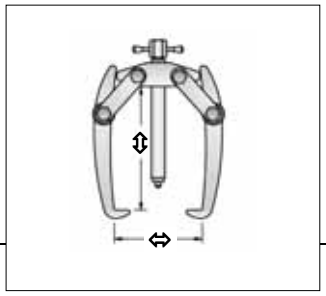
Part-No:.	⇔ [mm]	⇕ [mm]	b [mm]	Load $_{max}$	Weight [kg]
KL-0154-40	80	85	11	1,5 t.	0,4

8

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KL-0157-2



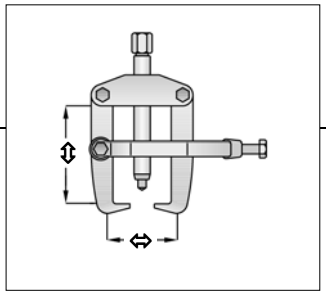


KL-0157-1



KL-0155-Series





KL-0155-9



KL-0157-2 Twin-Arm Battery-terminal puller

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

Technical Data:

Part-No:.	⇔ [mm]	⇳ [mm]	Load max.	Weight [kg]
KL-0157-2	60	40	0,5 t.	0,3

KL-0157-1 Twin-Arm Battery-terminal puller

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

Technical Data:

Part-No	⇔ [mm]	⇳ [mm]	Load max	Weight [kg]
KL-0157-1	60	60	0,5 t.	0,3

KL-0155-Series Twin-Arm Bearing Pullers

The clamping yoke presses the hooks firmly behind the part to be removed and prevents the puller from slipping out of position.

Technical Data:

Part-No.	⇔ [mm]	⇳ [mm]	Load.max.	Weight [kg]
KL-0155-71	90	85	5 t.	1,2
KL-0155-72	90	100	5 t.	1,8
KL-0155-73	150	140	7,5 t.	3,3

KL-0155-9 Twin-Arm Bearing Puller

With clamping bridge and pushing adaptor. Especially for extracting the inner bearing ring at **VW-Audi** cars.

Technical Data:

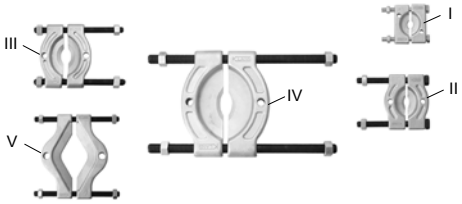
Part-No.	⇔ [mm]	⇳ [mm]	Load.max.	Weight [kg]
KL-0155-9	90	100	1 t.	1,7

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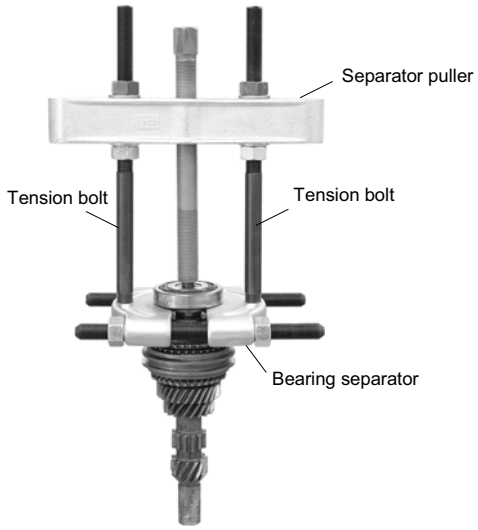
KL-0172-50 K



Separator

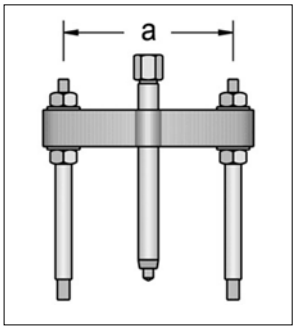


Bearing separator with tension bolts and separator puller.



1.38 Separator puller





KL-0172-50 K Bearing Separator Set

The ideal tool for all workshops!

The bearing separator is especially suitable to remove bearings, inner races and other firmly-seated components.
The wedge-profile and sharpened blades of the puller can be forced below the component to be removed by tightening the clamping bolts
The set consists of 5 pullers and is delivered in a plastic case.

Technical Data:

Pos.	Diameter ranges⇔ [mm]	Thread (for reaction puller)
I	6 - 26 mm	5/16"-18 UNC
II	5 - 55 mm	3/8"-16 UNC
III	9 - 125 mm	5/8"-18 UNF
IV	15 - 230 mm	5/8"-18 UNF
V	49 - 155 mm	5/8"-18 UNF

Accessories

Tension Bolts:

To connect bearing separator with separator puller e.g. GEDORE 1.38.
The tension bolts are screwed into the threaded holes in the bearing separators.

KL-0172-501 Tension Bolts (Pair) M12x1,5 to 5/16"-18 UNC

Technical Data:

Length	Bearing separator thread	Separator puller - thread
200 mm	5/16"-18 UNC	M12x1,5

KL-0172-502 Tension Bolts (Pair) M12x1,5 to3/8"-16 UNC

Technical Data:

Length	Bearing separator thread	Separator puller - thread
200 mm	3/8"-16 UNC	M12x1,5

KL-0172-503 Tension Bolts (Pair) M16x1,5 to 5/8"-18 UNF

Technical Data:

Length	Bearing separator thread	Separator puller - thread
200 mm	5/8"-18 UNF	M16x1,5

1.38 Separator puller

These separator pullers are used together with the bearing separators **KL-0172-50 K**.

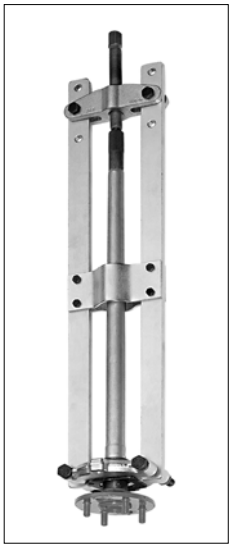
Code	Part No.	a	Size of spindle	Hex.	Weight
8017550	1.38/0	40-120	M14x120	17	1,0 kg
8017710	1.38/2	70-215	G1/2“x210	22	3,8 kg

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KL-0155-39







KL-0175-60





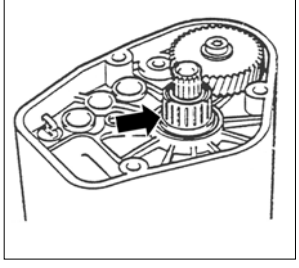
KL-0175-Series



KL-0230-10



VW-Audi



KL-0155-39 Drive shaft bearing puller

Especially for dismounting and mounting drive-shaft bearings.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Weight [kg]
KL-0155-39	45-75	750	14

Procedure for removing bearings:

Place the Bearing Separator firmly and uniformly behind the bearing and align the puller arms parallel with the shaft and spindle. Turn the spindle to pull off the bearing.

Procedure for pulling on bearings:

Place the flat side of the Bearing Separator behind the bearing. Insert the hooks behind the clamping screws of the separating blade. The bearing is then pulled against the shaft flange by tightening the spindle.

KL-0175-60 Pilot Bearing Extractor Set

For removal of Pilot Bearings, Bushes etc. from blind housings.

Contents:

Part-No.	Description	for Ø [mm]	Thread
KL-0175-300	Support	-	-
KL-0175-601	Jaws	8-12	M10
KL-0175-602	Jaws	12-15	M10
KL-0175-603	Jaws	15-19	M10
KL-0175-604	Jaws	19-25	M10
KL-0175-605	Jaws	25-30	M10
KL-0175-606	Jaws	30-35	M10
KL-0175-6090	Metal Case	-	-

KL-0175-Series Reaction Puller

For removal of gear shafts.

KL-0175-300 Reaction Puller for Pilot Bearing Extractor

KL-0175-310 Reaction Puller for Pilot Bearing Extractor

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Adaptor Thread	Weight [kg]
KL-0175-300	60	100	M10	0,6
KL-0175-310	90	135	M14x1,5	1,4

KL-0230-10 Bearing Puller

For VW Transmission 085 (e.g. VW-Golf and VW-Polo).

Weight: ..... 1,6 kg

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KL-0231-2



VW-Audi



Oil Drain Plug

KL-0231-1





VW-Audi



Oil Drain Plug

KL-0362-803 / KL-0362-804

Mercedes



KL-0362-801 / KL-0362-802

Mercedes

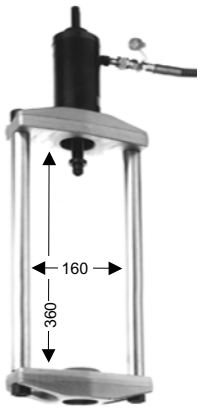


KL-0231-30

VW-Audi
4motion/Quattro



KL-0043-900







KL-0231-2 Special Socket Insert XZN M16,

For removal and replacement of the Gear Box drain plug.
Application: Audi A3, A4, A6; VW Golf IV, LT.

Drive: ..... 1/2"☐

KL-0231-1 Jointed Hex Nut hex 17 mm

With 3/8“ drive for the gearbox oil control bolt on **VW-Audi**.

Especially applicable on VW Golf II and III and Audi vehicles with **automatic drive**, were the oil control bolt is heavily accessible. The pivot nut may be driven by extension **KL-0100-6**. Drive: .....3/8"☐

KL-0362-803 Oil Dipstick

Suitable for Mercedes engines 103, 104, 111, 119, 120, 137, 603, 604, 605, 606, 611, 612, 613, 626, 913, 943, 963, 984, 985, 997.

Engine oil level manual check. Length:.... 930 mm

KL-0362-804 Oil Dipstick

Suitable for Mercedes engines 112, 113, 646, 647, 648.

Engine oil level manual check. Length:.... 930 mm

KL-0362-801 Oil Dipstick

Suitable for Mercedes transmission 722.6.

Transmission oil level manual check. Length:.. 1220 mm

KL-0362-802 Oil Dipstick

Suitable for Mercedes transmission 722.7, 716.5.

Transmission oil level manual check. Length:.... 920 mm

KL-0231-30 Oil Filter Key

Suitable for 4-wheel vehicles VW Bora, Golf IV/V, Sharan, Touran 4motion as well as Audi A3 and TT Quattro etc.

To remove and install the Haldex-clutch oil filter.

Length: .....400 mm Weight:..... 700 g

KL-0043-900 Hydraulic Press (17 t.)

Hydraulic Press **KL-0043-900** may be used in conjunction with Press Tool Sets **KL-0043-8295**, **KL-0043-8595**, **KL-0159-11** or **KL-0159-12** to extract or assemble Shafts, Suspension parts, Bearings, Ball-Joints, Bushes, etc.

Due to portable construction, the Hydraulic Press may also be used on the vehicle. Weight:..... 26,6 kg

Contents:

Part No.	Description
KL-0043-900	**Hydraulic-Press**
consists of:	
KL-0043-902	Press Frame
KL-0040-2500	Hydraulic Cylinder
KL-0040-2510	Spindle
KL-0215-35	Hydraulic hand pump with hose and connector

Technical Data: Press Frame KL-0043-902:

Total Height	430 mm
Working height	360 mm
Total width	220 mm
Working width	160 mm
Depth	100 mm

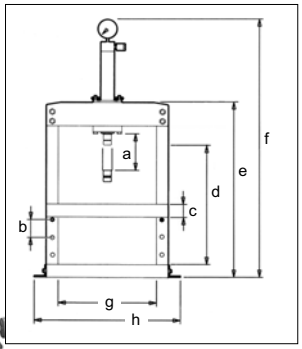
Mount-Ø	30 mm
Mounting thread Cylinder	2¼"-14UNS
Adaptor	2¼"-14UNS to Ø 30 mm
weight	14,2 kg

8

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KL-0145-80





KL-0159-11



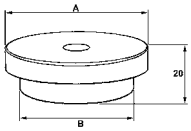
Application



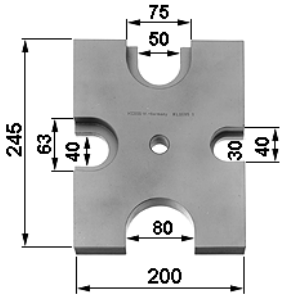
KL-0159-12

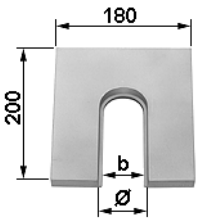


Dimensions

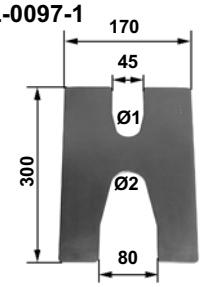


KL-0095-1 / KL-0096-1 / KL-0096-2 / KL-0096-3 / KL-0096-4





KL-0097-1





KL-0145-80 Hydraulic Bench Press 10 t
with Hand Pump

The Hydraulic Bench Press **KL-0145-80** including Press Piece and Stripper Plate - in conjunction with Press Tools **KL-0043-8295, KL-0043–8595** and Press Tools **KL-0159-11** and **KL-0159-12** may be used for dismantling and assembling Drive Shafts, Suspension Bolts, Bearings, Bushes, etc.

Contents: **(KL-0145-80)**

Part No:	Description
KL-0145-801	Hydraulic Bench Press 10 t without Hand Pump
KL-0215-35	Hydraulic Hand pump with hose and coupling

Technical Data:

a	145 mm	c	72 mm	e	715 mm	g	460 mm
b	102 mm	d	490 mm	f	990 mm	h	540 mm

KL-0145-801 Hydraulic Bench Press 10 t

As **KL-0145-80** but without hydraulic hand pump **KL-0215-35.**

Pressure Piece Sets

For extraction or insertion of Bearings, Shafts, Bushes, etc. in conjunction with any Hydraulic Press, or with **KL-0043-82**, **KL-0043-85** or **KL-0043-900**.

KL-0159-11 Pressure Piece Set
Mounting Bore 10 mm
consists of:

Part No.	A [mm]	B [mm]
KL-0159-1101	22	20
KL-0159-1102	24	22
KL-0159-1103	26	24
KL-0159-1104	28	26
KL-0159-1105	30	28
KL-0159-1106	32	30
KL-0159-1107	34	32
KL-0159-1108	36	34
KL-0159-1109	38	36
KL-0159-1110	40	38
KL-0159-1111	42	40
KL-0159-1112	44	42
KL-0159-1113	46	44
KL-0159-1114	48	46
KL-0159-1115	50	48
KL-0159-1120	Pilot Ø10	
KL-0159-1121	Blank Ø10	
KL-0159-1122	Case	

KL-0159-12 Pressure Piece Set
Mounting Bore 20 mm
consists of:

Part No.	A [mm]	B [mm]
KL-0159-1201	52	50
KL-0159-1202	54	52
KL-0159-1203	56	54
KL-0159-1204	58	56
KL-0159-1205	60	58
KL-0159-1206	62	60
KL-0159-1207	64	62
KL-0159-1208	66	64
KL-0159-1209	68	66
KL-0159-1210	70	68
KL-0159-1211	72	70
KL-0159-1212	74	72
KL-0159-1213	76	74
KL-0159-1214	78	76
KL-0159-1215	80	78
KL-0159-1220	Pilot Ø20	
KL-0159-1221	Blank Ø20	
KL-0159-1222	Case	

Stripper Plates

KL-0095-1 Stripper Plate Size 2
For pulling and replacing of bearings at, e.g., rear axles, transmissions and engines (Technical Data see Picture).

KL-0096-1 Stripper Plate Ø 62 mm (b = 55 mm)
For demounting the rear axle bearing on **Opel/Vauxhall** vehicles.

KL-0096-2 Stripper Plate Ø 67 mm (b = 57 mm)
For demounting the rear axle bearing on **Opel/Vauxhall, Ford and Fiat** vehicles

KL-0096-3 Stripper Plate Ø 72 mm (b = 63 mm)
For demounting the rear axle bearing on **Opel/Vauxhall and Ford** vehicles

KL-0096-4 Stripper Plate Ø 52 mm (b = 39 mm)
For removal of the fifth gear in **Mercedes** manual gearboxes.
Height of flange: 4 mm.

KL-0097-1 Stripper Plate thin-walled (4 mm) made from special heat-treated steel Ø1 = 30 mm; Ø2 = 45 mm
Especially useful for very narrow clearances (only 4 mm)

Note: KL-0097-1 Stripper Plate may also be used in conjunction with the **KL-0150-2,5** Puller.

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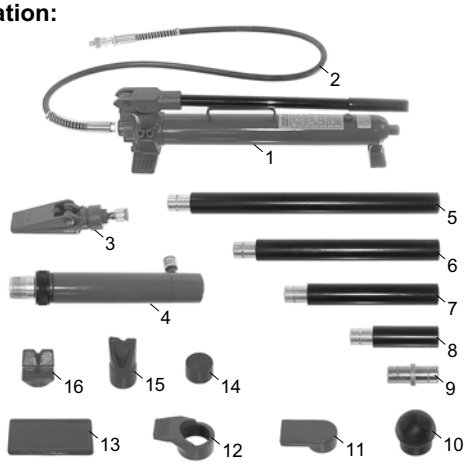


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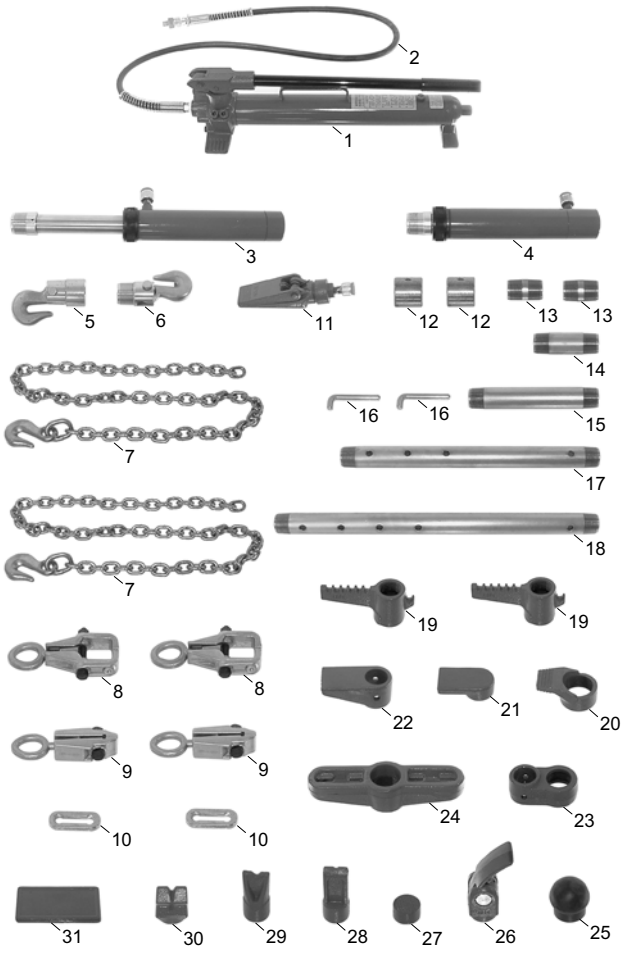
KL-0145-90



Specification:



KL-0145-92



The Hydraulic Set is supplied complete with Storage Trolley.

KL-0145-90 Hydraulic Alignment Set 10 t.

The Hydraulic Press Set **KL-0145-90** allows Pressing and Spreading functions.

Contents:

Part No.	Description	Qty.
1	Hydraulic Hand Pump	1
2	Hydraulic Hose and Connector	1
3	Spreader	1
4	Press cylinder 10 t.	1
5	Extension Tube 530 mm	1
6	Extension Tube 400 mm	1
7	Extension Tube 300 mm	1
8	Extension Tube 170 mm	1
9	Extension Piece	1
10	Plastic Stop Ø 83 mm	1
11	Offset arm for Piston	1
12	Offset arm for Cylinder	1
13	Foot plate	1
14	Press piece flat	1
15	Press piece small prismatic	1
16	Press piece prismatic	1
	Plastic Case	1

KL-0145-92 Hydraulic Alignment Set 10 t.

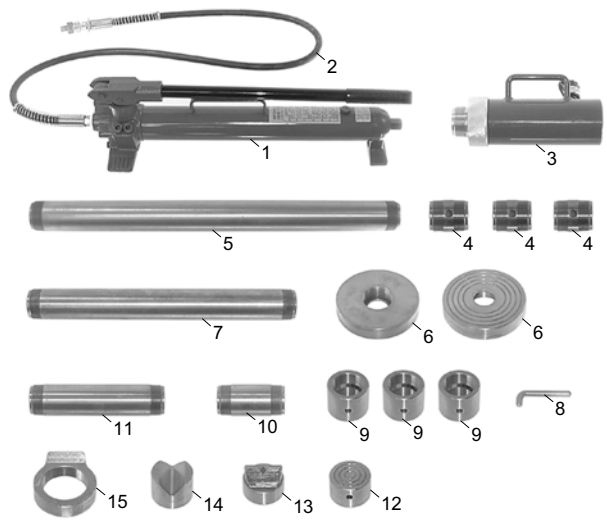
The Hydraulic Alignment Set **KL-0145-92** allows Press, Pull, Clamp and Spread functions.

Contents:

Part No.	Description	Qty.
1	2 Stage Hydraulic Hand Pump	1
2	Hydraulic Hose and Connector	1
3	Pull cylinder 5 t.	1
4	Press cylinder 10 t.	1
5	Pulling Hooks	1
6	Pulling Hooks	1
7	Pull Chain with one Hook	2
8	Pull Clamp high	2
9	Pull Clamp flat	2
10	Pull Ring	2
11	Spreader	1
12	Threaded Adapter	2
13	Threaded Connector	2
14	Connector Tube 127 mm	1
15	Connector Tube 254 mm	1
16	Pins	2
17	Extension Tube 508 mm	1
18	Extension Tube 635 mm	1
19	Offset arm with Raster	2
20	Offset arm for Cylinder	1
21	Offset arm for Piston	1
22	Offset arm for extension tube	1
23	Adapter for extension tube	1
24	Chain Yoke	1
25	Plastic Stop Ø 83 mm	1
26	Press piece adjustable	1
27	Press piece flat	1
28	Press piece small prismatic	1
29	Press piece conical	1
30	Press piece prismatic	1
31	Foot plate	1
	Trolley	1

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KL-0145-91



The Hydraulic Set is supplied complete with Storage Trolley.

KL-0049-31 with Adaptor 2¼“ UNS on M18



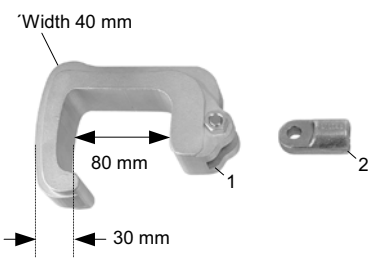
KL-0049-3020

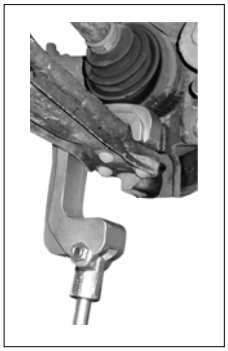


KL-0049-350



KL-0049-360





KL-0145-91 Hydraulic Alignment Set 20 t.

The Hydraulic Press Set **KL-0145-91** allows Pressing function.

Contents (KL-0145-91)**:**

Part No.	Description	Qty.
1	2 Stage Hydraulic Hand Pump	1
2	Hydraulic Hose and Connector	1
3	Pull cylinder 20 t.	1
4	Threaded Connector	3
5	Extension Tube 710 mm	1
6	Press disc	2
7	Extension Tube 510 mm	1
8	Pins	1
9	Threaded Adapter	3
10	Connector Tube 130 mm	1
11	Connector Tube 255 mm	1
12	Press piece flat	1
13	Press piece conical	1
14	Press piece prismatic	1
15	Offset arm for Cylinder	1
	Trolley (not ill.)	1

KL-0049-31 Slide Hammer

For axles, drive shafts, wheel hubs, brake discs and brake drums, etc. inclusive Adaptor 2¼“ UNS to M18.

Slide weight:..... 4,8 kg Length: ..... 690 mm

KL-0049-3020 Hook

For the Slide Hammer **KL-0049-31**.

KL-0049-350 Clip with Hook and Joint

To pull body panels together with the slide hammer puller **KL-0049-31.**

The forged clip **KL-0049-3500** has an automatic self stress on on the cone. Ist field of application is a pulling force up to 20 t.

The forged hook **KL-0049-3501** made of hardened and tempered steel is suitable to any chain end of any make. When the chain is moved or remounted, it does not twist but it runs back parallel to itself. The clip **KL-0049-3500** is connected to slide hammer puller **KL-0049-31** by means of the hook **KL-0049-3501** and of the joint **KL-0049-3502.**

Contents (KL-0049-350)**:**

Pos Nr.	Part no.	Description	Qty.
1	KL-0049-3500	Clip	1
2	KL-0049-3501	Hook	1
3	KL-0049-3502	Joint M18	1

KL-0049-360 Jointed Latch Hook

It is specially suitable to dismantle the control arm from the ball joint clamping hole in conjunction with the slide hammer **KL-0049-31**. Due to their profiled shape, hooks can be fixed very close to the ball joint.

Contents (KL-0049-360)**:**

Pos Nr.	Part no.	Description	Qty.
1	KL-0049-3600	Latch Hook without Joint	1
2	KL-0049-3502	Joint M18	1

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KL-0198-90 KB



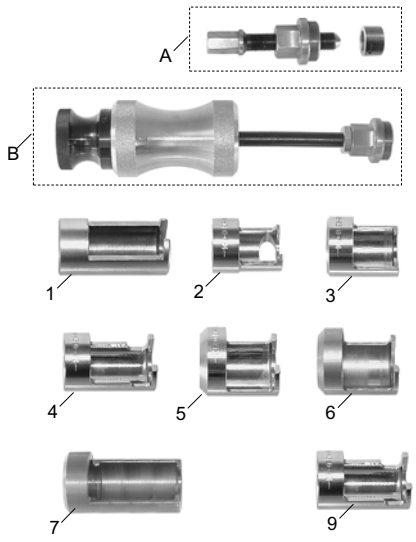
Wiper arm removal with the Presure Spindle.



Wiper arm removal with the Slide Hammer.



Specification:



KL-0198-90 KB Wiper-Arm Puller Set
(German Utility Model)

Suitable for: VW-Audi, BMW, Citroën Ford, Mercedes, Opel/Vauxhall, Peugeot, Renault etc.

To remove bolted Windscreen Wiper Arms, especially for those which have become rusted or corroded onto the drive-shaft.

Stubborn and deep-seated Wiper Arms may be quickly and easily removed using the **KL-0198-90 KB** Puller Set.

Wiper Arms with integrated Screen-Wash nozzles - e.g. VW-Audi, BMW etc. on the rear window - can be easily removed by using the Slide hammer included in the Set.

Wiper Arms with central holes may be removed by using the Pressure Spindle. Those Wiper Arms with no central hole require the Pressure Bolt to be used with the Pressure Adaptor supplied.

Contents:

Pos.	Part No.	Description	Qty.
	KL-0198-90 KB	**Wiper Arm Puller Set**	**1**
	consists of:		
A	KL-0198-9008	Pressure Spindle	1
B	KL-0198-9009	Slide Hammer	1
1	KL-0198-901	Fork 1 (BMW, Citroën, Peugeot, VW etc.)	1
2	KL-0198-902	Fork 2 (Citroën, Peugeot etc.)	1
3	KL-0198-903	Fork 3 (VW-Audi, Citroën, Ford, Mercedes etc.)	1
4	KL-0198-904	Fork 4 (VW-Audi, BMW, Citroën, Mercedes, Opel, Peugeot, Renault etc.)	1
5	KL-0198-905	Fork 5 (Audi, BMW 1series, Citroën, Ford, Mercedes, Peugeot 307, Renault, VW Touareg, T5 etc.)	1
6	KL-0198-906	Fork 6 (VW-Audi, BMW, Ford etc.)	1
7	KL-0198-907	Fork 7 (BMW etc.)	1
9	KL-0198-909	Fork 9 (Golf V, T5 rear window wiper, Skoda Superb, Peugeot 206, 307, 806 etc.)	1
	KL-0198-9090	Plastic Storage Case (empty)	1

Wiper Arm Puller Set:

KL-0198-921 **Puller Set BMW**
(consists of: Pos. 1, 4, 6, 7, A)
Suitable for: **3 series Compact (E36)** from '94, **Z3**, **3 series (E46)** 1999 onwards, **5 series (E39)** 1996 onwards

KL-0198-922 **Puller Set Citroën**
(consists of: Pos. 1, 2, 3, 4, 5, A, B)
Suitable for: **Berlingo, C5**, **Evasion**, **Saxo**, **Xsara**, **Xsara Picasso**

KL-0198-923 A **Puller Set VW-Audi, Ford**
(consists of: Pos. 1, 3, 4, 5, 6, 9, A, B)
Suitable for:
Audi **80** (from 1986 - '96), **A3**, **A4** (up to 2001), **A4** (2001 onwards), **A6** (from 1997 - '01)
Ford **Fiesta** (from 1995), **Focus**, **Ka**, **Mondeo** (up to 2001), **Mondeo** (from 2001), **Galaxy** (up to 2000), **Galaxy** (up to 2000)
VW **Polo** (up to '99),**Polo** ('99 onwards); **Lupo**, **Golf III**, **Golf IV, Golf V**, **Sharan Sharan** (2000 onwards), **Passat** (up to 2000), **Passat** (2001 onwards), **New Beetle**

KL-0198-924 **Puller Set Mercedes**
(consists of: Pos. 3, 4, 5, A)
Suitable for: **A Class**, **C Class** (W203), **Vito/ V Class**, **M Class**, **E Class** (W210)

KL-0198-925 **Puller Set Opel/Vauxhall**
(consists of: Pos. 1, 4, A)
Suitable for: **Corsa B**, **Corsa C**, **Astra F**, **Astra G**, **Astra G Kombi**, **Zafira**

KL-0198-926 **Puller Set Peugeot**
(consists of: Pos. 2, 4, 5, A)
Suitable for: **106**, **206**, **306**, **306 Cabrio**, **307**, **406**, **605**, **Partner**

KL-0198-927 **Puller Set Renault**
(consists of: Pos. 4, 5, A)
Suitable for: **Clio** ('98 onwards), **Espace** ('96 onwards), **Kangoo**, **Laguna**, **Laguna Estate**, **Mégane** ('99 onwards), **Mégane Limousine**, **Scénic**, **Twingo**

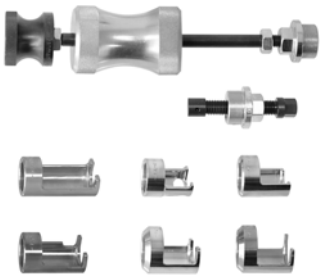
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KL-0198-923 KA



Wiper arm removal with the Slide Hammer.



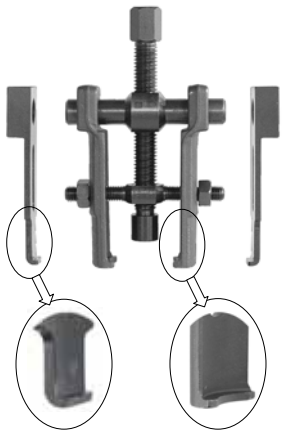


Wiper arm removal with the Presure Spindle..



The set will be delivered in a plastic case.

KL-0198-80

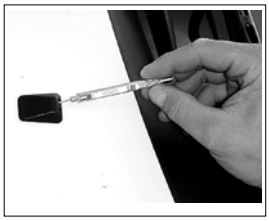


Straight tips Rounded tips



KL-0126-33





KL-0198-923 KA Wiper-Arm Puller Set
(German Utility Model)

Suitable for: VW-Audi, Ford etc.

To remove bolted Windscreen Wiper Arms, especially for those which have become rusted or corroded onto the drive-shaft.

Stubborn and deep-seated Wiper Arms may be quickly and easily removed using the **KL-0198-923 KA** Puller Set.

Wiper Arms with integrated Screen-Wash nozzles on the rear window - can be easily removed by using the Slide hammer included in the Set.

Wiper Arms with central holes may be removed by using the Pressure Spindle. Those Wiper Arms with no central hole require the Pressure Bolt to be used with the Pressure Adaptor supplied.

Contents:

Part No.	Description	Qty.
KL-0198-923 KA	**Wiper Arm Puller Set**	**1**
consists of:		
KL-0198-9008	Pressure Spindle	1
KL-0198-9009	Slide Hammer	1
KL-0198-901	Fork 1	1
KL-0198-903	Fork 3	1
KL-0198-904	Fork 4	1
KL-0198-905	Fork 5	1
KL-0198-906	Fork 6	1
KL-0198-909	Fork 9	1
KL-0198-9090	Plastic Storage Case (empty)	1

Note: By using further forks also for **BMW, Mercedes, Peugeot etc**. suitable.

KL-0198-80 Wiper Arm Puller

Universally applicable

Its special shape, the two different hook couples (with extra thin straight tips and rounded tips) and the adjusting nut make this puller almost universal in its range of application.

Technical Data:

Drive: hex.14
Hook width (straight tips): ..... 15 mm
Hook width (straight tips): ..... 2,3 mm
Hook width (rounded tips): ..... 26,5 mm
Hook thickness (rounded tips): ..... 2,6 mm
Pulling-Ø max: ..... 45 mm
Weight: ..... 560 g

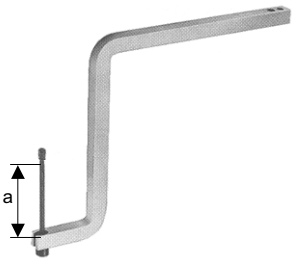
KL-0126-33 Screen Washer Jet Needle

The Screen-Washer Jet tool allows cleaning of blocked jets and accurate adjustment of spray-direction of all screen-washer jets.

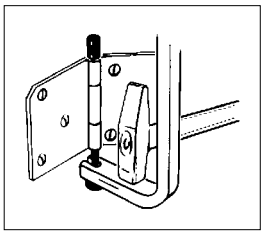
Weight: ..... 40 g

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KL-0190-6



Opel, Ford, Peugeot, Citroën



Spare Parts:



KL-0270-3 B



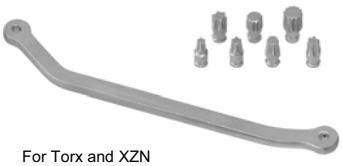
For Torx and XZN

VW-Audi, Mercedes





KL-0270-31 B



For Torx and XZN

VW-Audi, Mercedes

Special body grip wrenches

137 K1





137 K2





137 K3





Note:
Further pliers and tools see GEDORE catalog.

KL-0190-6 Slide Yoke

For removal and replacement of door hinge pins.
Application: **Opel/Vauxhall, Ford, Peugeot, Citroën**.

Consists of:

KL-0190-60 Slide Yoke
Without pulling bolts.

KL-0190-61 Pulling Bolts for Ø 5 mm (10 Pcs.)
Application: **Opel/Vauxhall, Ford, Peugeot, Citroën**. etc.
Length: 103 mm a: 72 mm

KL-0190-62 Pulling Bolts for Ø 4 mm (10 Pcs.)
Application: **Ford, Citroën,** etc.
Length: 118 mm a: 87,5 mm

KL-0190-63 Pulling Bolts for Ø 5 mm (10 Pcs.)
Application: **Renault,** etc.
Length: 123 mm a: 91 mm

KL-0270-3 B Wrench with 7 Bit Inserts

Suitable for *Door Hinge Bolts*
e.g. Audi 97 onwards; Renault Safrane / Laguna; Seat Arosa / Cordoba / Ibiza; VW Golf III / Golf IV / Passat 97 onwards / Polo / Vento; Škoda etc.

To quickly and easily loosen and tighten the bolts in door hinges.

Suitable for *Mercedes Toe Adjustment*
e.g. 190 Series (W201), C-Class (W202), C-Class (W203), 200 - 300 E (W124), E-Class (W210), S-Class (W220)

To adjust the Toe on the rear axle. Due to its special form, this tool allows easy and precise adjustments to the inaccessible adjustment bolts.

Technical Data:
Size 5/16“-Drive Bit-Inserts:
T30, T40, T45, T50, XZN-8, XZN-10, XZN-12
Length: 310 mm Weight: 430 g Bit-Drive: 5/16“

Accessories: KL-0270-303 Bit-Inserts Set 7 pcs.
Consists of 5/16“ Drive Bit-Inserts size:
T30, T40, T45, T50, XZN-M8, XZN-M10, XZN-M12

KL-0270-31 B Wrench with 7 Bit Inserts

As **KL-0270-3B**, however in forged design.

Suitable for *Mercedes Toe Adjustment* e.g.
190 Series (W201), C-Class (W202), C-Class (W203), 200 - 300 E (W124), E-Class (W210), S-Class (W220)

Due to its special form, this tool allows easy and precise adjustments to the inaccessible adjustment bolts.

Technical Data:
Size 5/16“Drive Bit-Inserts:
T30, T40, T45, T50, XZN-8, XZN-10, XZN-12
Length: 320 mm Weight: 520 g Bit-Drive: 5/16“

Accessories: KL-0270-303 Bit-Inserts Set 7 pcs.
Consists of 5/16” Bit-Inserts size:
T30, T40, T45, T50, XZN-M8, XZN-M10, XZN-M12

Special body grip wrenches

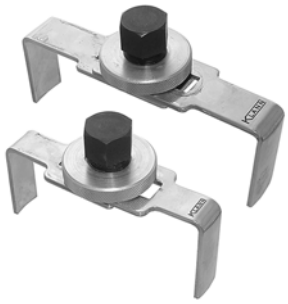
137 K1 Special body grip wrench
With adjusting screw and dip-insulated release lever (blue).

137 K2 Special body grip wrench
With adjusting screw and dip-insulated release lever (blue). Special jaws with domed clamping surfaces, 25 x 20 mm at top, 7 x 7 mm at bottom.

137 K3 Special body grip wrench
With adjusting screw and dip-insulated release lever (blue). Special jaws with flat clamping surfaces, 40 x 14 mm at top, 40 x 35 mm at bottom.

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KL-0120-80



Universal



Hinweis: Tools for the fuel system see chapter 6.2.

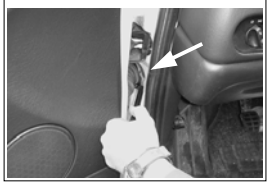
KL-0126-205



KL-0272-10



VW, Ford, Seat



KL-0270-2

VW-Audi





KL-0271-1

VW-Audi



KL-4305-6225

VW





KL-0120-80 Tank Sender Spanner Set
adjustable

Universal application.

For removing and replacing the Plastic Retaining Ring on the Sender Unit on Fuel Tanks.

Consists of:

KL-0120-801 Tank Sender Spanner Ø80 mm - Ø120 mm

Range:.....80 - 120 mm
Drive:..... hex 24 mm

KL-0120-802 Tank Sender Spanner Ø110 mm - Ø170 mm

Range:..... 110 - 170 mm
Drive:..... hex 24 mm

KL-0126-205 Magnetic Lifter Telescope
with Scribing Iron

Universal application in handy form for pocket storage.

With a strong magnetic head with 7,5 mm Ø providing a lifting force of 300 g. Extendable to a total length of 670 mm, collapsed length only 155 mm. The Scribe may also be used to adjust the aim of screen-wash nozzles.

KL-0272-10 Slotted-Nut Spanner Set (3 pcs.)

For: VW Polo, Sharan; Ford Galaxy; Seat Alhambra.

For quick and easy removal and replacement of the Slotted-Nut retaining the multi-pin electric socket on the door-pillar. Required when the door needs to be removed.

Size	Application examples
Size 1	VW Polo front door VW Sharan, Ford Galaxy, Seat Alhambra rear door
Size 2	VW Sharan, Ford Galaxy, Seat Alhambra up to 2000 front door
Size 3	VW Sharan, Ford Galaxy, Seat Alhambra from 2001 front door

® = reg. trademark of Camcar-Textron Inc. USA

KL-0270-2 Screwdriver XZN M4

Application: For door handle **VW Passat from 96 onwards and Golf IV.**

KL-0271-1 Headlamp Adjusting Tool

For **VW Golf III and Vento.**

Length: ..... 300 mm

KL-4305-6225 Screwdriver Torx® T25

For removal and replacement of VW Sharan Headlamps from 2000 onwards.

The long, slim form of this Screwdriver allows the Torx® -Bolts on the headlamps to be quickly and easily reached.

Length: ..... 300 mm
Weight: ..... 70 g

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KL-0570-20

BMW



KL-4306-6330

BMW



KL-4305-6220

Mercedes



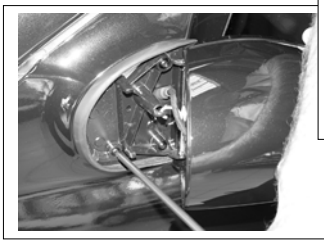
KL-4306-8320

Mercedes



5-Point





Note: Further screwdriver and screwdriver sets see chapter 10.

KL-0570-20 Special Torx® Socket T80

Necessary for removal and replacement of the windscreen wiper arm and adjusting the pressure on **BMW E31, E38 and E39.**

This special Torx® nut is mounted within the wiper arm bearing assembly.

Drive: ..... ½"□

KL-4306-6330 T-Handle Screwdriver
Torx® T30

For the front mudguard fixing bolts on e.g. Audi A4, A6; BMW (3 series E36/E46, 7 series E38).

This tool is required to allow the front mudguards to be removed and replaced without the need to remove the front doors. The long, slim form of the tool allows the recessed Torx® Bolts in the A-post to be removed and replaced through the door-opening.

For removal and replacement of Audi (A4, A6) Headlamps.

The long, slim form of this T-handle allows the Torx® Bolts on the headlamps to be quickly and easily reached.

For removal and replacement of the door panelling e.g. BMW (3 series E36, 5 series E60)

Length:.....350 mm

KL-4305-6220 Screwdriver Torx® T20

For removing and replacing the door handle Mercedes A Class and C Class.

The long, slim form of this Screwdriver allows the Torx® -Bolts on the door handle to be quickly and easily reached.

Length:.....300 mm
Weight: .....60 g

KL-4306-8320 5-point screwdriver set
(T20 x 260 mm)

Suitable for Mercedes.

The length and narrow shape of the **KL-4306-8320** five-star screwdriver makes it ideal for removing and installing outside mirrors on Mercedes vehicles.

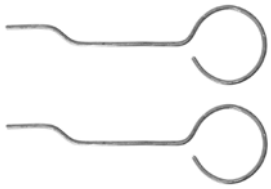
Note:
(The following retaining screws are used on Mercedes vehicles with the outside mirror shown here:)

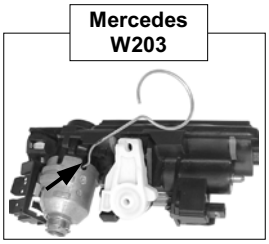
OEM: = Torx® T20 (KL-4306-6320) or 5-point T20
MB spare part = 5-point T20

Weight: .....100 g
Size:.....T20
Shaft Length .....255 mm
Overall length: .....295 mm

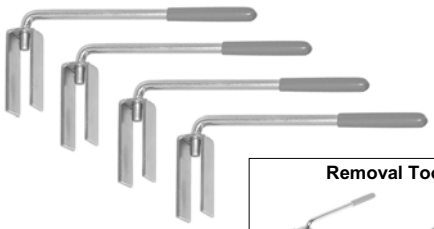
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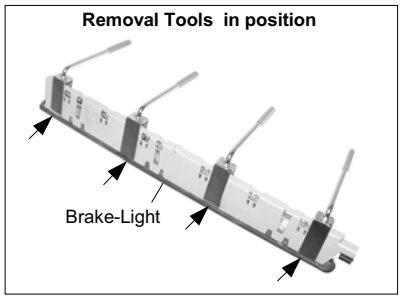
KL-0375-10





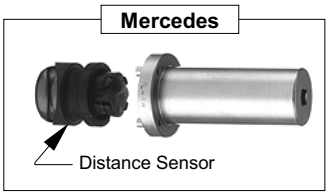
KL-0374-30





KL-0374-1



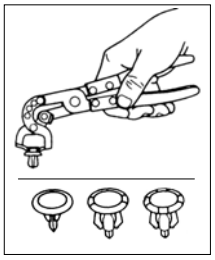


KL-0192-22



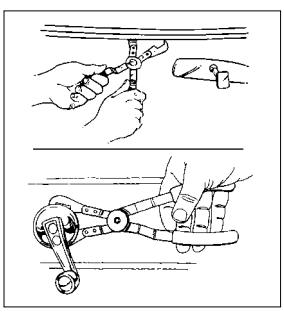
KL-0190-41





KL-0190-7





KL-0375-10 Needle Set for Tail Gate Lock

For Mercedes C Class (W203) Tail gate lock.

For quick and easy removal of the Locking Cylinder from the Tail gate Lock mechanism.

The Set consists of 2 Pins made from stainless steel (V2A).

KL-0374-30 Removal Tool Set (4 pcs.)

For Mercedes E Class (W210) Estate Car.

Required to remove the high-level brake-light from the tail-gate. All four retaining clips must be held open using the 4 piece removal tool set.

Failure to use these tools will result in damage to the mounting and the brake-light.

KL-0374-1 Toothed Socket for Distance Sensor

For removal and replacement of the Distance Sensor which is built-in to the rear bumpers of **Mercedes S Class** (W140) and **E Class** (W210).

Not only for removal and replacement, but also for mounting the Distance Sensor with the correct tightening torque.

Drive: ..... 3/8"□
Length: ..... 135 mm

KL-0192-22 Safety Clip Pliers

Suitable for all Audi A3, VW Golf IV with Petrol engines

To release the fuel line unions. Needed for example when the fuel filter is changed.

Suitable for Mercedes W124, W140 and W202.

For installing retaining clips to secure the chrome strip on the bumper of the **Mercedes W124, W140 and W202.**

Therefore, the pliers is equipped with special clip retaining notches.

Length: ..... 210 mm
Weight: ..... 200 g

KL-0190-41 Rivet Removal Pliers

With 90° rotating head.

To remove 2-part re-usable plastic rivets - examples: on Trim or inner door facings.

By lifting the central spreader pin with the Pliers **KL-0190-41** the Plastic Rivet may be withdrawn.

KL-0190-7 Windscreen Moulding / Door Handle Clip Pliers

For removal and replacement of the Ω Retaining Clips on Sun Visors, Rear-view Mirrors and Window-winders, etc.

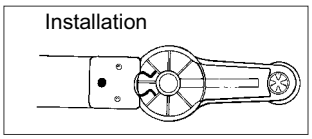
This tool is applicable to most vehicles.

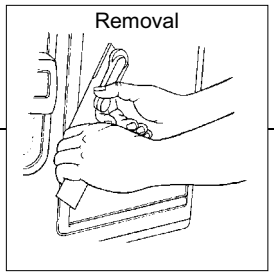
The tool prevents damage to Visors, Head-linings, Door-linings, etc.

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KL-0190-81





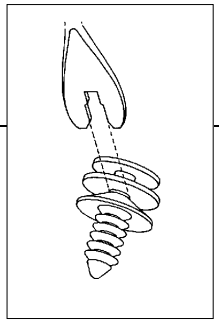


KL-0190-82



KL-0190-10





KL-0190-4



KL-0194-130

KL-0194-13



KL-0194-14



KL-0194-15



KL-0194-16



KL-0194-100

KL-0194-10



KL-0194-11



KL-0194-12



KL-0190-81 Window and Door Handle Clip Remover/Installer

For removal and replacement of the Ω Retaining Clips on Door-handles, Window-winders, etc.

This tool is applicable to most vehicles.

The tool prevents damage to Visors, Head-linings, Doorlinings, etc.

Weight: .....140 g

KL-0190-82 Window and Door Handle Clip Remover/Installer

To remove and replace the Ω-Retaining Clips found on Door handles, Window Winders, etc.

Application: For almost all passenger cars.

KL-0190-10 Trim Pry

For removal of door inner-linings.

Weight: .....200 g

KL-0190-4 Upholstery Pliers

Universal.

For removal of door inner-linings and other trim items held in place by plastic rivets.

KL-0194-130 Set of plastic wedges (4 pcs.)

The four plastic wedges are particularly suitable for body work such as removing and installing trim strips, door trims, door clips etc.

Contents / Technical Data:

Part-No.	Description	Measures [mm]	Weight [g]
KL-0194-130	Set of plastic wedges		250
consists of:			
KL-0194-13	Plastic wedge with felt	255 x 20 x 25	75
KL-0194-14	Plastic wedge with straight and angled tip	250 x 20 x 10	35
KL-0194-15	Plastic wedge	200 x 30 x 25	75
KL-0194-16	Plastic wedge angled with cutout and pin (for door clips).	230 x 22 x 8	55

KL-0194-131 Set of plastic wedges (3 pcs.) (not ill.)

As **KL-0194-130** but
consists of **KL-0194-13, KL-0194-14** and **KL-0194-15**.

KL-0194-100 Nylon Lever Set

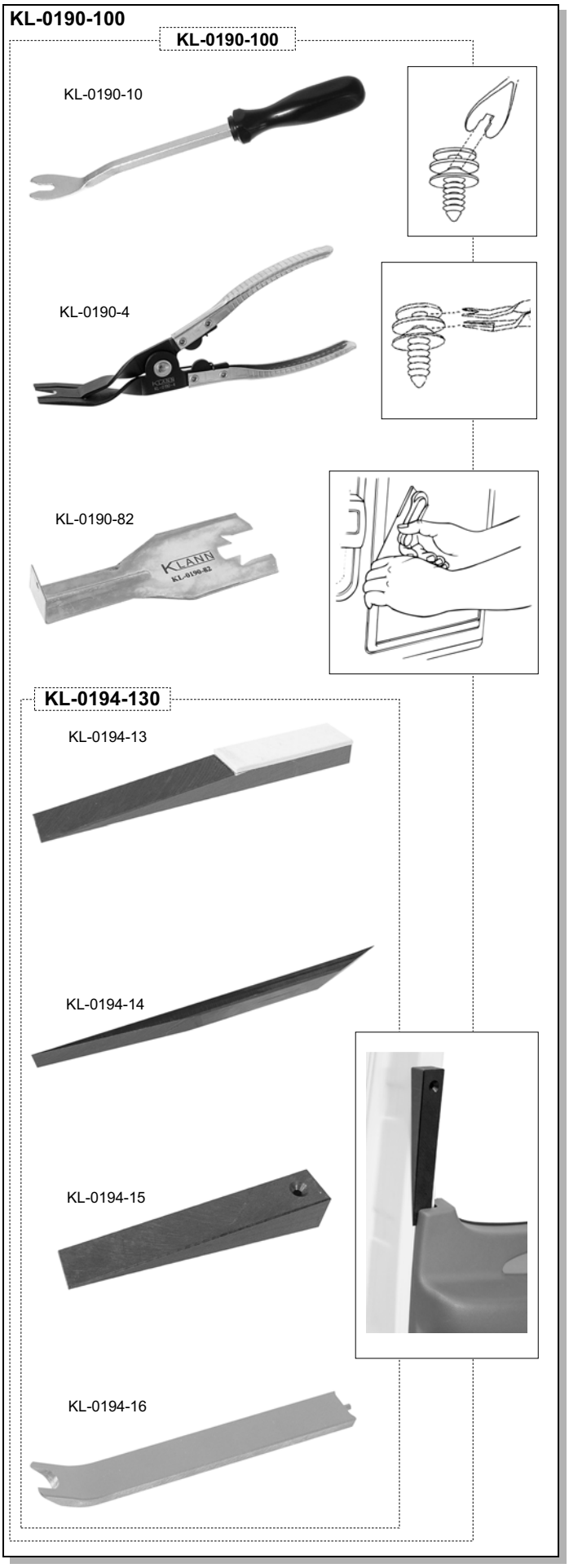
The Nylon Lever Sets allows the easy removal of ornamental ledges, door covering, windscreen rubber, etc.

Because the lever sets are made of nylon no damage is caused when used on glass, paintwork and door covers.

Specification / Technical Data:

Part No	Description	Measures [mm]	Weight [g]
KL-0194-100	**Nylon Lever Set**		
consists of:			
KL-0194-10	Nylon Mount Wedge	200 × 26 × 26	100
KL-0194-11	Nylon Mount Lever	Length: 201	15
KL-0194-12	Nylon Mount Lever	Length: 202	25

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KL-0190-100 Removal Tool Set
for door and side panel trims

Correct removal of interior trim elements or similar still remains a problem for the mechanic.

In contrast to work inside the engine compartment, under the car or on the brakes, the car's owner will not overlook *marks or damage inside the car caused by repair works.*

Damaged screw heads, scratched paint or marks caused by the use of unsuitable tools reflect badly on the quality of the workshop.

If interior trim elements are removed carefully, by the correct procedure and using suitable tools, it will be easy to avoid such problems.

Advantage

- universal using.
- Clean working methods.
- No damage to trim elements.

Consists of:

Part no.	Description	Qty.
KL-0190-10	**Release lever** to remove door panel trims.	**1**
KL-0190-4	**Universal door trip pliers** to release most types of clip. Also suitable for trim strips, rubber bumper facings, etc.	**1**
KL-0190-82	**Door spring release tool** to remove and install retaining clips e.g. on door handles, window crank handles, etc. Suitable for almost all vehicles.	**1**
KL-0194-130	**Set of plastic wedges (4 pcs.)** The four plastic wedges are particularly suitable to operate on the car body e.g. removing and installing door trims, door clips, trim strips, etc.	**1**

consists of:

KL-0194-13	Plastic wedge with felt (255x20x25mm)
KL-0194-14	Plastic wedge with straight and angled tip (250x20x10mm)
KL-0194-15	Plastic wedge (200x30x35mm)
KL-0194-16	Angled plastic wedge with cutout and peg for door clips (230x22x8mm)

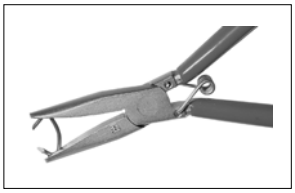
Accessories: KL-4990-1007 - Plastic storage case
(not ill.)

Measures: Outer 340x275x83 mm
Inner 326x222x77 mm

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KL-0190-50





KL-0190-50 Hog Ring Pliers Set

For closing Hog Rings to repair passenger car seats (various manufacturers).

Size:.....220 × 115 × 33 mm

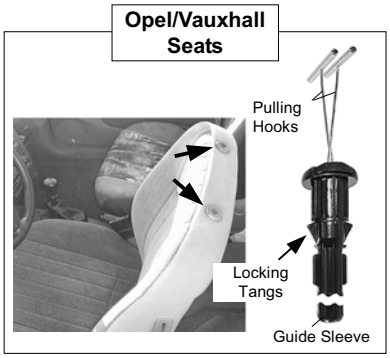
Weight: .....500 g

Contents:

Part No.	Description	Qty
KL-0190-50	**Hog Ring Pliers Set**	**1**
consists of:		
KL-0190-5	Hog Ring Pliers	1
KL-0190-501	Hog Rings (100 Pcs)	1
	Plastic Storage Case	1

KL-0470-10





KL-0470-10 Pulling Hook Set

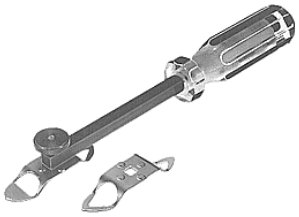
Suitable for Opel/Vauxhall Astra, Corsa, Frontera, Omega, Tigra, Vectra, Zafira

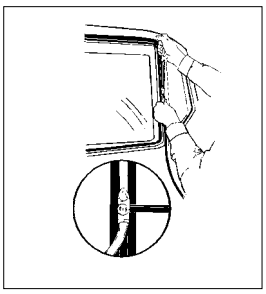
To allow the removal of the Head Support colums in the seat-back to be removed without the need to dismantle the upholstery, it is necessary to depress the inner locking tangs using **KL-0470-10** Hook Set.

Length:.....166 mm

Weight: 42g

KL-0194-41





KL-0194-41 Windscreen Locking Strip Tool

Two Double-Ended Tips to Fit Most Applications.

Just select the tip with opening that most closely fits locking strip and then feed locking strip into eyelet.

Weight: .....170 g

KL-0194-27



KL-0194-273
Square cut wire 50 m



KL-0194-27 Cutting Wire Tool Set

For cutting glued glass panes.

Consists of :

2 self sticking handle grips, 50 m of wire, 1 needle with eyelet, 1 wooden case (275x145x38mm).

Weight: .....800 g

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KL-0191-1



KL-0191-1 Gasket Scraper - Small

For cleaning of sealing faces especially at narrow space conditions, due to short design. Quenched and tempered blade.

Length: ..... 180 mm
Blade width: ..... 24 mm

KL-0191-2



KL-0191-2 Gasket Scraper

For cleaning of sealing faces on engine, gearbox etc. Long design. Quenched and tempered blade.

Length: ..... 245 mm
Blade width: ..... 24 mm

KL-0191-3



KL-0191-3 Gasket Scraper - Large

For cleaning of sealing faces, large design. This tool is also applicable for removal of under body sealant.

Length: ..... 180 mm
Blade width: ..... 32 mm

KL-0191-61



KL-0191-61 Gasket Scraper

For removing stickers from windscreens, bumpers etc.

Length: ..... 165 mm
Blade width: ..... 40 mm
Weight: ..... 200 g

Spare part:

KL-0191-611 Stainless steel blade set (10 Pcs.)

KL-0191-30









KL-0191-30 Gasket Scraper Set

Suitable to clean sealing faces, small and large design. Required also to remove underbody coatings during repairs.

The tool set contains, for each blade width, a scraper with flexible blade and one with extra sturdy blade.

Length: ..... 230 mm
Blade width: ..... 31,5 mm
Blade strength: ..... 1,2 mm
Weight: ..... 109 g

Length: ..... 230 mm
Blade width: ..... 31,5 mm
Blade strength: ..... 2,5 mm
Weight: ..... 145 g

Length: ..... 180 mm
Blade width: ..... 20 mm
Blade strength: ..... 1,2 mm
Weight: ..... 90 g

Length: ..... 180 mm
Blade width: ..... 20 mm
Blade strength: ..... 2,5 mm
Weight: ..... 107 g

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KL-0192-24

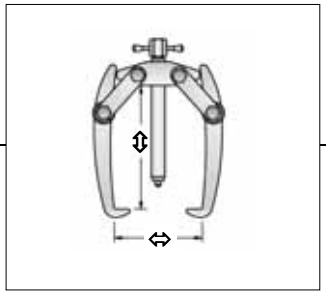


KL-0192-25



KL-0157-2





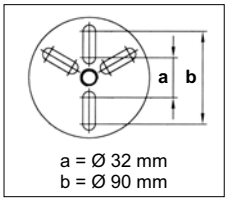
KL-0157-1



KL-0153-5 K

Universal





a = Ø 32 mm
b = Ø 90 mm



KL-0192-24 Flat Round Pliers

With extra long grip, for difficult to get to positions.

Length:.....280 mm

KL-0192-25 Flat Round Pliers angled 45°

With extra long grip, angled 45°, for difficult to get to positions.

Length:.....280 mm

KL-0157-2 Twin-Arm Battery-terminal puller

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

Part-No:	⇔ [mm]	⇕ [mm]	Load max.	Weight [kg]
KL-0157-2	60	40	0,5 t.	0,3

KL-0157-1 Twin-Arm Battery-terminal puller

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

Part-No:	⇔ [mm]	⇕ [mm]	Load max.	Weight [kg]
KL-0157-1	60	60	0,5 t.	0,3

KL-0153-5 K Puller Set

Puller Set for Steering Wheels, Sprockets, Pulleys and Shafts, etc.

Range: ..... Ø 32 - Ø 90 mm

Consists of:

Puller Disc: ..... Ø-110mm (2+3 Hole mounting) with Spindle.
Allen®-bolt: ..... M8x1,25 x 100 3 pcs.
Allen®-bolt: ..... M10x1,25 x 100 3 pcs.
- Hex bolt:..... M8x1,25 x 80 3 pcs.
- Hex bolt:..... M10x1,5 x 50 3 pcs.
- Hex bolt:..... 1/4" UNF x 75 2 pcs.
- Hex bolt:..... 5/16" UNF x 90 2 pcs.
- Hex bolt:..... 5/16" UNC x 50 3 pcs.
- Hex bolt:..... 5/16" UNC x 110 3 pcs.
- Hex bolt:..... 3/8" UNF x 50 3 pcs.
- Hex bolt:..... 3/8" UNC x 100 3 pcs.

Washers:..... 1/4"x19 2 Pcs.; 5/16"x18 3 Pcs.; 3/8"x20 3 pcs.

The Set is delivered in Plastic Storage Case.

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KL-0153-1



Opel, Ford



KL-0153-1 Steering Wheel Puller

For **Opel, Ford etc.**

Steering wheels which are stuck on the steering column may be pulled off cleanly, quickly and without damage to the steering column and steering wheel with the puller **KL-0153-1**.

The different length of the puller arms and the longitudinal groove in the yoke allows an almost universal application of this puller tool.

Adjusting Range: ..... max. 90 mm
Height: ..... 135 mm

Advantages of the puller tool:

- Universal application.
- No damage to the steering wheel during pulling action.

KL-0153-3

Opel



KL-0153-3 Steering Wheel Puller

As **KL-0153-1** but for **Opel Frontera.**

The special design of this puller permits a damage free separation of steering wheel and steering column.

Fork opening: ..... 39.8 mm

KL-0153-4

Opel



KL-0153-4 Steering Wheel Puller

As **KL-0153-3** but for **Opel Monterey**.

KL-0153-2

Mercedes





KL-0153-2 Steering Wheel Puller

Suitable for **Mercedes** Transporters and trucks.

Allows easy removal of stubborn steering wheels without risk of damage to either steering column splines or the steering wheel.

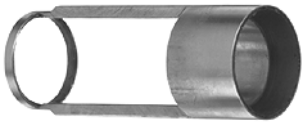
Adjusting Range: ..... 40 - 88 mm
Screws: ..... M10 x 60

Advantages of the puller tool:

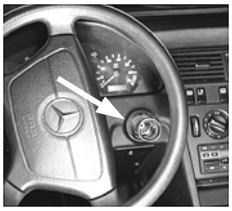
- Due to the longitudinal grooves in the puller plate, this puller can be universally used as a two arm puller as well as a three arm puller.
- Flanged nut of the spindle prevents a slip off of the operating tool.
- No damage to the steering wheel during extraction.

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KL-0372-4



Mercedes W202, W210



KL-0372-5

Mercedes



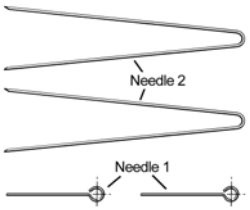
KL-0372-6



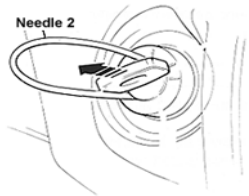
Mercedes



KL-0372-1



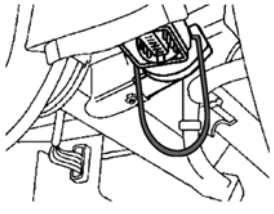
Mercedes



KL-0372-70



Mercedes



KL-0372-4 Sleeve for Ignition Switch

The mounting sleeve **KL-0372-4** is a special tool designed for removal and refitting the ignition switch on **Mercedes W202 and W210** up to '97.

The tool consists of tubular outer casing with a conical rubber insert.

KL-0372-5 Braker Bar

Overcomes problems on **Mercedes W124 and W201** up to 1993 if the ignition key should break in the ignition lock. In this event, the **KL-0372-5** allows the ignition switch assembly to be broken off the steering column so that a new switch assembly may be fitted.

Advantages of the tool:

- No damage to steering column and dash board.
- No drilling out of the locking switch.
- Increased job time saving.
- Low tool costs.
- No accidents.

KL-0372-6 Assembly Sleeve for Ignition Switch

For removal and replacement of the ignition switch retaining ring fitted to **Mercedes types W129, W140, W203, W208, W209, W210, W211, W220 and W230 with FBS 2 and FBS 3 Ignition Switch.**

KL-0372-1 Needle Set for Ignition Switch

For removal of ignition switch on **Mercedes** passenger cars

The needle set **KL-0372-1** contains needles of size 1 and size 2 with a diameter of 1.25 and 2.0 mm.

They are applicable for the removal of the ignition switch on following types:

- Needle 1 on **Mercedes W116, W123 and W126**
- Needle 2 on **Mercedes W124 and W201**

Advantages:

- Problem-free and quick removal of the ignition switch on the specified types.

KL-0372-70 Spring Tool for Steering Lock protection sleeve (2 pcs.)

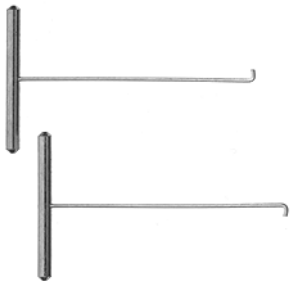
Suitable for **Mercedes W129, W140, W210 and W202 with FBS2 Ignition Switch**

To remove the Protection Sleeve with the Ignition Switch from the Steering Lock, it is necessary to press in both Locking Bolts in the Steering Lock using **KL-0372-7**.

The Set contains 2 Spring Tools made from stainless steel.

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KL-0372-3



Mercedes



KL-0191-10



VW- Audi, BMW, Mercedes



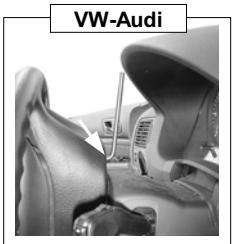
KL-0191-11



KL-0242-10



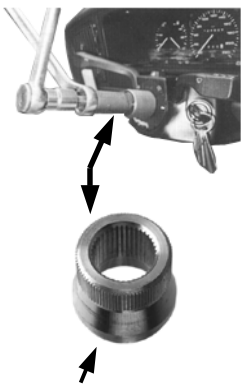
VW-Audi



KL-0240-1 KL-0240-2



VW- Audi, Seat, Škoda



The Problem:
Splined sleeve

KL-0372-3 Pulling Hooks long

For easy removal of the instrument panel on **Mercedes passenger cars W116, W123, W124, W126, W129, W140, W201, W202, W203, W208, W209, W210, W211, W220 and W 230.**

KL-0191-10 Special Torx Driver T30 (with pilot)

This tool allows easy removal and replacement of the retaining screws on airbag fitted to **BMW, Mercedes.**

Access is permitted by special length of 85 mm with ¼“-drive.

Length: ..... 85 mm
Drive: ..... ¼"
Weight: ..... 22 g

KL-0191-11 Special Torx Driver T30

This Tool allows easy removal and replacement of the retaining screws on airbags fitted to **VW, Audi, Opel, Renault** etc.

Length: ..... 85 mm
Drive: ..... ¼"
Weight: ..... 22 g

KL-0242-10 Airbag Removal Tool Set (2 pcs.)

Suitable for Driver’s air bag housing e.g. VW Golf IV, Lupo, New Beetle, Passat (B5) 97-onwards, Polo 99-onwards.

In order for the driver’s air bag housing to be removed, it is necessary to loosen the retaining bridge with the **KL-0242-10** Airbag Removal Tool Set.

KL-0240-1 Steering Wheel Sleeve Puller VW

On **VW Golf II, Jetta, Golf III, Vento, Polo, Passat, etc.** from ‘88 onwards it is necessary to remove a splined sleeve after removal of the steering-wheel. The precise fit of this puller ensures a quick and easy removal of the sleeve without the risk of damage to the steering-column splines.

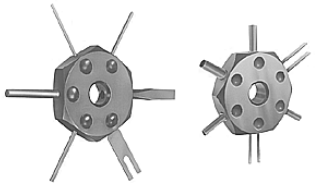
Chuck range: ..... 27 - 30 mm

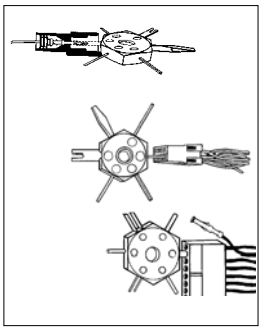
KL-0240-2 Drift for knocking out steering sleeves

The Drift **KL-0240-2** made of brass allows the sleeves on the steering-column to be separated without risk of damage.

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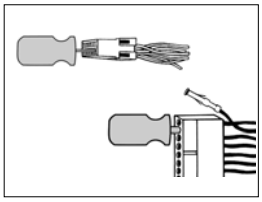
KL-0190-23 KL-0190-24





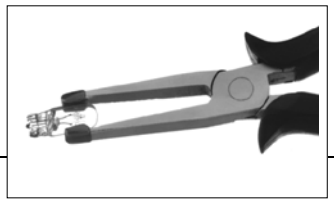
KL-0190-26 K





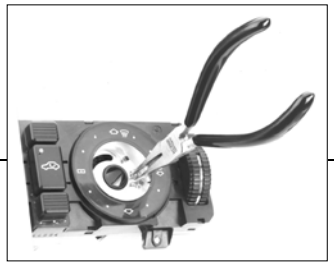
KL-0190-20





KL-0190-21





KL-0190-27



Terminal Tools

Eliminate Damaged Wires and Terminals.

Designed to remove wires from terminals without damage to either.

KL-0190-23 Ejecting Tool for Receptacles

Designed for Pack-Con and Weather-Pack terminals on GM C3 Systems. Tool can also retrieve trouble codes from engine computer on late model GM vehicles.

Weight: .....60 g

KL-0190-24 Ejecting Tool for Receptacles

Prongs depress the “barbs“ on conventional terminals.

Weight: .....60 g

KL-0190-26 K Terminal Tool Set
for push-on contacts

To release plug and socket cable connections.

During the release procedure the barbed hooks are pushed on the terminals by means of the tool forks, and then cables and plugs can be extracted.

Terminal tools:

Part No.	Description	Measures	Symbol
KL-0190-2601	Terminal Tool round with Spring “A“	3,3mm x 28mm	○
KL-0190-2602	Terminal Tool square “B“	1,4mm x 28mm	■
KL-0190-2603	Terminal Tool slot “C“	1,6mm x 25mm	⊖
KL-0190-2604	Terminal Tool slot “D“	2mm x 22,5mm	⊖
KL-0190-2605	Terminal Tool split slot “E“	8mm x 24mm	⊕
KL-0190-2606	Terminal Tool slot “F“	4,6mm x 25mm	⊖
KL-0190-2607	Terminal Tool round “G“	3,3mm x 28mm	○
KL-0190-2608	Terminal Tool round “H“	4,3mm x 13mm	○
KL-0190-2609	Terminal Tool round “I“	3,8mm x 12,3mm	○
KL-0190-2610	Terminal Tool round “J“	3,0mm x 12,5mm	○
KL-0190-2611	Terminal Tool split slot horizontal “K“	3,2mm x 19,2mm	⊟
KL-0190-2612	Terminal Tool split slot horizontal “L“	1,6mm x 16,3mm	⊟

Weight: .....300 g

KL-0190-20 Bulb Pliers (universal)

Application: **VW-Audi, Opel/Vauxhall, Ford, Mercedes, BMW**.

For quick and easy removal of bulbs from dashboards etc.

Length:.....165 mm Weight: .....150 g

KL-0190-21 Bulb Pliers (universal)

For the removal of small light bulbs (Ø 4-6 mm) from dashboards etc.

Length:.....135 mm Weight: .....78 g

KL-0190-27 Bulb Pliers (universal)

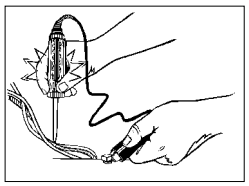
Very light all-plastic pliers suitable to extract small glass-based light bulbs installed in control panels or in luminous switches.

Length:.....156 mm Weight: .....5 g

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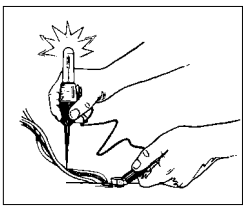
KL-0190-30





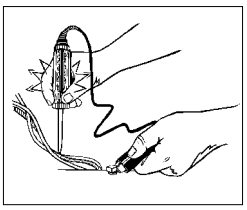
KL-0190-32





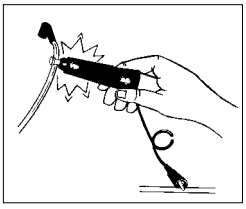
KL-0190-34





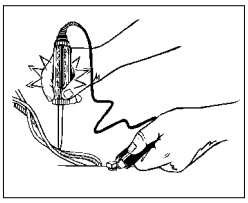
KL-0190-35



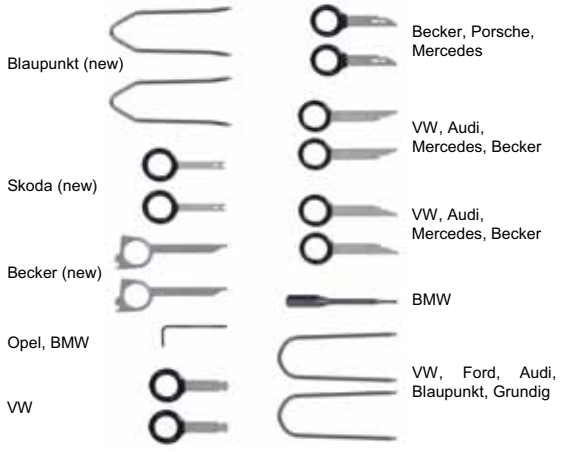


KL-0190-36

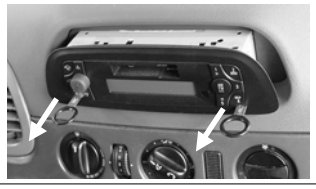




KL-0190-25



Release locking mechanisms and removal radios



KL-0190-30 Pilot Lamp

The Test lamp allows checking of connections and cables up to 24 volts DC. Locates short-circuits and open-circuits.

The probe-tip is protected by a screw-cap.

Weight: ..... 60 g

KL-0190-32 Pilot Lamp

Quick check both AC and DC current up to 28 volts with power on. Helps locate shorts or breaks in wiring. Complete with insulated grounding clip.

Weight:..... 85 g

KL-0190-34 Pilot Lamp

Quickly Tests Low Voltage up to 28 Volts.

The probe, handle, cord and clamp are reinforced for extra durability.

Weight:..... 170 g

KL-0190-35 Pilot Lamp

Checks Both Low Voltage and Spark Plug Wires.

The low - side checks AC and DC current up to 28 volts with power on. The high - side checks spark plug wires without piercing. Complete with insulated clip.

Weight:..... 85 g

KL-0190-36 Pilot Lamp

The test lamp is ideal for a rapid check on 3 - 20 Volt power lines and for determining the polarity.

Red light means + (positive),

Green light means – (negative) polarity

Can also be used for low currents from 21 mA.

Weight:..... 115 g

KL-0190-25 Unlocking Tool

Necessary to release car radios and navigation systems locking mechanisms.

Suitable e.g. **for VW-Audi, BMW, Ford, Skoda, Opel, Porsche, Mercedes as well as Becker, Blaupunkt, Grundig** etc.

Specification / Application:

Field of application	Qty
Blaupunkt (new)	2
Skoda (new)	2
Becker (new)	2
Opel, BMW	2
VW	2
Becker, Porsche, Mercedes	2
VW, Audi, Mercedes, Becker	4
BMW	2
VW, Ford, Audi, Blaupunkt, Grundig	2

The tool set is supplied in a plastic case.

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GEDORE
Tools for life



CONVENTIONAL & MODULAR

Professional stripping

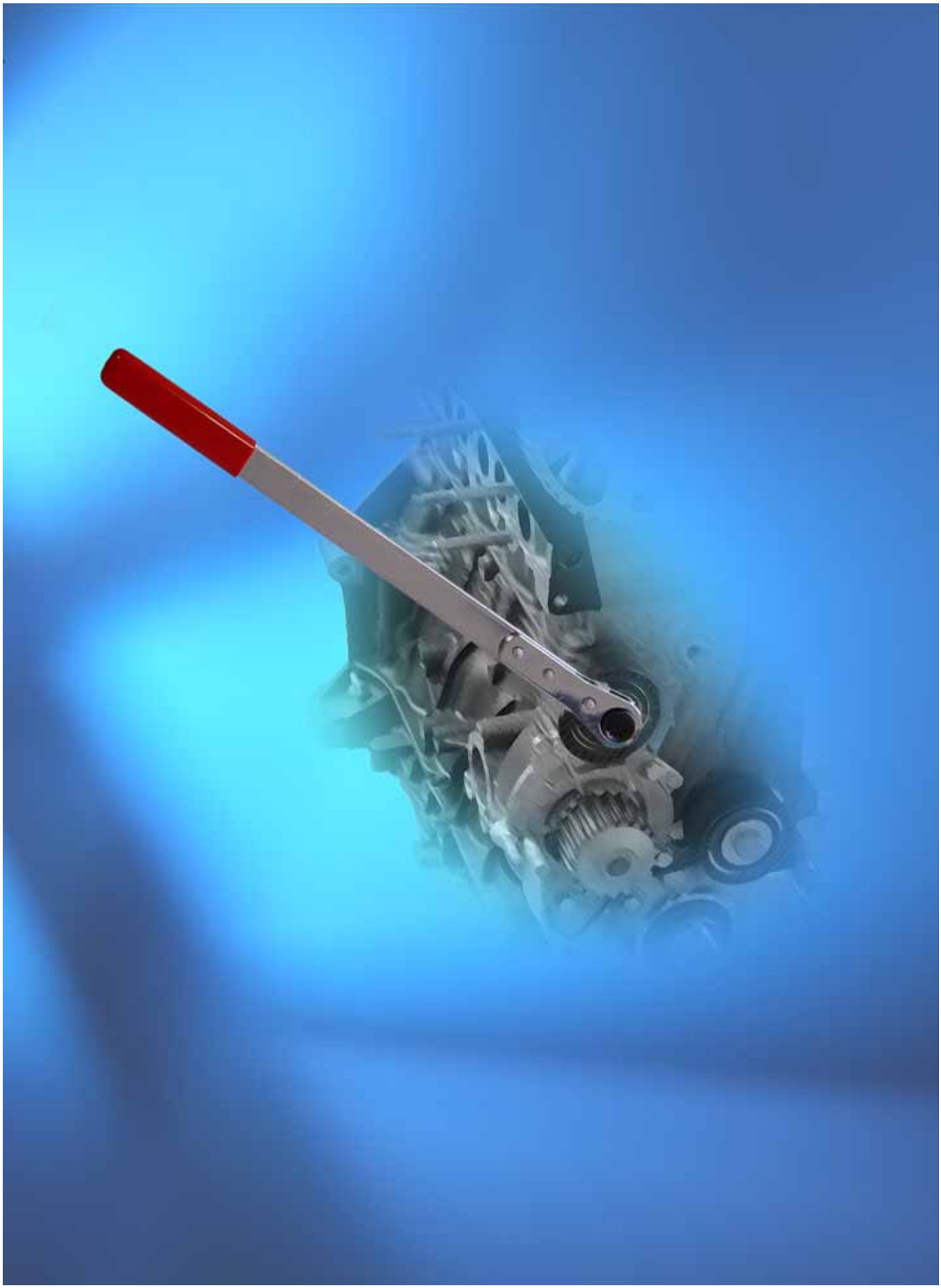




tools for life

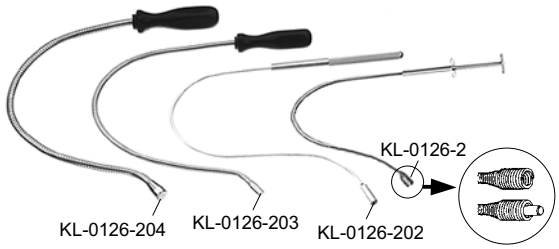
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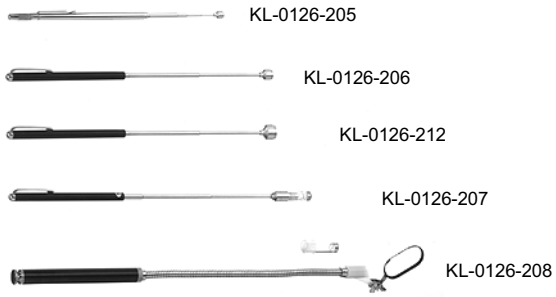


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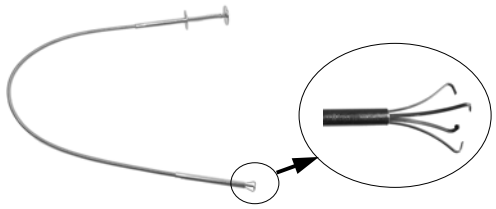
Magnetic Lifter (flexible)



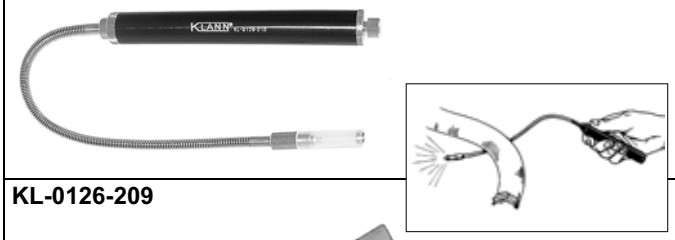
Magnetic Tools (Telescopic Design)



KL-0126-250



KL-0126-213



KL-0126-209



KL-0126-261



KL-0126-260

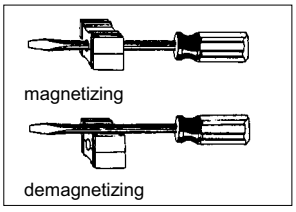


KL-0126-221



KL-0126-211





Magnetic Lifter

KL-0126-2 Magnetic Lifter with flexible Shaft
The lifting magnet is located within an anti-magnetic sleeve. This allows the tool to be positioned accurately before the magnet comes into operation. The magnet is triggered by pressing the handle which slides back the protective anti-magnetic sleeve.

KL-0126-202 Magnetic Lifter flexible (Alu)
With flexible shaft, which will remain in desired position.

KL-0126-203 Magnetic Lifter flexible
With flexible shaft - does not hold its position.

KL-0126-204 Magnetic Lifter flexible - extra strong
With flexible shaft, which will remain in desired position.

Technical Data:

Part No.	Lift effort [g]	Head-Ø [mm]	Length [mm]	Wgt. [g]
KL-0126-2	400	7	560	80
KL-0126-202	600	8	540	30
KL-0126-203	600	8	470	70
KL-0126-204	2000	15	480	140

Magnetic Lifter Telescopic Design

Part No.	Description	Liftpower [g]	Head-Ø [mm]	Length [mm]	Wgt. [g]
KL-0126-205	With scriber	300	7,5	155 - 670	28
KL-0126-206	Strong	1600	11	130 - 630	33
KL-0126-212	Extra strong Liftpower	3600	15	135 - 650	61
KL-0126-207	With light	500	11	165 - 665	40
KL-0126-208	With light and mirror	1600	14	455	167

KL-0126-250 Claw Pickup Tool

For retrieving small parts like nuts, bolts, washers, etc. from very inaccessible places. Length:.....600 mm

KL-0126-213 Flexible Lamp

This flexible Lamp allows inaccessible places to be readily illuminated. The flexible shaft, on the end of which is the Lamp with a detachable magnetic head, retains all adjustments and bends.
Two 1.5 volt Mignon-Batteries are required, which are ***not*** included.
Total Length: .....430 mm Weight (without Batteries) .....120 g

Spare Parts:
KL-0126-2131 Replacement Light Assembly Set
(consists of: 5 bulbs and 1 magnetic head)

KL-0126-209 Telescopic Mirror

Allows hard to reach places to be easily seen. Used in engine inspection etc. (360° rotatable) Length:.....320 / 720 mm

KL-0126-261 Telescopic Mirror

Allows hard to reach places to be easily seen. Used in engine inspection etc. (rotatable). Length:.....170 / 300 mm

KL-0126-260 Telescopic Mirror

Allows hard to reach places to be easily seen. Used in engine inspection etc. (rotatable). Length:.....135 / 485 mm

KL-0126-221 Magnetic Valve Key Lifter

With this **flexible** Mini-Magnetic Lifter metallic objects may be removed from the smallest crack.

Magnetic Lifter **KL-0126-221** is particularly suitable for removal of valve-stem collets.

Technical Data:
Length:.....100 mm Weight:.....6 g
Lifting Force-Ø 3 mm Magnet: ...150 g Lifting Force-Ø 4 mm Magnet: .....270 g

KL-0126-211 Magnetizing and Demagnetizing-Block

To magnetize and demagnetize tools.

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KL-0126-302





KL-0126-301



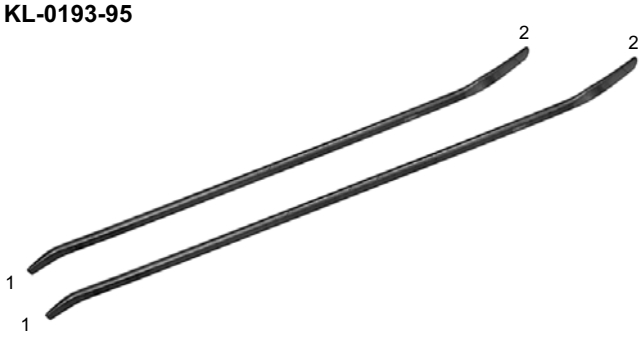
KL-0193-90



KL-0190-94



KL-0193-95



KL-0126-302 Tweezer Set

6 piece tweezer set - universal application.

Description	Length	Qty
Extra slim, fine tips	125 mm	1
Extra fine tips	115 mm	1
Extra long, rounded tips, self-locking	170 mm	1
Fine tips; 40° angled	145 mm	1
Fine tips; self-locking	120 mm	1
Special tips for instrument bulbs	115 mm	1

Weight: ..... 140 g

KL-0126-301 Mini Hook and Pick Set

Designed to ease the removal of “O“ rings, cotter pins, seals and bushes in various automotive applications. Blades stainless steel hardened and tempered with impact – resistant handles.

KL-0193-90 Pry Bar Set

Set consists of four hard wearing pry bars applicable for a number of different jobs. e.g.

- **Dismantling stubborn components.**
- **Positioning components.**
- **Holder components in required position.**
- **Spreading clamp-fixtures, etc.**

consists of:

Length	Pry Width
24“ (610 mm)	20 mm
18“ (460 mm)	20 mm
12“ (310 mm)	16 mm
8“ (200 mm)	10 mm

KL-0190-94 Pry Bar

Pry Bar made of special steel especially suitable for:

- **Dismantling stubborn components.**
- **Positioning and holding components in required position.**
- **Spreading clamp-fixtures, etc.**

Length: ..... 900 mm
Blade width: ..... 24 mm

KL-0193-95 Pry Bar Set

These Pry Bars are manufactured from special steel and are particularly suitable for:

- **Dismantling stubborn components.**
- **Positioning and holding components in required position.**
- **Checking ball joints and silent bearings.**
- **Spreading clamp-fixtures, etc.**

Technical Data:

Length	Pry Width 1 / 2	Weight
730 mm	24 / 33 mm	1600 g
1050 mm	24 / 33 mm	1900 g

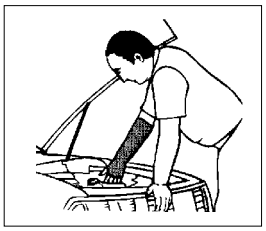
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KL-0193-91



KL-0134-10





KL-0126-240



KL-4901-10



KL-4902-10



KL-0140-79





KL-0193-91 Mounting Lever

With chromed Blade.

Special profile ideal for Bodywork and Inner Door Trim.

Length:.....275 mm
Pry Width: .....26 mm

KL-0134-10 Arm Protector

Protects Arm from Burns While Working Around the Engine.

Made of durable, heat-resistant Kevlar®. Double wall construction for added heat protection.

Weight: .....57 g

KL-0126-240 Magnetic Tray

Stainless Steel Tray with extra strong rubber-protected magnetic feet.

Size:..... 240 mm x 140 mm

KL-4901-10 Combi-Shears

High performance Blades of stainless steel for perfect cuts along the whole length of the blade. One serrated blade for cable-cutting.

Comfortable impact-resistant plastic handles with sprung self-opening action.

Blade Length .....40 mm
Overall Length: .....180 mm

KL-4902-10 Hack Saw (150 mm)

Very compact, with ergonomic Handle for delicate work in confined spaces.

For Wood, Plastic or Metal.

Blade Length:: .....150 mm
Overall Length .....270 mm

Spare Part:

KL-4902-101 Replacement Blade Pack (10 pieces)

KL-0140-79 Torx® Bit and Socket Identifier

Help Select the Right Torx® Bit or Socket

A complete set of Torx® gauges will correctly identify the exact size of a Torx® nut, bolt or screw.

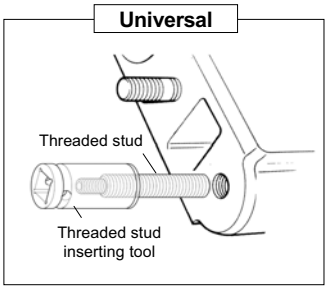
Set identifies Torx® bit sizes T5 through T-80, Torx® socket sizes E-1 through E-32, and tamper-proof Torx® bit sizes T-5 through T-80.

® = reg. trademark of Camcar-Textron Inc. USA

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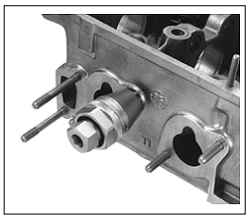
KL-0181-70 K





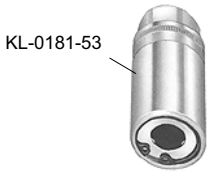
KL-0181-1





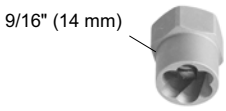
KL-0181-6





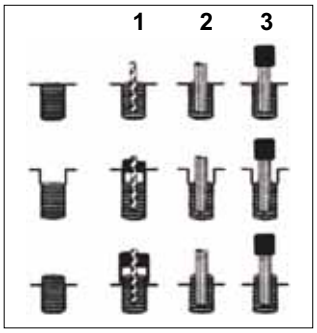
KL-0181-72 K





KL-0181-21 K





KL-0140-41 **KL-0140-40**



Note: The Frame Micrometers **KL-0140-40** and **KL-0140-41** are delivered in storage boxes.

KL-0181-70 K Stud Inserting Tool Set in Plastic Case

Applicable for M6, M8, M10, M12, M8x1 and M10x1 threaded studs.
For clean, rapid insertion of threaded studs, for instance during engine repairs. *consists of:*

Part No.	Description
KL-0181-7006	Threaded stud inserting tool M6
KL-0181-7008	Threaded stud inserting tool M8
KL-0181-7010	Threaded stud inserting tool M10
KL-0181-7012	Threaded stud inserting tool M12
KL-0181-7108	Threaded stud inserting tool M8x1
KL-0181-7110	Threaded stud inserting tool M10x1
KL-4990-1004	Plastic case with foamed material liner

Technical Data:

Weight:..... 1250 g Drive:..... 1/2" □ Length:... 52 mm
Measure plastic case:..... 275 x 230 x 83 mm

KL-0181-1 Stud Tool

Universal tool for studs with diameter 6 - 12 mm.
Suitable even for broken screws when the rest length is at least 5mm.

Advantages:
• Infinitely adjustable. • Operates in the most confined space. • Ideal also for bolts with rusted or stripped threads • Also for bolts with undersize.

KL-0181-6 Stud Extractor and Inserting Tool Set

For removal and replacement of threaded studs (left or right hand studs).

Weight: ..... 1,15 kg Outer Drive: ... Hex. 21 mm
Inner Drive: ..... ½"□

KL-0181-6 Stud Tool Set *consists of:*

Part No.	Description
KL-0181-51	for Ø 6 mm
KL-0181-52	for Ø 7 mm
KL-0181-53	for Ø 8 mm

Part No.	Description
KL-0181-54	for Ø 10 mm
KL-0181-55	for Ø 12 mm
KL-0181-5001	Plastic Case

KL-0181-72 K Screw Extractor Set

To extract screws, nuts and bolts when locating threads or hexagons are damaged.
Due to the special insert design (tapered and special left section) both screws and nuts and bolts can be easily loosen and removed.

Supplied tools (insert dimensions): Drive:..... 3/8"
1/4" (6,3mm); 5/16" (8mm); 3/8" (9,5mm); 10mm; 7/16" (11mm); 12mm; 1/2" (12,5mm); 13mm; 9/16" (14mm); 5/8" (16mm); 17mm; 11/16" (17,5mm); 3/4" (19mm).

KL-0181-21 K Screw Drill Set

To remove broken screws and thread bolts - thread M5 - M16.

Procedure: 1. Open the broken bolt (or screw) by drilling (use boring bush if necessary). 2. Drive in the pin. 3. Place the nut on the pin and extract by means of a screw-wrench.

Spare Parts/Accessories:

Part No.	Description	Qty.
KL-0181-2112	Drilled pin set for driller Ø: 3,2 mm (5.Pcs.)	1
KL-0181-2122	Drilled pin set for driller Ø: 4,8 mm (5.Pcs.)	1
KL-0181-2132	Drilled pin set for driller Ø: 6,4 mm (5.Pcs.)	1
KL-0181-2142	Drilled pin set for driller Ø: 8,0 mm (5.Pcs.)	1
KL-0181-2152	Drilled pin set for driller Ø: 8,8 mm (5.Pcs.)	1

Frame Micrometers

With ratchet and clamping-ring, enclosed thread, spindle hardened and adjustable, with hand guard insulating pads, reading parts chrome plated, with check-gauge. Description: Chrome-plated.

KL-0140-40 Frame Micrometer
Range: ..... 0-25 mm Pitch:..... ½ mm Weight:..... 350 g

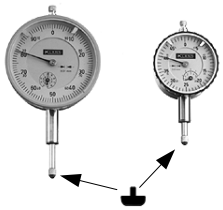
KL-0140-41 Frame Micrometer
Range: ..... 25-50 mm Pitch:..... ½ mm Weight:..... 500 g

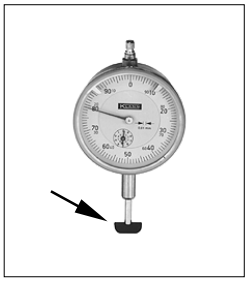
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KL-0128-1 **KL-0128-0** **KL-0128-25**






KL-0128-02



KL-0140-50



KL-0128-31





KL-0140-36



KL-0128-1 Dial Indicator Ø 58 mm

Description: Stem and spindle stainless steel, accuracy to DIN 878-A.

Reading:: .....0,01 mm
Measuring Range: ..... 10 mm
Housing -Ø: ..... 58 mm
Set nut revolution by 360: ..... 1 mm
Stem -Ø: .....8 h 6

KL-0128-0 Dial Indicator Ø 40 mm

Description: Stem and spindle stainless steel, accuracy to DIN 878-E.
The dial indicator is additionally equipped with an extension of 10 mm (**KL-0128-03**).

Reading: .....0,01 mm
Measuring Range: ..... 5 mm
Housing -Ø: ..... 40 mm
Set nut revolution by 360: ..... 0,5 mm
Stem -Ø: .....8 h 6

KL-0128-25 Extension Set

For Dial Indicators **KL-0128-0** & **KL-0128-1**. Each extension with diameter 4 mm. The set consist of extensions **KL-0128-03** to **KL-0128-21**.

Part No.	Length
KL-0128-03	10 mm
KL-0128-04	15 mm
KL-0128-05	20 mm
KL-0128-06	25 mm
KL-0128-07	30 mm
KL-0128-08	35 mm
KL-0128-09	40 mm

Part No.	Length
KL-0128-10	45 mm
KL-0128-11	50 mm
KL-0128-12	55 mm
KL-0128-13	60 mm
KL-0128-14	65 mm
KL-0128-15	70 mm
KL-0128-16	75 mm

Part No.	Length
KL-0128-17	80 mm
KL-0128-18	85 mm
KL-0128-19	90 mm
KL-0128-20	95 mm
KL-0128-21	100 mm
Accessory: KL-0128-02 Flat Measuring Pin	

KL-0128-02 Flat Measuring Pin

As an accessory for the shown Dial Indicators KL-0128-1 (Ø58 mm) or **KL-0128-0** (Ø40 mm).

KL-0140-50 Precision-Inside-Measuring-Tool

Dial gauge for measuring of cylindrical bores, especially for petrol and diesel engines. Includes dial-gauge and wooden case.

Measuring range: .....Ø 50-178 mm
Measuring depth: .....180 mm

KL-0128-31 Dial Gauge with Stands and Dial Indicator

Consists of **KL-0128-1** and **KL-0128-3**.

Strong rods of tool-steel, with fine adjustment for dial-gauge-clamp, prismatic magnetic base. Inclusive Dial Indicator Ø 58 mm and Wooden Case.

- To measure the distortion of the brake disc.
- For adjusting the engine and transmission.

KL-0128-3 Dial Gauge without Dial Indicator

As **KL-0128-31**, but without Dial Gauge indicator.

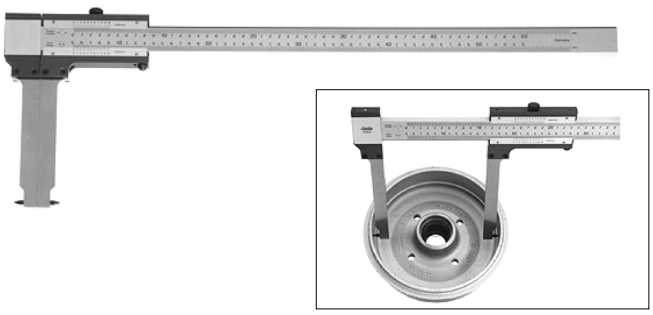
KL-0140-36 Slide Caliper digital

Open slide, hardened, with cross-points and depth gauge.
Description: stainless steel.

Range: .....155 mm
Jaw Length: ..... 40 mm
Vernier: .....0,01 mm
Weight: .....200 g

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KL-0140-32



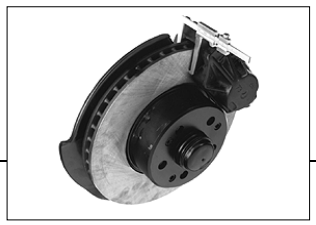
KL-0140-32 Slide Caliper for Brake Drum

Measuring-surfaces stainless steel, rule and slide produced of aluminium-profile, open slide, fixing-screw, vernier parallax free reading.

Range:..... 500 mm
Vernier:. 1/20 mm + 1/128"
Jaw Length:..... 250 mm
Weight: ..... 1200 g

KL-0140-33





KL-0140-33 Slide Caliper for Brake Disc

To measure the thickness of installed brake-discs. The tool is hardened and contains a locking screw.

Design: ..... stainless-steel
Range:..... 50 mm
Vernier:..... 1/10 mm
Jaw Length:..... 75 mm
Weight: ..... 110 g

KL-0140-38



KL-0140-38 Slide Caliper for Brake Disc

To measure the thickness of installed brake-discs. The tool is hardened and contains a locking screw.

Design: ..... Stainless-steel
Range:..... 100 mm
Vernier:..... 1/10 mm
Jaw Length:..... 120 mm
Weight: ..... 240 g

KL-0140-74



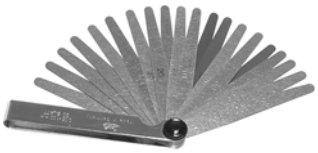


KL-0140-74 Tyre Tread Depth Gauge

Strong brass construction.

Range:..... 30 mm
Vernier:..... 50 g
Legible accuracy: 0,1 mm

KL-0140-76

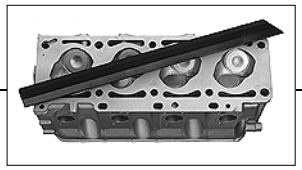


KL-0140-76 Feeler Gauge (20 Blade)

Range:.....0,05-1,00 mm in 0,05 mm increments.
Blade-Length:..... 100 mm
Weight: ..... 100 g

KL-0140-60





KL-0140-60 Precision-Hair-Edges 500 mm

Hair-edges hardened, ground, lapped, with heat-insulated handle. For fitting Cylinder Heads up to 4 Cylinders.

Design: .....stainless steel
Length: ..... 500 mm
Section: ..... 40 × 7 mm
Weight: ..... 960 g

KL-0140-61



KL-0140-61 Precision-Hair-Edges 600 mm

As **KL-0140-60** but for fitting Cylinder Heads up to 6 Cylinders.

Length: ..... 600 mm
Weight: ..... 1200 g

KL-0140-6101 Wooden Storage Case for Precision-Hair-Edges

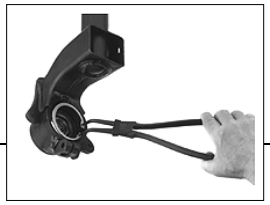
For storing the Precision-Hair-Edges **KL-0140-60** or **KL-0140-61** (not ill.).

Length: ..... 625 mm
Weight: ..... 400 g

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KL-0192-5



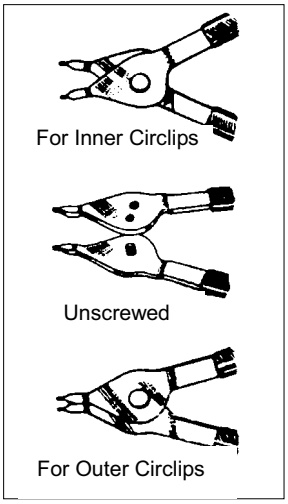


KL-0192-6



KL-0192-82 K





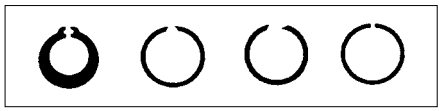


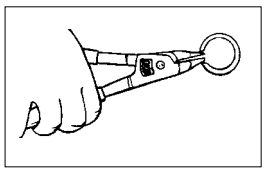
Outer Circlip
(for Shafts)



Inner Circlip
(for Bores)

Pliers for Special Safety Rings









KL-0192-823





KL-0192-824





KL-0192-825





KL-0192-826

KL-0192-5 Circlip Pliers Ø 40-100 mm

45° angled Tips make these Pliers ideal for inner-rings when repairing Gearboxes.

Tip-Ø:.....2,3 mm
Length:.....220 mm

KL-0192-6 Circlip Pliers Ø 85-165 mm

The special form of the Tips (45° off-set) allows quick and easy removal and replacement of Inner-rings during wheel-bearing repairs

Tip-Ø:.....3,3 mm
Length:.....315 mm

KL-0192-82 K Circlip Pliers Set

10-piece Set, consisting of 8 Pliers and 2 Hooks
Pliers reversible for inner or outer Circlips with captive screw.

- Pliers reversible for inner or outer Circlips
- Pliers straight and angled
- Pliers with easy-grip handles
- Pliers of heat-treated spring-steel
  → light and handy
- Hooks straight and angled

Total weight:.....1.800 g

Technical Data:

Tip Form	Tip Ø [mm]	for Shaft Ø or Bore Ø [mm]	Length [mm]	Weight [g]
straight	1,0	3 - 10 / 8 - 25	150	65
angled	1,0	3 - 10 / 8 - 25	145	65
straight	1,3	10 - 25	150	65
angled	1,3	12 - 25	145	65
straight	1,8	19 - 60 / 19 - 60	195	120
angled	1,8	19 - 60 / 19 - 60	190	120
straight	2,3	40 - 100 /40 - 100	235	220
angled	2,3	40 - 100 /40 - 100	230	220

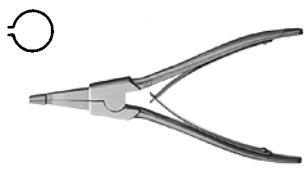
The Set is delivered in a Plastic Storage Case.

Pliers for Special Safety Rings

Part-No.	Application example	Tip-Form	Tip size [mm]	Long [mm]	Wgt. [g]
KL-0192-823	Large Rings on Drive Shafts in earth-movers and construction vehicles	Inter-change, wide, milled	3,5 × 8 spreading 8 - 75	330	490
KL-0192-824	Large Rings on Drive Shafts and steering racks, e.g. Opel/Vauxhall, VW-Audi	straight, pointed, short, milled	1,6 × 3,3 spreading 3,5 - 26	210	190
KL-0192-825	Deep, large Rings on Drive Shafts and Steering Shafts	straight, centerin g-rand, long, slim	2,4 × 4,2 spreading 5 - 40	240	210
KL-0192-826	Large Rings on Drive Shafts and Steering Shafts e.g. VW-Audi	straight with Hold profile	4 × 3,5 spreading 6,5 - 35	225	205

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KL-0192-11



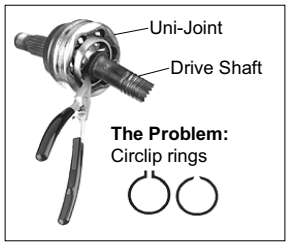
KL-0192-11 Circlip Pliers straight

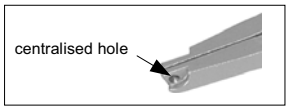
Suitable for **VW-Audi, Mercedes, Opel,** etc.

Tips are angled to 90°. The Pliers allow quick and easy removal and replacement of Outer-Rings during repairs to Motors, Transmissions, Differentials, Steering, etc.

KL-0192-12







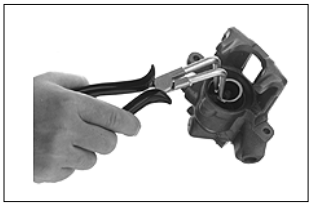
KL-0192-12 Circlip Pliers angled 30°

Suitable for **VW-Audi, Mercedes, Opel,** etc.

The Tips are angled at 30°, and are very thin with an additional centralised hole in the face of the Tip, which guarantees safe grip on Outer Rings. This is particularly important during repairs to Drive-Shafts/CV Joints, Motors and Transmissions.

KL-0192-7





KL-0192-7 Circlip Pliers angled 90°

For brake calipers and transmission, angled 90°.

Length: ..... 190 mm

Length of Flange: ..... 60 mm

KL-0192-24



KL-0192-24 Needle Nose Pliers straight (long version)

With extra long grip, for difficult to get to positions.

Length: ..... 280 mm

KL-0192-25



KL-0192-25 Needle Nose Pliers angled 45° (long version)

With extra long grip, angled 45°, for difficult to get to positions.

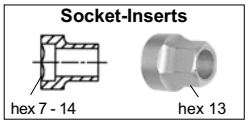
Length: ..... 280 mm

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KL-4443-Series



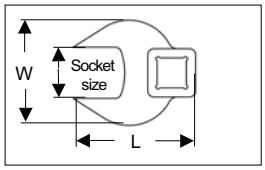
KL-4103-210



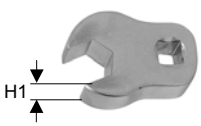


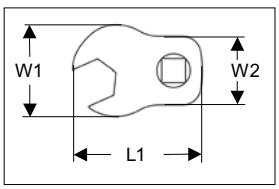
KL-4417-900





KL-0169-318 / KL-0169-321





KL-4443-901 Double Ring Spanner Set
Torx® (4 pcs.)

Special Chrome Vanadium Steel. matt chrome finish.

consists of:

Part-No.	Description
KL-4443-0608	Double Ring Spanner Torx E6 / E8
KL-4443-1012	Double Ring Spanner Torx E10 / E12
KL-4443-1418	Double Ring Spanner Torx E14 / E18
KL-4443-2024	Double Ring Spanner Torx E20 / E24

® = reg. trademark of Camcar-Textron Inc. USA

KL-4103-210 Special Socket Set

For quick and easy loosening and tightening of nuts and bolts in difficult to reach locations.

Advantages:

- Sockets with central bore for such applications as Studs, Hand Brake Cables, etc.
- Long Ratchet Handle, with very low profile (24 mm incl. socket), for use in very restricted spaces.
- Reversible direction - Left and Right.

Weight:.....950 g

Contents:

Part No.	Description	Size	Drive	Length	Qty.
KL-4103-2013	Ratchet Ring Spanner long		13 mm	400 mm	1
KL-4103-2107	Socket	7 mm	13 mm	20 mm	1
KL-4103-2108	Socket	8 mm	13 mm	20 mm	1
KL-4103-2109	Socket	9 mm	13 mm	20 mm	1
KL-4103-2110	Socket	10 mm	13 mm	20 mm	1
KL-4103-2111	Socket	11 mm	13 mm	20 mm	1
KL-4103-2112	Socket	12 mm	13 mm	20 mm	1
KL-4103-2113	Socket	13 mm	13 mm	20 mm	1
KL-4103-2114	Socket	14 mm	13 mm	20 mm	1
KL-4103-2150	Socket extension	13 mm	13 mm	50 mm	1
KL-4103-2190	Wooden case				1

KL-4417-900 Crow Foot Spanner Set

Special Chrome Vanadium Steel

Matt chrome finish Drive:..... 3/8"□

Specially designed to loosen and tighten nuts and bolts in confined spaces - e.g. Fuel Injector connections.

consists of:

Part No.	Description	Socket size	Width (W)	Length (L)	Weight (g)
KL-4417-16	Crow Foot Spanner	16 mm	34 mm	40 mm	40 g
KL-4417-17	Crow Foot Spanner	17 mm	35 mm	42 mm	50 g
KL-4417-18	Crow Foot Spanner	18 mm	37 mm	45 mm	60 g
KL-4417-19	Crow Foot Spanner	19 mm	41 mm	48 mm	70 g
KL-4417-21	Crow Foot Spanner	21 mm	43 mm	51 mm	80 g

KL-0169-318 Open Ended Spanner Socket

Suitable for Steering Rack Opel Vectra B, etc.

Extra-strong version, ideal for unscrewing or turning track rods.

Drive:..... 1/2" □

Part-No.	Hex	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Weight [g]
KL-0169-318	18	70 mm	20 mm	45,5 mm	32 mm	300

KL-0169-321 Open Ended Spanner Socket

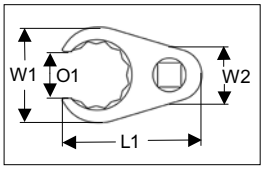
As **KL-0169-318** but with hex 21 mm e.g. suitable for Steering Rack Opel Sintra, etc. Drive:..... 1/2" □

Part-No.	Hex	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Weight [g]
KL-0169-321	21	70 mm	20 mm	49,5 mm	37 mm	330

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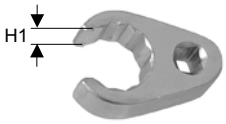
KL-4072-301

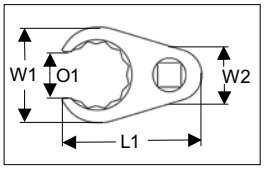




½"

KL-4072-302

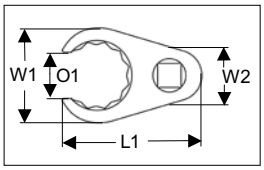




½"

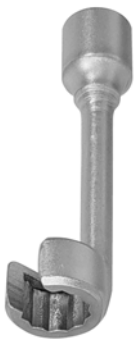
KL-4072-401





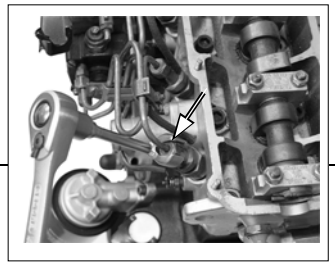
¾"

KL-4072-321





½"



KL-4071-311





½"

KL-4072-301 Open ended ring spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened. Drive: .....1/2" ☐

consists of:

Part-No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	15,5 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

KL-4072-302 Open ended ring spanner Socket Set

As **KL-4072-301,** but Drive: .....1/2" ☐

consists of:

Part-No.	Hex (12-point)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3027	27	74 mm	25 mm	48 mm	34 mm	20 mm	360
KL-4072-3030	30	76 mm	25 mm	50 mm	34 mm	22,5 mm	360
KL-4072-3032	32	80 mm	25 mm	52 mm	34 mm	25 mm	360

KL-4072-401 Open ended ring spanner Socket Set

As **KL-4072-301,** but Drive: .....3/4" ☐

consists of:

Part-No.	Hex (12-point)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3036	36	106 mm	30 mm	66 mm	48 mm	26,5 mm	785
KL-4072-3041	41	110 mm	30 mm	70 mm	48 mm	29 mm	835
KL-4072-3046	46	115 mm	30 mm	75 mm	48 mm	33 mm	905

KL-4072-321 Open ended ring wrench Socket Set

Specially designed to loosen and tighten nuts and bolts in confined spaces - e.g. Fuel Injector connections.

Technical Data: Drive:..... 1/2" ☐ Length:..... 100 mm

consists of:

Part-No.	Hex (12-point)	Description
KL-4072-3214	14	Open Ended ring wrench Socket
KL-4072-3216	16	Open Ended ring wrench Socket
KL-4072-3217	17	Open Ended ring wrench Socket
KL-4072-3218	18	Open Ended ring wrench Socket
KL-4072-3219	19	Open Ended ring wrench Socket

KL-4071-311 Open ended ring wrench Socket Set

As **KL-4072-321** but as hex wrench and 80 mm long.

Technical Data: Length:..... 80 mm

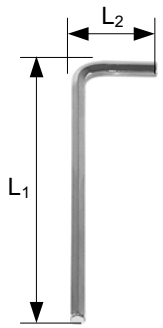
consists of:

Part-No.	Hex. (6-point)	Drive 3/8"	Drive 1/2"	Description
KL-4071-3112	12	X		Open Ended ring wrench Socket
KL-4071-3114	14	X		Open Ended ring wrench Socket
KL-4071-3116	16		X	Open Ended ring wrench Socket
KL-4071-3117	17	X		Open Ended ring wrench Socket
KL-4071-3118	18		X	Open Ended ring wrench Socket
KL-4071-3119	19		X	Open Ended ring wrench Socket

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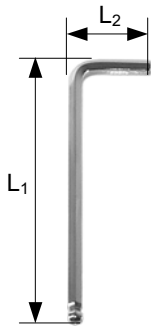
KL-4220-111

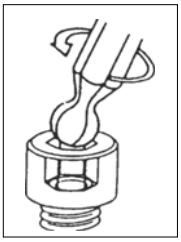




KL-4220-131

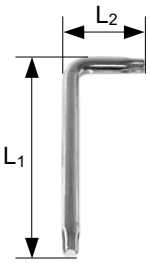






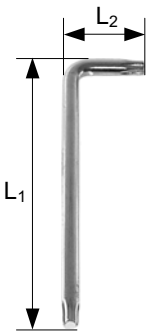
KL-4240-101





KL-4240-111





KL-4220-101 Allen Key Set short
(with collapsible holder)

10 pcs. Surface chrome (not illustrated) Weight:.....300 g

Hex (mm)	Length L_1	Length L_2
1,5	47 mm	16 mm
2	52 mm	18 mm
2,5	58 mm	20 mm
3	66 mm	22 mm
4	74 mm	27 mm
5	85 mm	32 mm
6	96 mm	37 mm
8	108 mm	44 mm
10	122 mm	51 mm

KL-4220-111 Allen Key Set long
(with collapsible holder)

10 pcs. Surface chrome Weight:.....390 g

Hex (mm)	Length L_1	Length L_2
1,5	78 mm	16 mm
2	83 mm	18 mm
2,5	90 mm	20 mm
3	99 mm	22 mm
4	109 mm	27 mm
5	120 mm	32 mm
6	139 mm	37 mm
8	162 mm	41 mm
10	180 mm	47 mm

KL-4220-131 Allen "Ball" Key Set long
(with collapsible holder)

10 pcs. Surface chrome Weight:.....390 g

Hex (mm)	Length L_1	Length L_2
1,5	78 mm	16 mm
2	83 mm	18 mm
2,5	90 mm	20 mm
3	99 mm	22 mm
4	109 mm	27 mm
5	120 mm	32 mm
6	139 mm	37 mm
8	162 mm	41 mm
10	180 mm	47 mm

KL-4240-101 Torx® Key Set short
(with collapsible holder)

11 pcs. Surface chrome Weight:.....300 g

Torx®	Length L_1	Length L_2
T9	58 mm	21 mm
T10	62 mm	23 mm
T15	68 mm	25 mm
T20	73 mm	27 mm
T25	77 mm	29 mm
T27	83 mm	30 mm
T30	88 mm	32 mm
T40	96 mm	35 mm
T45	104 mm	40 mm
T50	114 mm	44 mm

KL-4240-111 Torx® Key Set long
(with collapsible holder)

11 pcs. Surface chrome Weight:.....370 g

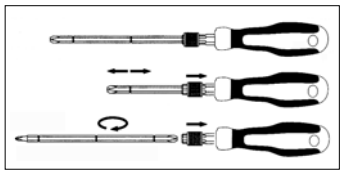
Torx®	Length L_1	Length L_2
T9	82 mm	19 mm
T10	88 mm	20 mm
T15	93 mm	22 mm
T20	99 mm	23 mm
T25	104 mm	25 mm
T27	110 mm	26 mm
T30	120 mm	30 mm
T40	131 mm	33 mm
T45	145 mm	37 mm
T50	180 mm	41 mm

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KL-4310-101 K

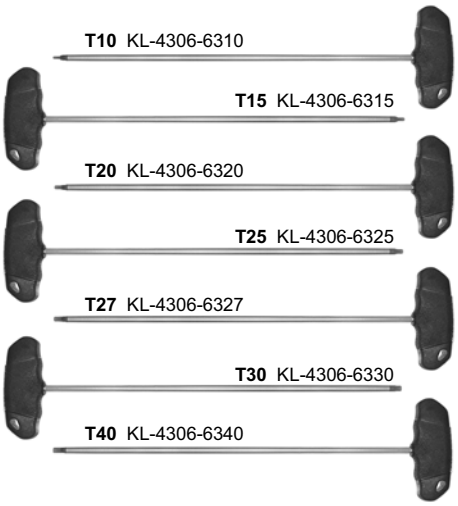




KL-4305-621



KL-4306-631

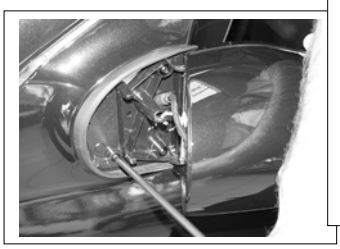


KL-4306-8320



Mercedes

5-Point





KL-4310-101 K Screwdriver Set
with inter-changeable blades

In plastic case.

The handle has a 1/4“ Blade Receiver and a hexagonal drive 10 mm.

The blades are lockable at lengths of 80 and 135 mm.

Torx® sizes : ..... T10, T15, T20, T25, T30 and T40.

Hex sizes : .....3, 4, 5 and 6

Straight sizes: .....4, 5, 6 and 7

Phillips sizes: .....PH.1, PH.2 and PH.3

Pozidriv sizes: .....PZ.1, PZ.2 and PZ.3

Weight:..... 660 g

KL-4305-621 Torx® Screwdriver Set (6 pcs.)

The long, slim design of the shaft allows deep-set Torx® Bolts to be reached without problem.

Consists of: T10, T15, T20, T25, T27, T30

Shaft Ø: T10 (4,5 mm); T15 (4,5 mm); T20 (4,5 mm); T25 (4,5 mm), T27 (5 mm); T30 (5,5 mm).

Shaft Length:..... 200 mm Overall length:..... 300 mm

Specially used for:

T20 removal and replacement of door-handles on **Mercedes A-** and **C-Class**.

T25 removal and replacement of **headlamps** on **VW Sharan** model year 2000 - onwards.

T30 for front wing bolts on **BMW 7 series (E38),** also removal and replacement of **headlamps** on **Audi A6**.

KL-4306-631 Torx® T-Handle Screwdriver Set (7 pcs.)

The long, slim design of the shaft allows deep-set Torx® Bolts to be reached without problem.

Shaft satin chrome finish with black tips.

Consists of: T10, T15, T20, T25, T27, T30, T40

Shaft Ø: T10 (6 mm); T15 (6 mm); T20 (6 mm); T25 (6 mm), T27 (6 mm); T30 (6 mm); T40 (7 mm)

Shaft Length:..... 350 mm Overall length:..... 385 mm

Specially used for:

T30 For front wing bolts on **BMW 7 series** (E38), also removal and replacement of headlamps on **Audi A6.**

T30/T40 For removal and replacement of oil-sump on **VW-Audi.**

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KL-4306-8320 T-Handle Screwdriver 5-Points (T20 x 260 mm)

Suitable for Mercedes.

The long and narrow shape of the **KL-4306-8320** 5-point screwdriver makes it ideal for removing and installing outside mirrors on Mercedes vehicles.

Note: (the following fastening screws are used on Mercedes vehicles with the outside mirror shown here)

OEM = Torx® T20 (KL-4306-6320) or 5-point T20
MB spare part = 5-point T20

Weight:..... 100 g Size:..... T20
Shaft Length:..... 255 mm Overall length:..... 295 mm

10

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KL-4347-830



KL-4004-240 K



KL-4004-229 (3/8"□)



KL-4004-329 (1/2"□)



hex10



KL-4024-70.. (30mm)



KL-4024-71.. (75 mm)





KL-4034-70.. (30mm)



KL-4034-71.. (75 mm)





KL-4044-70.. (30 mm)



KL-4044-71.. (75 mm)





KL-4347-830 Torx® Screwdriver Set (6 pcs.)

Chrome-vanadium-Steel. :.....100 mm

consists of:

Part-No.	Description	Qty
KL-4347-8304	Torx® Screwdriver E4 x 100 mm	1
KL-4347-8305	Torx® Screwdriver E5 x 100 mm	1
KL-4347-8306	Torx® Screwdriver E6 x 100 mm	1
KL-4347-8307	Torx® Screwdriver E7 x 100 mm	1
KL-4347-8308	Torx® Screwdriver E8 x 100 mm	1
KL-4347-8310	Torx® Screwdriver E10 x 100 mm	1

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KL-4004-240 K Bit Insert Set
Torx® / XZN / 10 mm Hex

Consists of:

KL-4004-229 Bit-Holder, ⬡ 10 mm hex; Drive 3/8"□ the carrier of the Inserts.

KL-4004-329 Bit-Holder, ⬡ 10 mm hex; Drive 1/2"□ the carrier of the Inserts.

Bit Inserts, Drive 10 mm hex; Length 30 mm

Part-No.	Size (hex)	Part-No.	Size (hex)
KL-4024-7004	hex 4	KL-4024-7008	hex 8
KL-4024-7005	hex 5	KL-4024-7010	hex 10
KL-4024-7006	hex 6	KL-4024-7012	hex 12
KL-4024-7007	hex 7		

Part-No.	Size	Part-No.	Size
KL-4034-7005	M5	KL-4034-7010	M10
KL-4034-7006	M6	KL-4034-7012	M12
KL-4034-7008	M8		

Part-No.	Size	Part-No.	Size
KL-4044-7020	T20	KL-4044-7045	T45
KL-4044-7025	T25	KL-4044-7050	T50
KL-4044-7030	T30	KL-4044-7055	T55
KL-4044-7040	T40	KL-4044-7060	T60

Bit Inserts, Drive 10 mm hex; Length 75 mm

Part-No.	Size (hex)	Part-No.	Size (hex)
KL-4024-7104	hex 4	KL-4024-7108	hex 8
KL-4024-7105	hex 5	KL-4024-7110	hex 10
KL-4024-7106	hex 6	KL-4024-7112	hex 12
KL-4024-7107	hex 7		

Part-No.	Size	Part-No.	Size
KL-4034-7105	M5	KL-4034-7110	M10
KL-4034-7106	M6	KL-4034-7112	M12
KL-4034-7108	M8		

Part-No.	Size	Part-No.	Size
KL-4044-7120	T20	KL-4044-7145	T45
KL-4044-7125	T25	KL-4044-7150	T50
KL-4044-7130	T30	KL-4044-7155	T55
KL-4044-7140	T40	KL-4044-7160	T60

KL-4004-2490 Plastic case (empty) for **KL-4004-240 K**

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KL-4040-100 K



Specification:

Magnetic Lifter with scriber



Screwdrivers



Double Ring Spanners



Sockets, Drive 1/2"□



Bit-Holder, Drive 1/2"□ auf hex 10



Bit-Inserts, Driver hex 10



Sockets, Driver 1/4"□



Bit-Holder, Driver 1/4"□ auf hex 1/4"



Bit-Inserts, Driver hex 1/4"



Torx® Keys



KL-4040-100 K Torx® Tool Set

Consists of:

Magnetic Lifter KL-0126-205:
Head-Ø 7,5 mm; 155 - 675 mm; Weight 28 g; lift-capacity 400 g

Screwdrivers:

Part-No.	Size	Part-No.	Size
KL-4040-1208	T8 x 80 mm	KL-4040-1225	T25 x 100 mm
KL-4040-1210	T10 x 100 mm	KL-4040-1227	T27 x 100 mm
KL-4040-1215	T15 x 100 mm	KL-4040-1230	T30 x 100 mm
KL-4040-1220	T20 x 100 mm	KL-4040-1240	T40 x 100 mm

Double Ring Spanners:

Part-No.	Size	Part-No.	Size
KL-4443-0608	E6 / E8	KL-4443-1418	E14 / E18
KL-4443-1012	E10 / E12	KL-4443-2024	E20 / E24

Sockets, Drive 1/2"□, Length 38 mm

Part-No.	Size	Part-No.	Size
KL-4040-1012	Torx® E12	KL-4040-1020	Torx® E20
KL-4040-1014	Torx® E14	KL-4040-1022	Torx® E22
KL-4040-1016	Torx® E16	KL-4040-1024	Torx® E24
KL-4040-1018	Torx® E18		

Bit-Holder hex10 KL-4004-329 Drive 1/2"□

Bit-Inserts, Drive hex 10; Length 30 mm

Part-No.	Size	Part-No.	Size
KL-4044-7040	Torx® T40	KL-4044-7055	Torx® T55
KL-4044-7045	Torx® T45	KL-4044-7060	Torx® T60
KL-4044-7050	Torx® T50		

Bit-Inserts, Drive hex 10; Length 75 mm

Part-No.	Size	Part-No.	Size
KL-4044-7115	Torx® T15	KL-4044-7145	Torx® T45
KL-4044-7120	Torx® T20	KL-4044-7150	Torx® T50
KL-4044-7125	Torx® T25	KL-4044-7155	Torx® T55
KL-4044-7130	Torx® T30	KL-4044-7160	Torx® T60
KL-4044-7140	Torx® T40		

Sockets, Drive 1/4"□, Length 23 mm

Part-No.	Size	Part-No.	Size
KL-4047-6004	Torx® E4	KL-4047-6008	Torx® E8
KL-4047-6005	Torx® E5	KL-4047-6010	Torx® E10
KL-4047-6006	Torx® E6	KL-4047-6011	Torx® E11
KL-4047-6007	Torx® E7		

Socket Inserts, Drive 1/4"□, Length 38 mm

Part-No.	Size	Part-No.	Size
KL-4041-1007	Torx® T7	KL-4041-1020	Torx® T20
KL-4041-1008	Torx® T8	KL-4041-1025	Torx® T25
KL-4041-1009	Torx® T9	KL-4041-1027	Torx® T27
KL-4041-1010	Torx® T10	KL-4041-1030	Torx® T30
KL-4041-1015	Torx® T15		

Bit-Holder hex 1/4" KL-4004-129 Drive 1/4"□

Bit-Inserts, Drive hex 1/4"

Part-No.	Size	Part-No.	Size
KL-4045-1007	Torx® T7B	KL-4045-1020	Torx® T20B
KL-4045-1008	Torx® T8B	KL-4045-1025	Torx® T25B
KL-4045-1009	Torx® T9B	KL-4045-1027	Torx® T27B
KL-4045-1010	Torx® T10B	KL-4045-1030	Torx® T30B
KL-4045-1015	Torx® T15B	KL-4045-1040	Torx® T40B

Torx® Keys

Part-No.	Size	Part-No.	Size
KL-4241-1008	Torx® T8	KL-4241-1030	Torx® T30
KL-4241-1010	Torx® T10	KL-4241-1040	Torx® T40
KL-4241-1015	Torx® T15	KL-4241-1045	Torx® T45
KL-4241-1020	Torx® T20	KL-4241-1050	Torx® T50
KL-4241-1025	Torx® T25	KL-4241-1055	Torx® T55
KL-4241-1027	Torx® T27	KL-4241-1060	Torx® T60

KL-4040-1090 Plastic case, for **KL-4040-100 K** (empty).

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KL-4044-701 K



KL-4004-229 (3/8"☐)



KL-4004-329 (1/2"☐)



KL-4044-70.. (30 mm)



KL-4044-71.. (75 mm)



KL-4047-60.. (23 mm)



KL-4047-20.. (23 mm)



KL-4045-35.. (40 mm)



KL-4054-701 K



KL-4004-229 (3/8"☐)



KL-4004-329 (1/2"☐)



KL-4054-70.. (30mm)



KL-4054-71.. (75 mm)



KL-4044-701 K Socket Insert Set Torx®

Consists of:

KL-4004-229 Bit-Holder, ⬡ hex 10 mm; Drive 3/8"☐ carrier for the screwdriver Inserts.

KL-4004-329 Bit-Holder, ⬡ hex 10 mm; Drive 1/2"☐ carrier for the screwdriver Inserts.

Bit-Inserts, Drive hex 10 mm; Length 30 mm

Part-No.	Size ✱	Part-No.	Size ✱
KL-4044-7020	T20	KL-4044-7045	T45
KL-4044-7025	T25	KL-4044-7050	T50
KL-4044-7030	T30	KL-4044-7055	T55
KL-4044-7040	T40		

Bit-Inserts, Drive hex 10 mm; Length 75 mm

Part-No.	Size ✱	Part-No.	Size ✱
KL-4044-7120	Torx® T20	KL-4044-7145	Torx® T45
KL-4044-7125	Torx® T25	KL-4044-7150	Torx® T50
KL-4044-7130	Torx® T30	KL-4044-7155	Torx® T55
KL-4044-7140	Torx® T40		

Sockets, Drive 1/4"☐, Length 23 mm

Part-No.	Size ⬡	Part-No.	Size ⬡
KL-4047-6004	Torx® E4	KL-4047-6007	Torx® E7
KL-4047-6005	Torx® E5	KL-4047-6008	Torx® E8
KL-4047-6006	Torx® E6		

Sockets, Drive 3/8"☐, Length 23 mm

Part-No:.	Size ⬡	Part-No.	Size ⬡
KL-4047-2010	Torx® E10	KL-4047-2012	Torx® E12
KL-4047-2011	Torx® E11	KL-4047-2014	Torx® E14

Sockets, Drive 1/2"☐, Length 40 mm

Part-No.	Size ⬡	Part-No.	Size ⬡
KL-4045-3516	Torx® E16	KL-4045-3522	Torx® E22
KL-4045-3518	Torx® E18	KL-4045-3524	Torx® E24
KL-4045-3520	Torx® E20		

Plastic case KL-4044-7099 (empty) for KL-4044-701 K.

® = reg. trademark of Camcar-Textron Inc. USA

KL-4054-701 K Socket Insert Set RIBE®

Consists of:

KL-4004-229 Bit-Holder, ⬡ hex 10 mm; Drive 3/8"☐ carrier for the screwdriver Inserts

KL-4004-329 Bit-Holder, ⬡ hex 10 mm; Drive 1/2"☐ carrier for the screwdriver Inserts

Bit-Inserts, Drive hex 10 mm; Length 30 mm

Part-No.	Size ✱	Part-No.	Size ✱
KL-4054-7004	M 4	KL-4054-7009	M 9
KL-4054-7005	M 5	KL-4054-7010	M 10
KL-4054-7006	M 6	KL-4054-7012	M 12
KL-4054-7007	M 7	KL-4054-7013	M 13
KL-4054-7008	M 8	KL-4054-7014	M 14

Bit-Inserts, Drive hex 10 mm; Length 75 mm

Part-No.	Size ✱	Part-No.	Size ✱
KL-4054-7104	M 4	KL-4054-7109	M 9
KL-4054-7105	M 5	KL-4054-7110	M 10
KL-4054-7106	M 6	KL-4054-7112	M 12
KL-4054-7107	M 7	KL-4054-7113	M 13
KL-4054-7108	M 8	KL-4054-7114	M 14

Plastic case KL-4054-7099 (empty) for **KL-4054-701 K**.

® = reg. trademark of Richard Bergner GmbH & Co. KG

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KL-4004-100 K



KL-4004-100 K Bit Insert Set 62 pcs.

Consists of:

Bit-Holder. 1/4" ○; Drive 1/4"□
insert holder.

Bit-Inserts:

⊕ Phillips (PH)	Size:	0; 1 (2 Pcs.); 2 (3 Pcs.); 3;
✱ Pozidriv (PZ)	Size:	0; 1 (2 Pcs.); 2 (2 Pcs.); 3;
⊖ Straight	Size:	3; 4; 4,5; 5,5; 6,5;
⬢ Hex.	Size:	2; 2,5; 3;4; 5; 6; 7; 8;
✿ 5-Point	Size:	T-10; T-15; T-20; T-25; T-27; T-30; T-40; T-45; T-50;
✱ RIBE®	Size:	M4; M5; M6; M7
✿ Torx®	Size:	7; 8; 9; 10; 15; 20; 25; 27; 30; 40;
✱ Torx®	Size:	7; 8; 9; 10; 15; 20; 25; 27; 30; 40;
✺ XZN	Size:	5; 6; 8;
Spanner	Size:	6; 8; 10

Plastic case

KL-4004-111



KL-4004-111 Bit-Driver, angled
1/4" and 5/16" with retaining magnet

Reversible for Left or Right rotation. With Drives for 5/16“ and 1/4" Bit Inserts. Each Bit-Drive has a knurled thumb-wheel for rapid insertion of bolts before final tightening. The Bit-Inserts are retained in the drive by a built-in magnet. Especially useful for difficult accessible places.

Technical Data:

Weight: ..... 120 g
Length: ..... 132 mm
Bit- Drive: ..... 1/4"
Bit- Drive: ..... 5/16“

KL-4004-112



KL-4004-112 Bit-Driver, straight
1/4" and 5/16" with retaining magnet

Reversible for Left or Right rotation. With Drives for 5/16“ and 1/4" Bit Inserts. Each Bit-Drive has a knurled thumb-wheel for rapid insertion of bolts before final tightening. The Bit-Inserts are retained in the drive by a built-in magnet. Especially useful for difficult accessible places.

Technical Data:

Weight: ..... 120 g
Length: ..... 140 mm
Bit- Drive: ..... 1/4"
Bit- Drive: ..... 5/16“

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KL-4004-120

1/4"



KL-4004-120 Flexible Bit Holder
with flexible extension, 1/4"

Especially useful for difficult accessible places.

Length Screw Driver : .....375 mm
Length Extension : .....135 mm
Bit- Drive: ..... 1/4"
Weight: .....250 g

KL-4004-130

1/4"



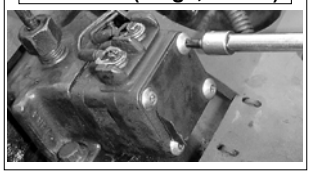
KL-4004-130 Bit Holder 1/4"

With Drives for 1/4" Bit Inserts.
The Bit-Inserts are retained in the drive by a built-in magnet.

Length: .....210 mm
Bit- Drive: ..... 1/4"
Weight: .....100 g

KL-4061-101

Mercedes (Atego, Actros)





Five point

VW-Audi,
Rover 75, MG ZT

KL-4061-101 Socket Insert Set
(Five point), 1/4"

Chrome Vanadium Steel

KL-4061-101 Socket Insert Set

consists of:

Part-No.	Five point	L1 [mm]	L2 [mm]	Weight [g]
KL-4061-1010	10	9	25	5
KL-4061-1015	15	9	25	5
KL-4061-1020	20	9	25	5
KL-4061-1025	25	9	25	5
KL-4061-1027	27	9	25	5
KL-4061-1030	30	9	25	5
KL-4061-1040	40	9	25	5
KL-4061-101 L	Storage Rail 1/4"			

KL-4064-601 K

VW-Audi, Mercedes,
Rover, MG



Five point

VW-Audi **airflow meters**.



Pumps for pump-line-injector systems on **Mercedes commercial vehicles**.



KL-4064-601 K Socket Insert Set (Five point)

9 screwdriver inserts in plastic case.

Suitable e.g. for:

- **VW-Audi airflow meter.**
- **Mercedes outside mirror.**
- **Immobiliser control unit (EWS3) on Rover 75 and MG ZT.**
- **Pumps in pump-line-injector systems on Mercedes commercial vehicles (e.g. Atego, Actros).**

For loosening and tightening the new five-point tamper-proof bolts with bore.

Consists of:

9x Bit Insert, Drive hex. 1/4".

1x Bit-holder, O Hex. 1/4"; Drive □ 1/4"
(to insert the screwdriver bits)

1x Plastic case

- Total weight: .....100 g
- Size: 10, 15, 20, 25, 27, 30, 40, 45, 50
- Drive (Insert): .....O hex. 1/4"
- Drive (Bit Holder): ..... □ 1/4"
- Length (Insert):.....25 mm
- Dimension (Plastic case).....114 x 53 x 21 mm

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KL-4031-300 K



KL-4031-30.. (1/2"☐, 55 mm) **KL-4031-31..** (1/2"☐, 100 mm)

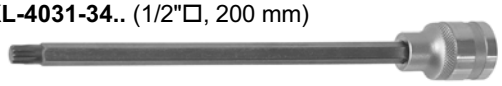




KL-4031-33.. (1/2"☐, 140 mm)



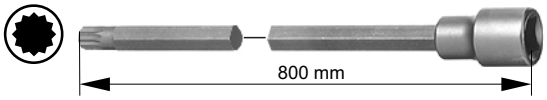
KL-4031-34.. (1/2"☐, 200 mm)



KL-0232-1

Extra long

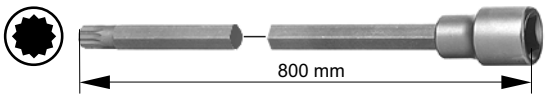
VW-Audi



KL-0232-2

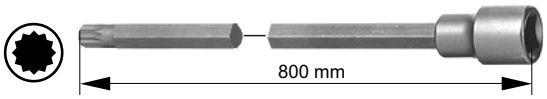
Extra long

VW-Audi

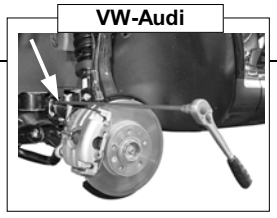


KL-0232-3

Extra long

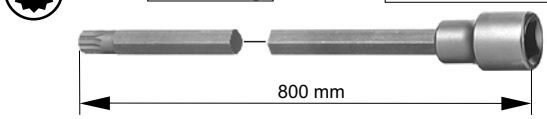


VW-Audi



KL-0232-4

Extra long



KL-0231-2



VW-Audi



Oil Drain Plug

KL-4031-300 K Socket Insert Set
Drive 1/2", XZN, 26 Pcs.

Consists of:

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4031-3005	M5	KL-4031-3010	M10
KL-4031-3006	M6	KL-4031-3012	M12
KL-4031-3008	M8	KL-4031-3014	M14
KL-4031-3009	M9	KL-4031-3016	M16

Socket Inserts, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4031-3105	M5	KL-4031-3110	M10
KL-4031-3106	M6	KL-4031-3112	M12
KL-4031-3108	M8	KL-4031-3114	M14
KL-4031-3109	M9		

Socket Inserts, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4031-3305	M5	KL-4031-3310	M10
KL-4031-3306	M6	KL-4031-3312	M12
KL-4031-3308	M8	KL-4031-3314	M14
KL-4031-3309	M9		

Socket Inserts, Drive 1/2"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4031-3408	M8	KL-4031-3412	M12
KL-4031-3410	M10	KL-4031-3414	M14

KL-4031-3099 **Plastic case** (empty) for KL-4031-300 K.

KL-0232-1 Socket Insert XZN M8

For loosening the screws at the drive shaft quick and easy from outside → Increased job time saving.
Not permitted for the use of impact guns.
Application: **VW-Audi**, etc.
Length: ..... 800 mm Drive: ..... ½"☐

KL-0232-2 Socket Insert XZN M10

Application as **KL-0232-1**.
Especially for **VW Golf IV** etc.
Length: ..... 800 mm Drive: ..... ½"☐

KL-0232-3 Socket Insert XZN M12

Application as **KL-0232-1**.
Especially for **VW T4, Touareg** etc.
Length: ..... 800 mm Drive: ..... ½"☐

KL-0232-4 Socket Insert XZN M14

Application as **KL-0232-1**.
Especially for **VW T4, Touareg** etc.
Length: ..... 800 mm Drive: ..... ½"☐

KL-0231-2 Special Socket Insert XZN M16

For removal and replacement of the Gear Box drain plug.
Application: Audi A3, A4, A6; VW Golf IV, LT.
Length: ..... 60 mm Drive: ..... ½"☐

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KL-4051-300 K



KL-4051-30.. (1/2"☐, 55 mm) **KL-4051-31..** (1/2"☐, 100 mm)





KL-4051-33.. (1/2"☐, 140 mm)



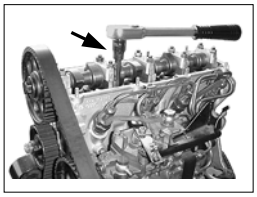
KL-4051-34.. (1/2"☐, 200 mm)



KL-4051-331 A

Fiat





KL-4051-3310

VW-Audi



KL-4051-300 K Socket Insert Set
Drive 1/2", RIBE®, 32 pcs.

Consists of:

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4051-3005	M5	KL-4051-3010	M10
KL-4051-3006	M6	KL-4051-3012	M12
KL-4051-3007	M7	KL-4051-3013	M13
KL-4051-3008	M8	KL-4051-3014	M14
KL-4051-3009	M9		

Socket Inserts, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4051-3105	M5	KL-4051-3110	M10
KL-4051-3106	M6	KL-4051-3112	M12
KL-4051-3107	M7	KL-4051-3113	M13
KL-4051-3108	M8	KL-4051-3114	M14
KL-4051-3109	M9		

Socket Inserts, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4051-3308	M8	KL-4051-3312	M12
KL-4051-3309	M9	KL-4051-3313	M13 (FIAT)
KL-4051-3310	M10 (VW)	KL-4051-3314	M14
KL-4051-3311	M10 (FIAT)		

Socket Inserts, Drive 1/2"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4051-3408	M8	KL-4051-3412	M12
KL-4051-3409	M9	KL-4051-3413	M13 (FIAT)
KL-4051-3410	M10 (VW)	KL-4051-3414	M14
KL-4051-3411	M10 (FIAT)		

KL-4051-3099 **Plastic case** (empty) for KL-4051-300 K.

KL-4051-331 A Socket Insert Set-
Drive 1/2",RIBE®

To remove and re-tighten cylinder-head retaining bolts e.g. on **Fiat** engines with RIBE-profile.

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4051-3007	M7	KL-4051-3008	M8

Socket Inserts, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4051-3311	M10 (FIAT)	KL-4051-3313	M13 (FIAT)
KL-4051-3312	M12	KL-4051-3314	M14

KL-4051-3310 Socket Insert
RIBE® M10 1/2" (length 140 mm)

Ideal to remove and re-tighten cylinder-head retaining bolts on **VW-Audi** engines with RIBE similar profile.

Drive: ..... 1/2"☐ Length: ..... 140 mm

® = reg. trademark of Richard Bergner GmbH & Co. KG

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KL-4041-361 K



KL-4041-300 K



KL-4041-30.. (1/2"☐, 55 mm) **KL-4041-31..** (1/2"☐, 100 mm)

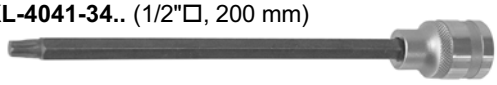




KL-4041-33.. (1/2"☐, 140 mm)



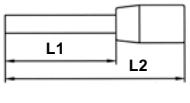
KL-4041-34.. (1/2"☐, 200 mm)



® = reg. trademark of Camar-Textron Inc. USA

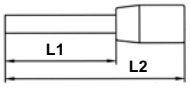
KL-4041-33..





KL-4045-33..





KL-4041-361 K Socket Insert Set Torx®

Strong sockets complete with plastic box. Application for repairs on axles and engines.

Socket Inserts, Drive 1/2"☐, Length 78 mm

Part-No.	Size	Part-No.	Size
KL-4041-3630	T30	KL-4041-3655	T55
KL-4041-3640	T40	KL-4041-3660	T60
KL-4041-3645	T45	KL-4041-3670	T70
KL-4041-3650	T50		

KL-4041-300 K Socket Insert Set
Drive 1/2", Torx®, 32 pcs.

Consists of:

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4041-3020	T20	KL-4041-3045	T45
KL-4041-3025	T25	KL-4041-3050	T50
KL-4041-3027	T27	KL-4041-3055	T55
KL-4041-3030	T30	KL-4041-3060	T60
KL-4041-3040	T40	KL-4041-3070	T70

Socket Inserts, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4041-3120	T20	KL-4041-3145	T45
KL-4041-3125	T25	KL-4041-3150	T50
KL-4041-3127	T27	KL-4041-3155	T55
KL-4041-3130	T30	KL-4041-3160	T60
KL-4041-3140	T40	KL-4041-3170	T70

Socket Inserts, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4041-3340	T40	KL-4041-3355	T55
KL-4041-3345	T45	KL-4041-3360	T60
KL-4041-3350	T50	KL-4041-3370	T70

Socket Inserts, Drive 1/2"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4041-3440	T40	KL-4041-3455	T55
KL-4041-3445	T45	KL-4041-3460	T60
KL-4041-3450	T50	KL-4041-3470	T70

KL-4041-3099 **Plastic case** (empty) for KL-4041-300 K.

KL-4041-33.. Socket Inserts

Chrome-vanadium-Steel. Drive:.....1/2" ☐

Part-No.	Torx®	L1 [mm]	L2 [mm]	Weight [g]
KL-4041-3380	T80	100	140	250
KL-4041-3390	T90	100	140	270
KL-4041-3391	T100	100	140	300

KL-4045-33.. Socket Inserts

Chrome-vanadium-Steel. Drive:.....1/2" ☐

Part-No.	Torx®	L1 [mm]	L2 [mm]	Weight [g]
KL-4045-3380	T80	100	140	250
KL-4045-3390	T90	100	140	270
KL-4045-3391	T100	100	140	300

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KL-4041-302 K



KL-4041-30.. (1/2"☐, 55 mm)



KL-4021-30.. (1/2"☐, 55 mm)



KL-4045-312 K



KL-4041-140



KL-4041-240



KL-4041-302 K Socket Insert Set
Drive 1/2", Torx® / Hex

Socket Inserts, Drive: 1/2"☐, Length: 55 mm

Part-No.	Size	Part-No.	Size
KL-4041-3030	T30	KL-4041-3055	T55
KL-4041-3040	T40	KL-4041-3060	T60
KL-4041-3045	T45	KL-4041-3070	T70
KL-4041-3050	T50		

Socket Inserts, Drive: 1/2"☐, Length: 55 mm

Part-No.	Size	Part-No.	Size
KL-4021-3005	M5	KL-4021-3010	M10
KL-4021-3006	M6	KL-4021-3012	M12
KL-4021-3007	M7	KL-4021-3014	M14
KL-4021-3008	M8		

® = reg. trademark of Camcar-Textron Inc. USA

KL-4045-312 K Socket Insert Set Torx®

Set of Torx® Sockets in extended length for tamper-proof bolts Torx® with pilot.

Socket Inserts, Drive: 1/2"☐, Length: 100 mm

Part-No.	Size	Part-No.	Size
KL-4045-3130	T30	KL-4045-3155	T55
KL-4045-3140	T40	KL-4045-3160	T60
KL-4045-3145	T45	KL-4045-3170	T70
KL-4045-3150	T50		

KL-4041-140 Socket Insert Set
Drive 1/4", Torx®

Socket Inserts, Drive: 1/4"☐, Length: 200 mm

Part-No.	Size	Part-No.	Size
KL-4041-1407	T7	KL-4041-1420	T20
KL-4041-1408	T8	KL-4041-1425	T25
KL-4041-1409	T9	KL-4041-1427	T27
KL-4041-1410	T10	KL-4041-1430	T30
KL-4041-1415	T15	KL-4041-1440	T40

Chrome-vanadium-Steel.

KL-4041-240 Socket Insert Set
Drive 3/8", Torx®

Socket Inserts, Drive: 3/8"☐, Length: 200 mm

Part-No.	Size	Part-No.	Size
KL-4041-2410	T10	KL-4041-2430	T30
KL-4041-2415	T15	KL-4041-2440	T40
KL-4041-2420	T20	KL-4041-2445	T45
KL-4041-2425	T25	KL-4041-2450	T50
KL-4041-2427	T27	KL-4041-2455	T55

Chrome-vanadium-Steel.

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KL-4046-220 K



KL-4047-61.. (1/4"☐, 50 mm)



KL-4047-21.. (3/8"☐, 55 mm)



KL-4047-61.. (1/4"☐, 50 mm)



KL-4047-140



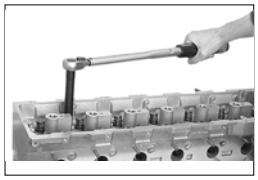
KL-4047-240



KL-4046-362

BMW, Mercedes





KL-4046-220 K Socket Set
Drive 1/4" / 3/8", Torx®

Extra long and slim design.

Sockets, Drive 1/4"☐, Length 50 mm

Part-No.	Size	Part-No.	Size
KL-4047-6104	E4	KL-4047-6107	E7
KL-4047-6105	E5	KL-4047-6108	E8
KL-4047-6106	E6	KL-4047-6110	E10

Sockets, Drive 3/8"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4047-2111	E11	KL-4047-2116	E16
KL-4047-2112	E12	KL-4047-2118	E18
KL-4047-2114	E14		

KL-4004-329 Reducer 3/8" to 1/4" Length 26,5 mm

KL-4046-2299 Plastic case (empty) for KL-4026-220 K

KL-4047-140 Socket Set Torx® 1/4"

Sockets, Drive 1/4"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4047-1404	E4	KL-4047-1407	E7
KL-4047-1405	E5	KL-4047-1408	E8
KL-4047-1406	E6	KL-4047-1410	E10

Chrome-vanadium-Steel.

KL-4047-240 Socket Set-Torx® 3/8"

Sockets, Drive 3/8"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4047-2406	E6	KL-4047-2410	E10
KL-4047-2407	E7	KL-4047-2411	E11
KL-4047-2408	E8	KL-4047-2412	E12

Chrome-vanadium-Steel.

® = reg. trademark of Camcar-Textron Inc. USA

KL-4046-362 Socket Set Torx® (4 Pcs.)

These Torx® Sockets in extended length with built-in magnet allow quick and easy removal and replacement of cylinder-head bolts with outer-Torx® profiles. **(e.g. BMW, Mercedes CDI engines, etc.)**

Sockets, Drive 1/2"☐, Length 150 mm

Part-No.	Size	Part-No.	Size
KL-4046-3610	E10	KL-4046-3614	E14
KL-4046-3612	E12	KL-4046-3618	E18

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KL-4041-302 K



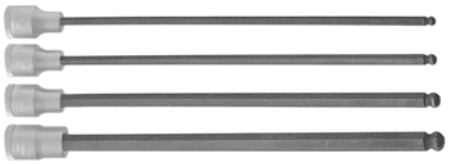
KL-4041-30.. (1/2"☐, 55 mm)

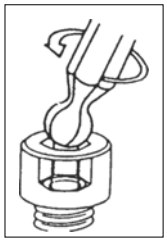


KL-4021-30.. (1/2"☐, 55 mm)



KL-4022-241





KL-4021-300 K



KL-4021-30.. (1/2"☐, 55 mm)



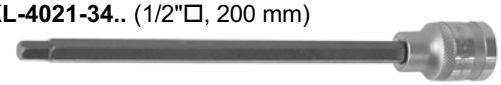
KL-4021-31.. (1/2"☐, 100 mm)



KL-4021-33.. (1/2"☐, 140 mm)



KL-4021-34.. (1/2"☐, 200 mm)



KL-4041-302 K Socket Insert Set
Drive 1/2", Torx® / Hex

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4041-3030	T30	KL-4041-3055	T55
KL-4041-3040	T40	KL-4041-3060	T60
KL-4041-3045	T45	KL-4041-3070	T70
KL-4041-3050	T50		

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4021-3005	hex 5 mm	KL-4021-3010	hex 10 mm
KL-4021-3006	hex 6 mm	KL-4021-3012	hex 12 mm
KL-4021-3007	hex 7 mm	KL-4021-3014	hex 14 mm
KL-4021-3008	hex 8 mm		

® = reg. trademark of Camcar-Textron Inc. USA

KL-4022-241 Socket Insert Set
"Ball head"

Extra-long design with ball head.
Ideal for unscrewing and tightening internal socket screws that sit very deep or are hard to access.

Socket Inserts, Drive 1/2"☐, Length 288 mm

Part-No.	Size	Part-No.	Size
KL-4022-2405	hex 5 mm	KL-4022-2408	hex 8 mm
KL-4022-2406	hex 6 mm	KL-4022-2410	hex 10 mm

Application examples:

KL-4022-2405 For oil sump bolts in VW T4 5-cylinder engines;

KL-4022-2408 Removal and installation of knock sensor on Audi V6 engines

KL-4021-300 K Socket Insert Set
Drive 1/2", Hex, 30 pcs.

Socket Inserts, Drive 1/2"☐, Length 55 mm

Part-No.	Size	Part-No.	Size
KL-4021-3005	5 mm	KL-4021-3012	12 mm
KL-4021-3006	6 mm	KL-4021-3014	14 mm
KL-4021-3007	7 mm	KL-4021-3017	17 mm
KL-4021-3008	8 mm	KL-4021-3019	19 mm
KL-4021-3010	10 mm		

Socket Inserts, Drive 1/2"☐, Length 100 mm

Part-No.	Size	Part-No.	Size
KL-4021-3105	5 mm	KL-4021-3110	10 mm
KL-4021-3106	6 mm	KL-4021-3111	11 mm
KL-4021-3107	7 mm	KL-4021-3112	12 mm
KL-4021-3108	8 mm	KL-4021-3113	13 mm

Socket Inserts, Drive 1/2"☐, Length 140 mm

Part-No.	Size	Part-No.	Size
KL-4021-3305	5 mm	KL-4021-3310	10 mm
KL-4021-3306	6 mm	KL-4021-3312	12 mm
KL-4021-3307	7 mm	KL-4021-3314	14 mm
KL-4021-3308	8 mm		

Socket Inserts, Drive 1/2"☐, Length 200 mm

Part-No.	Size	Part-No.	Size
KL-4021-3405	5 mm	KL-4021-3408	8 mm
KL-4021-3406	6 mm	KL-4021-3410	10 mm
KL-4021-3407	7 mm	KL-4021-3412	12 mm

KL-4021-3099 **Plastic case** (empty) for KL-4021-300 K

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KL-4011-281 K



3/8" ⬡

KL-0369-91



Mercedes CDI, Opel CDTI, Fiat/Lancia JTD

3/8" ⬡ hex. 8 mm

Glow Plug





KL-0369-92

3/8" ⬡ hex. 9 mm



Opel CDTI, Fiat JTD

KL-0369-14



3/8" ⬡ hex. 10 mm

KL-0369-9



3/8" ⬡ hex. 10 mm

KL-0369-7



3/8" ⬡ hex. 12 mm

KL-0369-12



3/8" ⬡ hex. 12 mm

KL-0127-42



3/8" ⬡ hex. 14 mm

KL-4011-281 K Jointed Socket Set

With Special 6-point Flank-Drive Profile.

Jointed Sockets, Drive 3/8"☐, Length 55 mm

Part-No.	⬡ hex	Part-No.	⬡ hex
KL-4011-2810	10 mm	KL-4011-2815	15 mm
KL-4011-2811	11 mm	KL-4011-2816	16 mm
KL-4011-2812	12 mm	KL-4011-2817	17 mm
KL-4011-2813	13 mm	KL-4011-2818	18 mm
KL-4011-2814	14 mm	KL-4011-2819	19 mm

KL-4011-2890 **Plastic case** (empty) for KL-4011-281 K.

KL-0369-91 Jointed Glow Plug Socket 8 mm

With built-in O-ring.
Especially designed for easy removal and replacement of glow plugs.

Length: ..... 75 mm
Drive: ..... 3/8"☐
Hex.: ..... ⬡ 8 mm
Weight: ..... 90 g

Suitable for:

- **Mercedes CDI engines OM 640 and OM 642 e.g. A-Class (2004-onwards) [W169], B-Class [W245] etc.**
- **Opel 1,3 L CDTI engines e.g. Agila, Corsa C etc.**
- **Fiat 1,3 L JTD engine e.g. Doblo, Idea, Punto etc.**
- **Lancia 1,3 L JTD e.g. Ypsilon etc.**

KL-0369-92 Jointed Socket Glow Plugs 9 mm

With built-in O-ring.

Length: ..... 75 mm
Drive: ..... 3/8"☐
Hex.: ..... ⬡ 9 mm
Weight: ..... 90 g

Suitable for:

- **Opel 1,9 L CDTI engines e.g. Astra H, Signum, Vectra C etc.**
- **Fiat 1,9 L JTD 1,6V engine e.g. Stilo etc.**

KL-0369-14 Jointed Socket Glow Plugs 10 mm

With built-in retaining spring or O-ring
Designed especially for easy removal and replacement of glow plugs.
Application: **Mercedes CDI-Engines (OM611, 612, 613)**

Hex.: ..... 10 mm
Length: ..... 70 mm
Drive: ..... 3/8"☐

KL-0369-9 Jointed Glow Plug Socket 10 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex.: ..... 10 mm
Length: ..... 65 mm
Drive: ..... 3/8"☐

KL-0369-7 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring
Designed especially for easy removal and replacement of glow plugs.

Hex.: ..... 12 mm
Length: ..... 65 mm
Drive: ..... 3/8"☐

KL-0369-12 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex.: ..... 12 mm
Length: ..... 70 mm
Drive: ..... 3/8"☐

KL-0127-42 Jointed Spark-Plug Socket 14 mm

Length: ..... 80 mm
Drive: ..... 3/8"☐
Hex.: ..... ⬡ 14 mm
Weight: ..... 100 g

10

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KL-0127-41



3/8" ○

KL-0127-43



3/8" ○

KL-0127-44



3/8" ○

KL-0127-45



3/8" ○

KL-0127-46



3/8" ○

KL-4015-2016



3/8" ○

KL-4015-2021



3/8" ○

KL-4015-3016



1/2" ○

KL-4015-3021



1/2" ○

KL-0127-41 Spark-Plug Socket

Suitable for Renault Clio 1,2 16V; Twingo 1,2 16V etc.

Length:.....230 mm
Hex.:.....○ hex.14 mm
Drive:.....3/8" □

KL-0127-43 Spark-Plug Socket

Suitable for Citroën C5 HPI, Peugeot 406 HPI, Mini One etc.

Length:.....90 mm
Size:.....○ bihex. 14 mm
Drive:.....3/8" □

KL-0127-44 Spark-Plug Socket

Suitable for Citroën C5 HPI, Peugeot 406 HPI, Mini One etc.

Length:.....250 mm
Size:.....○ bihex. 14 mm
Drive:.....3/8" □

KL-0127-45 Spark-Plug Socket

Length:.....90 mm
Size:.....○ hex. 16 mm
Drive:.....3/8" □

KL-0127-46 Spark-Plug Socket

Length:.....250 mm
Size:.....○ hex. 16 mm
Drive:.....3/8" □

KL-4015-2016 Spark-Plug Socket Insert

Length:.....65 mm
Hex.:.....○ hex.16 mm
Drive:.....3/8" □

KL-4015-2021 Spark-Plug Socket Insert

Length:.....65 mm
Hex.:.....○ hex.21 mm
Drive:.....3/8" □

KL-4015-3016 Spark-Plug Socket Insert

Length:.....65 mm
Hex.:.....○ hex.16 mm
Drive:.....1/2" □

KL-4015-3021 Spark-Plug Socket Insert

Length:.....65 mm
Hex.:.....○ hex.21 mm
Drive:.....1/2" □

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KL-0100-6



KL-4007-311



Spare Part: KL-4007-3112 Hinged Head



KL-0015-0050-K



KL-0040-0050-K



KL-0043-85



KL-0100-6 Extension Length 600 mm

This tool is essential for works on gearbox, engine and on the exhaust system.

Drive:.....1/2"□ to 3/8"■

KL-4007-311 Breaker Bar 1/2" Length 620 mm

Extra long version with 180° joint.
Useable for extremely stubborn fastenings.

Technical Data:

Length total.: ..... 620 mm
Drive:.....1/2" □

Spare Part: KL-4007-3112 Hinged Head

KL-0015-0050 Wooden Storage Tray (empty)

To store Spring Compressors KL-0013, KL-0015 or KL-2000 with Jaws KL-1500-SP, KL-1510-SP, KL-1520-SP and KL-1561 as well as the Adaptor KL-1590-1.

KL-0015-0050-K Wooden Storage Tray complete with Tools

consists of:

Part No.	Description
KL-0015-100	Compressor Cylinder
KL-1500-SP	Jaws size 0 with Protective Inserts
KL-1510-SP	Jaws size 1 with Protective Inserts

Part No.	Description
KL-1520-SP	Jaws size 2 with Protective Inserts
KL-1561	Jaw size 6
KL-1590-1	Adaptor
KL-0015-0050	Storage Tray empty

KL-0040-0050 Wooden Storage Tray (empty)

To store the Bearing Puller Tool Sets KL-0040-3, KL-0040-5 or KL-0040-6 with the Press Tool KL-0041-3 and the Hydraulic Cylinder KL-0040-25.

KL-0040-0050-K Wooden Storage Tray complete with Tools

consists of:

Part No.	Description
KL-0040-5	Bearing Puller for Europ. & Jap. cars
KL-0040-25	Hydraulic Cylinder

Part No.	Description
KL-0041-3	Press Tool
KL-0040-0050	Storage Tray empty

KL-0043-8550 Wooden Storage Tray (empty)

To store the Hydraulic Press Tool Kits, KL-0043-821, KL-0043-822, KL-0043-823, KL-0043-851, KL-0043-852, KL-0043-853 or KL-0043-854.

KL-0043-85 Press Tool with hydr. Cyl. (17 t.) (short version)

consists of:

Part No.	Description
KL-0215-10	Hydraulic Cylinder 17 t
KL-0043-8510	Press Frame short
KL-0043-8206	Adaptor
KL-0043-8208	Rubber Ring

Part No.	Description
KL-0043-8295	Press Tube Set (Ø 26 - 68 mm)
KL-0043-8595	Press Tube Set short (Ø 26 - 68 mm)
KL-0043-8550	Storage Tray empty

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Plastic case



KL-4990-1004



KL-4990-1007



KL-4990-1017

KL-4999-100



Universal-plastic case with foamed material liner.

KL-4990-1004 Plastic case

Measurement:

outside: 275x230x83 mm (WxHxD)
inside: 261x175x77 mm (WxHxD)

KL-4990-1007 Plastic case

Measurement:

outside: 340x275x83 mm (WxHxD)
inside: 326x222x77 mm (WxHxD)

KL-4990-1017 Plastic case

Measurement:

outside: 450x360x106 mm (WxHxD)
inside: 437x295x100 mm (WxHxD)

KL-4999-100 Workshop trolley
with 7 Drawers

Sturdy and mobile workstation. Drawers are provided with single-locking device and central closure. Solid copper beech board spray-glued, large mobile frame with robust sliding wheels with double brake.

Technical Data:

Weight: ..... 125 kg
Dimensions: ..... W 1310 x H 925 x D 600 mm
Worktop: ..... W 1200 x H 25 x D 600 mm
Drawers (1x) ..... W 1035 x H 180 mm
Drawers (2x) ..... W 490 x H 135 mm
Drawers (4x) ..... W 490 x H 180 mm
Castors with brakes (2x): ..... Ø 125 mm
Fixed roller (2x): ..... Ø 125 mm

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Chapter 11 overview



11.1 Tools for Changing Springs and Shock Absorbers Page 11.1-01 to 11.1-02



11.2 Tools for the Steering System Page 11.2-01 to 11.2-08



11.3 Tools for Axle repairs Page 11.3-01 to 11.3-14
e.g. Wheels, Bearings, Hubs, Drive shafts etc.



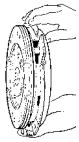
11.4 Tools for Silent Blocks and Bushes Page 11.4-01 to 11.4-14



11.5 Brake Service Tools Page 11.5-01 to 11.5-04



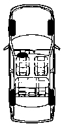
11.6 Engine Tools Page 11.6-01 to 11.6-16



11.7 Clutch Repair Tools Page 11.7-01 to 11.7-04



11.8 Transmission Tools Page 11.8-01 to 11.8-06

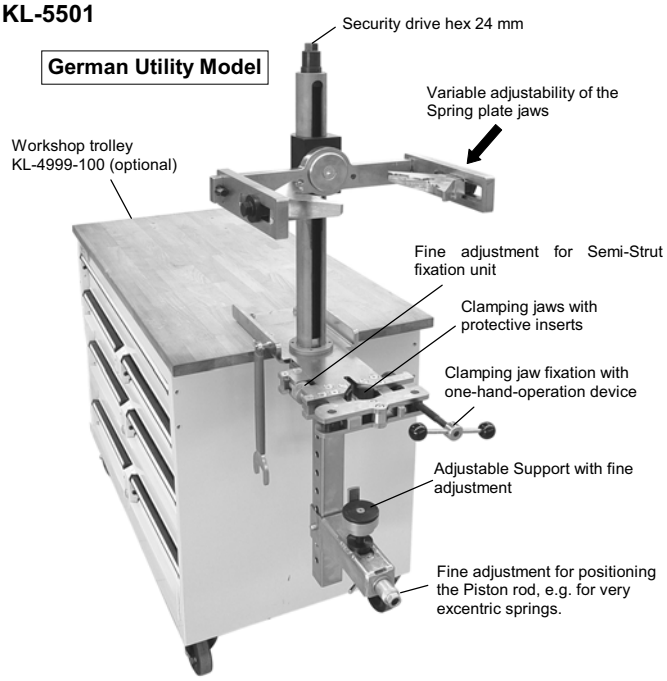


11.9 Body and Interior Tools Page 11.9-01 to 11.9-02

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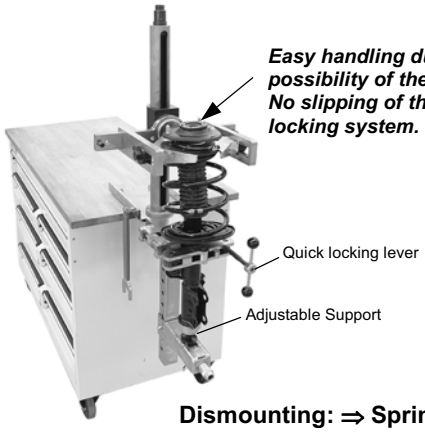
KL-5501

German Utility Model



Application Example:

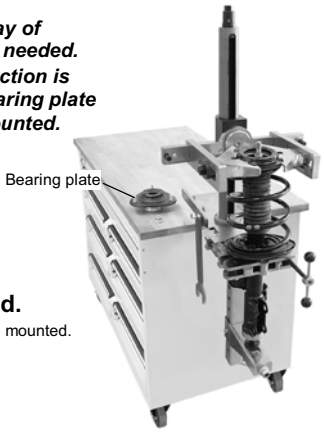
Dismounting: ⇒ Compressing the spring.



Easy handling due to shifting possibility of the jaws.
No slipping of the jaws due to self-locking system.

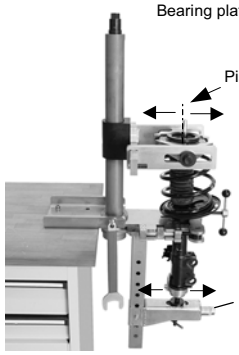
Dismounting: ⇒ Spring is compressed.

Very short way of compression needed.
Bolted connection is loosened, bearing plate can be dismounted.



Mounting: ⇒ Positioning the Piston rod.

Bearing plate can be mounted.



Exact alignment of the Piston rod whilst the spring is compressed.

KL-5501 Spring Compressor stationary

(German Utility Model)

Universal use for all MacPherson- and Semi-Struts e.g. with standard springs, right or left winded springs, excentrical springs or spring plates, conical springs, springs with small number of windings, high or different steepness of the coil winding.

As the spring and its upper seat are stressed against the lower spring seat, the spring shape or the spring gradient are no object. The variably settable spring cup seat, the adjustable support and retaining jig with single hand operation widen the field of application of the compressor to almost any spring and shock absorber while satisfying the highest security standard.

Advantages:

⇒ **No further accessories needed!**
Due to the special design of the jaws, the radial arms, respectively the swivelling bar, all the above mentioned Struts and Semi-Struts can be compressed without any additional accessories.

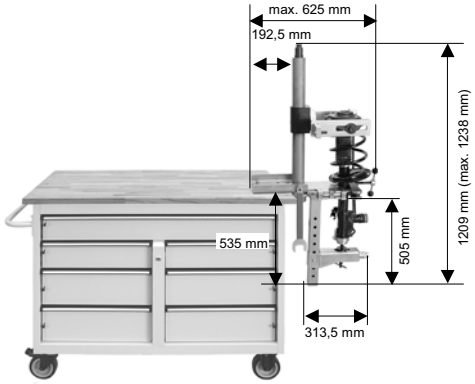
⇒ **No damage to the Strut tube!**
The special strut vise can be adjusted, through a knurled nut, quick and easy up to the correct diameter of the strut tube. (The tensioning bars should be parallel to each other). The clamping jaws are equipped with protective inserts.

⇒ **One-Man-Operation!**
The whole working operation can be done by one man only!
⇒ The Strut tube fixation unit is equipped with a quick locking and one-hand-operation device.

⇒ **Mobile due to the workshop trolley!**
The Stationary Spring Compressor is equipped with a fixation plate that allows to fix the Spring Compressor on a workshop trolley or a workbench. In combination with a workshop trolley it is possible to work beside the car.

Technical Data:

(see ill.)



Weight without trolley**: 46 kg**

Accessory:

KL-4999-100 Workshop trolley (without spring compressor)

Sturdy and mobile workstation. Drawers are provided with single-locking device and central closure. Solid copper beech board spray-glued, large mobile frame with robust sliding wheels with double brake.

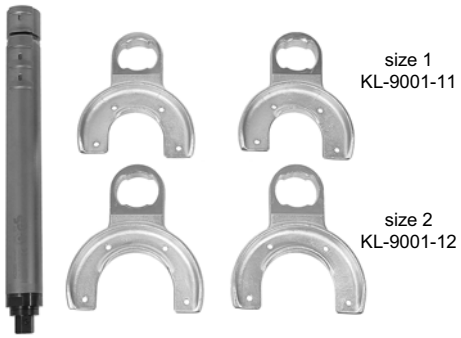
Technical Data:

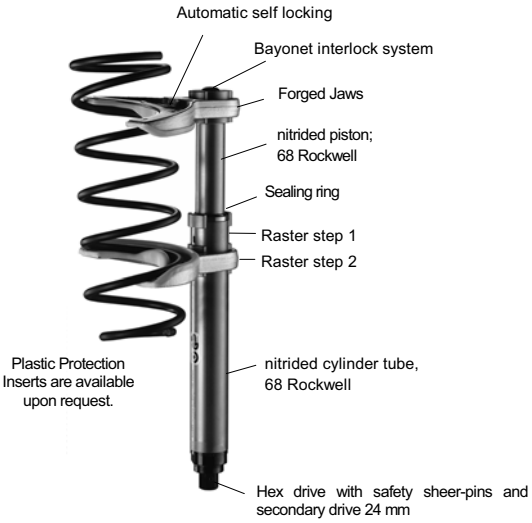
Weight:	125 kg
Dimensions:	W 1310 x H 925 x D 600 mm
Worktop:	W 1200 x H 25 x D 600 mm
Drawers (1x)	W 1035 x H 180 mm
Drawers (2x)	W 490 x H 135 mm
Drawers (4x)	W 490 x H 180 mm
Castors with brakes (2x):	Ø 125 mm
Fixed roller (2x):	Ø 125 mm

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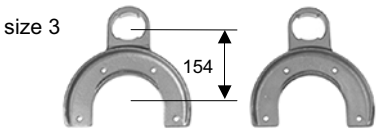
KL-9002 (Patented)

KL-9002-100





Special Jaws



KL-9001-13
Pair of jaws without protective inserts

KL-9001-13 SP
Pair of jaws with protective inserts

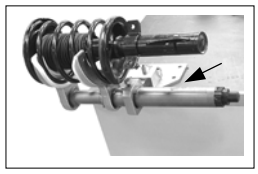
KL-0055-50 (German Utility Model)





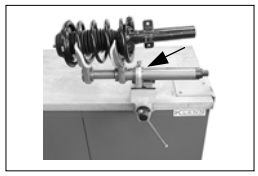
KL-9055-1





KL-9055-2





KL-9002 (Patented)
Telescopic Spring Compressor

Universal for vehicles with MacPherson Struts and Semi-Struts e.g. on:

- Alfa Romeo
- Audi
- BMW
- Chrysler
- Citroën
- Daewoo
- Daihatsu
- Fiat
- Ford
- GM
- Honda
- Hyundai
- Isuzu
- Jaguar
- Kia
- Lada
- Lancia
- Mazda
- Mercedes
- Mitsubishi
- Nissan
- Opel
- Peugeot
- Porsche
- Proton
- Renault
- Rover
- Saab
- Seat
- Škoda
- Smart
- Subaru
- Suzuki
- Ssang Yong
- Toyota
- Vauxhall
- Volvo
- VW

etc.

The spring compressor **KL-9002**, due to ist high tensile strength and big stroke, is suitable for four wheel drive vehicles, transporters and vans such as **Citroën Jumper; Fiat Ducato; Mercedes Vito, Class V, Class A, W210 4Matic; Peugeot Boxer, Break; Renault Master** etc.

Special jaws allow coil springs to be removed and replaced in wishbone suspensions provided access permits.

Max. Load 27 500 N *	
For Spring-Ø of 70-210 mm	

*at the official 4-times Safety-Factor, the maximum safe load KL-9002 is 27,500 N !!

Technical Data

Jaw separation **min. 40 mm** / **max. 377 mm**;
work way piston **305 mm**

Advantages:

- Patented spring support mounting with automatic snap-in.
- Patented clamping range adjustment.
- Drive safety system with secondary drive (German Utility Model).
- Automatic spindle free-wheel.
- Plastic protective inserts (patented).
- Also applicable for conic springs.

KL-9002 contains 2 pairs of spring holders (size 1+2), for spring-Ø of 100-175 mm. Further spring holder for spring-Ø of 70-210 mm available.

Further information about the spring compressor, accessory and spring holder - see allocation table chapter 1.

KL-9001-13 Pair of Jaws size 3

Suitable for e.g. Alfa Romeo, Audi, BMW, Chrysler, Citroën, Fiat, Ford, Kia, Lancia, Mazda, Mitsubishi, Nissan, Peugeot, Renault, Rover, Subaru, Toyota, Volvo etc.

For spring-Ø:.....165-210 mm Weight .....4,3 kg

KL-0055-50 Holding fixture for suspension struts (German utility model)

For MacPherson suspension struts, shock absorbers and steering system.

The clamping block is screwed into position on the workbench, and then permits a clean, safe and rapid repair to be carried out. Suspension strut shafts should NOT be clamped into a vice for assembly work (risk of distorsion).

KL-9055-1 Holding Fixture

Holding Fixture for the Spring Compressors **KL-9001** and **KL-9002**. The Fixture can rotate through 360° so allowing Struts to be clamped horizontally or vertically.

KL-9055-2 Holding Fixture

Holding Fixture suitable for the Spring Compressors **KL-9001** and **KL-9002**.

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KL-0165-3 K - Puller System with case

The right choice!

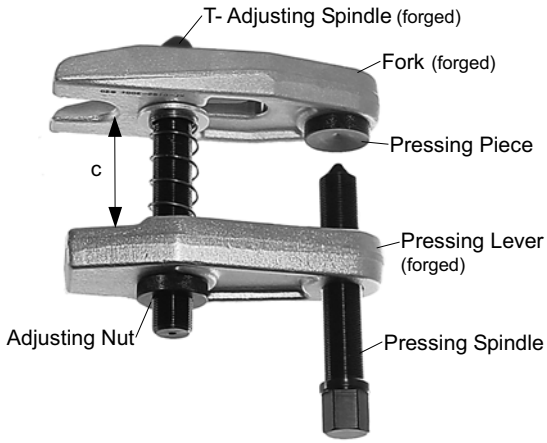


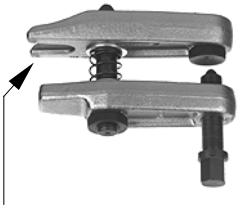
Suitable for Ball Joint Pivots.



Note: Specification and single parts see page 11.2-02

KL-0165-30





Dimension **c** may be reduced by rotation of the Fork.
KL-0165-1: $c_{max.}$= 65 mm



Forks inter-changeable by **90 degree rotation**.

KL-0165-3: $c_{max.}$= 70 mm

KL-0165-Series Puller System (Pat.)

Application: For all vans and trucks.

For removal of ball joints in suspension and steering systems.

The ever increasing use of ball-joints in suspension and steering systems found in today's vehicles has lead to the need for an ever-widening range of ball-joint splitters, due to the wide range of diameters and lengths of ball-joints.

In addition, the increasing use of conical ball-joint seats has lead to the need for increased stability and strength of ball-joint splitters to achieve easy separation. This ease of operation relies on the precise relationship between the angle of the pressure piece and the threaded bolt of the ball-joint.

The **KL-0165 Series Ball-Joint Separators** offer the mechanic a system of splitters which can be adjusted for both the angle of pressure and the diameter of the ball-joint. The angle is adjustable by a screw, while different diameters are handled by a series of inter-changeable forks.

Ball Joint Extractor size 1 (see Page 11.2-03)
For **trucks.**

Ball Joint Extractor size 2 (see Page 11.2-02)
For **small trucks.**

Ball Joint Extractor size 3 (see Page 11.2-02)
For **cars.**

Advantages:

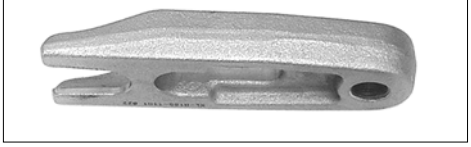
- The pressure fork is removed by a 90° rotation. Inter-changeable forks provide universal applications.
- Threaded adjustment allows exact positioning of the pivot to provide the exact angle of pressure.
- The pressure forks are located by an interlock with a T-form threaded spindle which offers a high degree of stability.
- By rotation of the pressure spindle, the tool may be operated from above or below, offering a real advantage where working space is limited.
- The pressure-spindle is driven by a 19mm hex provided with a safety shoulder to prevent the risk of accidents resulting from the spanner slipping.
- On the joint extractor size 3, by changing the forks, can be mounted six joint extractors having different fork openings.
- On the joint extractors size 1 or 2 can be mounted, simply by changing fork, five joint extractors having different fork opening.

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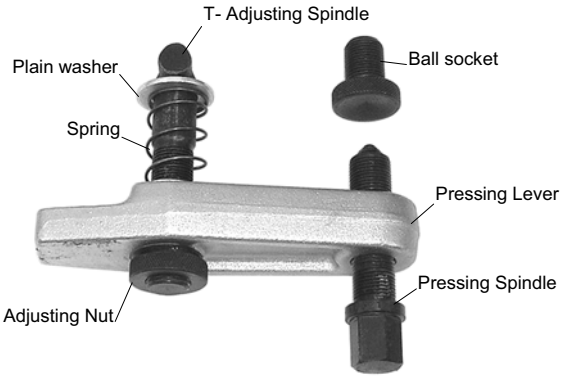
Cars up to small trucks

Patented

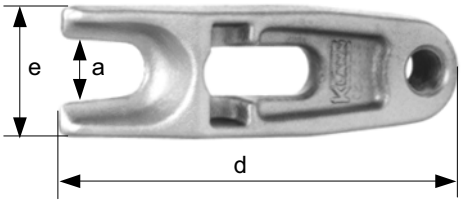
Fork size 1 or size 2



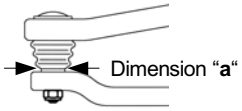
Base Tool KL-0165-100



Fork for KL-0165-Extractor-Series



Note: For determination of the suitable fork dimension “a”, please measure on the car (see ill.) and choose the appropriate fork.

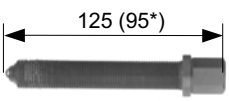


Accessories: Extended T-Adjusting Spindle and Pressing Spindle

KL-0165-1013
T-Adjusting Spindle M18×1,5



KL-0165-1014
Pressing Spindle M18×1,5



KL-0165-1 Ball Joint Extractor Set

For cars up to small trucks. (size 1 and size 2) Weight:.....10,5 kg

Part No.	Description
KL-0165-1	**Ball Joint Extractor Set**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm
KL-0165-2101	Fork a=24 mm e=60 mm d=165 mm
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm
KL-0165-1090	Plastic storage case

KL-0165-100 Base Tool without Fork

Pos.	Part No.	Description
	KL-0165-100	**Base Tool without Fork**
	consists of:	
1	KL-0165-1002	Pressing Lever
2	KL-0165-1003	T- Adjusting Spindle M18x1,5 x 110
3	KL-0165-1004	Pressing Spindle M18x1,5 x 70
4	KL-0165-1005	Ball socket
5	KL-0165-1006	Adjusting Nut M18x1,5
6	KL-0165-1007	Spring
7	KL-0165-1008	Plain washer Ø18

Ball Joint Extractor size 1

Part No.	Description
KL-0165-10	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
KL-0165-11	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
KL-0165-12	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
KL-0165-13	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
KL-0165-14	**Ball Joint Extractor size 1**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm

Ball Joint Extractor size 2

Part No.	Description
KL-0165-20	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm
KL-0165-21	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2101	Fork a=24 mm e=60 mm d=165 mm
KL-0165-22	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm
KL-0165-23	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm
KL-0165-24	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1.5)
KL-0165-2401	Fork a=34 mm e=60 mm d=165 mm
KL-0165-25	**Ball Joint Extractor size. 2**
consists of:	
KL-0165-100	Base Tool without fork (Spindles with thread M18×1,5)
KL-0165-2501	Fork a=24 mm e=60 mm d=165 mm

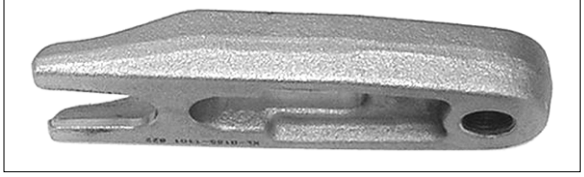
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KL-0165-3 A

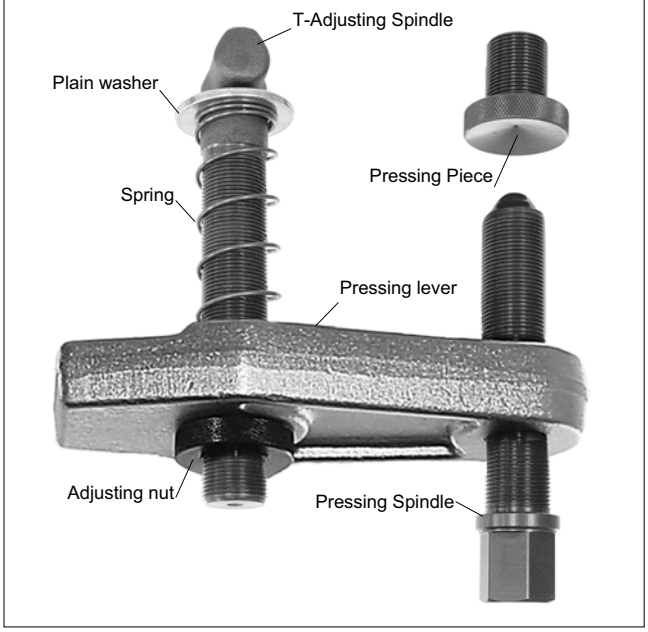


KL-0165-300

Fork size 3



Base Tool KL-0165-300



KL-0165-3 A Ball Joint Extractor Set
(with 6 forks) (Pat.)

Suitable for Mercedes HGV etc.

Ball Joint Extractor **KL-0165-3 A** is ideal for separating ball joints at axles and steering systems, and is particularly suitable for Mercedes commercial vehicles.

Part No.	Description	Qty.
KL-0165-3 A	**Ball Joint Extractor Set**	**1**
consists of:		
KL-0165-300	**Base Tool without fork (Spindles with thread M24x1,5)**	**1**
KL-0165-3001	Fork a=30 mm, e=80 mm, d=200 mm e.g. suitable for Landini-Tractors	1
KL-0165-3101	Fork a=34 mm, e=80 mm, d=200 mm	1
KL-0165-3201	Fork a=40 mm, e=80 mm, d=200 mm e.g. suitable for Mercedes, MAN, Scania, Volvo, etc.	1
KL-0165-3301	Fork a=42 mm, e=80 mm, d=200 mm e.g. suitable for Mercedes, MAN, Scania, Volvo, etc. and John Deere-Tractors	1
KL-0165-3401	Fork a=47 mm, e=80 mm, d=200 mm	1
KL-0165-3501	Fork a=30 mm, e=80 mm, d=200 mm e.g. suitable for MB Sprinter '95 onwards, VW LT '98 onwards Ball Joint, VW T4 Guide Joint etc.	1

KL-0165-300 Base Tool without fork

Part No.	Description
KL-0165-300	**Base Tool without fork**
consists of:	
KL-0165-3002	Pressing Lever
KL-0165-3013	T- Adjusting Spindle M24x1,5 x 180
KL-0165-3014	Pressing Spindle M24x1,5 x 135
KL-0165-3005	Ball socket
KL-0165-3006	Adjusting Nut M24x1,5
KL-0165-3007	Spring
KL-0165-3008	Plain washer Ø24

Ball Joint Extractor size 3 for trucks

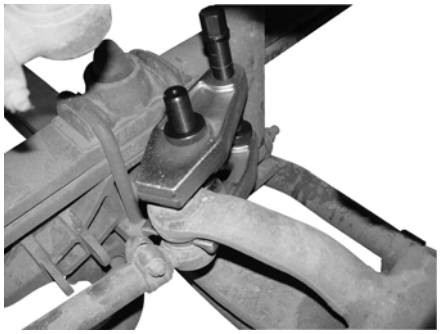
Part No.	Description
KL-0165-30	**Ball Joint Extractor size 3 suitable e.g. for MAN and Landini-Tractors**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3001	Fork a=30 mm e=80 mm d=200 mm
KL-0165-31	**Ball Joint Extractor size 3 suitable e.g. for MAN, Mercedes etc.**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3101	Fork I a=34 mm e=80 mm d=200 mm
KL-0165-32	**Ball Joint Extractor size 3 suitable e.g. for Mercedes, MAN, Scania, Volvo, etc.**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3201	Fork a=40 mm e=80 mm d=200 mm
KL-0165-33	**Ball Joint Extractor size 3 suitable e.g. for Mercedes, MAN, Scania, Volvo, etc. and John Deere-Tractors.**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3301	Fork a=42 mm e=80 mm d=200 mm
KL-0165-34	**Ball Joint Extractor size 3 Suitable e.g. for Mercedes bus, etc.**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5))
KL-0165-3401	Fork a=47 mm e=80 mm d=200 mm
KL-0165-35	**Ball Joint Extractor size 3 suitable e.g. for MB Sprinter '95 onwards, VW LT '98 onwards Ball Joint VW T4 Guide Joint etc.**
consists of:	
KL-0165-300	Base Tool without fork (Spindles with thread M24×1,5)
KL-0165-3501	Fork a=30 mm e=80 mm d=200 mm

* Values in brackets are for normal length components

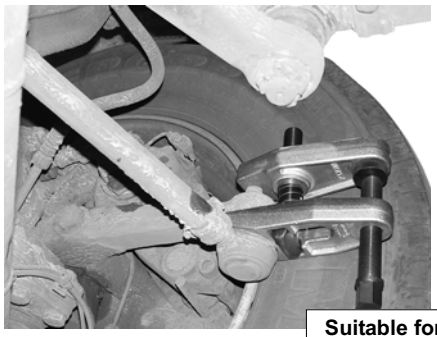
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Application Examples:

KL-0165-31
e.g. suitable for Mercedes Atego, Actros, Axor steering arm



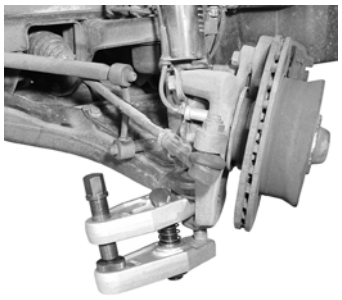
KL-0165-32
e.g. suitable for Mercedes-Bus



Suitable for Ball Joint Pivots

With inner Hex.  closed

KL-0165-35
e.g. suitable for MB Sprinter, VW LT '98 onwards, VW T4 guide joint

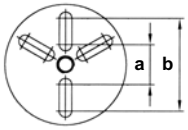


KL-0153-5 K

Universal







a = Ø 32 mm
b = Ø 90 mm

KL-0165-31 Ball Joint Extractor size 3

Suitable e.g. for Mercedes Atego, Actros, Axor steering arm, etc.

Advantage: Universal using.
Further informations see page 11.2-01.

consists of: (Fork opening a=34 mm)

Part No.	Description
KL-0165-300	Base tool without fork (Spindles with thread M24×1,5)
KL-0165-3101	Fork a=34 mm e=80 mm d=200 mm

Note:
Spare parts and further forks see page 11.2-03.

KL-0165-32 Ball Joint Extractor size 3

Suitable e.g. for Mercedes Bus, MAN, Scania, Volvo, etc.

Advantage: Universal using.
Further informations see page 11.2-01

consists of: (Fork opening a=40 mm)

Part No.	Description
KL-0165-300	Base tool without fork (Spindles with thread M24×1,5)
KL-0165-3201	Fork a=40 mm e=80 mm d=200 mm

Note:
Spare parts and further forks see page 11.2-03.

KL-0165-35 Ball Joint Extractor size 3

Suitable e.g. for Mercedes Benz Sprinter '95 onwards / VW LT '98 onwards ball joint and VW T4 guide joint etc.

Advantage: Universal using.
Further informations see page 11.2-01

consists of: (Fork opening a=30 mm)

Part No.	Description
KL-0165-300	Base tool without fork (Spindles with thread M24×1,5)
KL-0165-3501	Fork a=30 mm e=80 mm d=200 mm

Note:
Spare parts and further forks see page 11.2-03.

KL-0153-5 K Puller Set

Puller Set for Steering Wheels, Sprockets, Pulleys and Shafts, etc.

Range: .....**Ø 32 - Ø 90 mm**

Consists of:

Puller Disc: ..... Ø-110mm (2+3 Hole mounting) with Spindle.
Allen®-bolt: ..... M8x1,25 x 100 3 Pcs.
Allen®-bolt:..... M10x1,25 x 100 3 Pcs.
- Hex bolt:..... M8x1,25 x 80 3 Pcs.
- Hex bolt:..... M10x1,5 x 50 3 Pcs.
- Hex bolt:..... 1/4" UNF x 75 2 Pcs.
- Hex bolt:..... 5/16" UNF x 90 2 Pcs.
- Hex bolt:..... 5/16" UNC x 50 3 Pcs.
- Hex bolt:..... 5/16" UNC x 110 3 Pcs.
- Hex bolt:..... 3/8" UNF x 50 3 Pcs.
- Hex bolt:..... 3/8" UNC x 100 3 Pcs.

Washers:.....1/4"x19 2 Pcs.; 5/16"x18 3 Pcs.; 3/8"x20 3 Pcs.

The Set is delivered in Plastic Storage Case.

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KL-0153-2

Mercedes





KL-0153-2 Steering Wheel Puller

Suitable for **Mercedes** Transporters and trucks.

Allows easy removal of stubborn steering wheels without risk of damage to either steering column splines or the steering wheel.

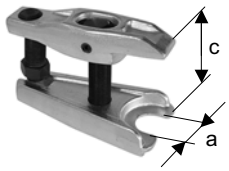
Adjusting Range:..... 40 - 88 mm Screws: ..... M10 x 60

Advantages of the puller tool:

- Due to the longitudinal grooves in the puller plate, this puller can be universally used as a two arm puller as well as a three arm puller.
- Flanged nut of the spindle prevents a slip off of the operating tool.
- No damage to the steering wheel during extraction.

KL-0162-2

Universal





KL-0162-2 Ball Joint Extractor

For quick and easy separation of ball joint connections.

Advantage:

Dimension c is infinitely adjustable so providing a wider range of application.

Part No.	a =	c =
KL-0162-2	conical 30 - 80 mm	adjustable up to 80 mm max.

KL-0160-Series





KL-0160-Series Separator Forks

The wedge profiled fork allows easy and quick loosening of conical seat ball-joints.

Also useful for removal of shock-absorbers and steering-column clamps.

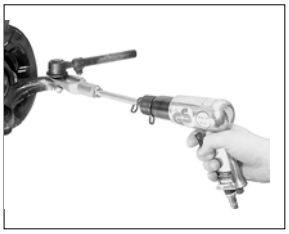
Warning: Separator Forks may damage the gaiter

Part-No.	a (fork opening) =
KL-0160-1	18 mm
KL-0160-2	23 mm
KL-0160-3	30 mm
KL-0160-4	40 mm

KL-0160-7 K

Universal





KL-0160-7 K Separator Fork Set

5 piece Separator Fork Set.

Consists of:

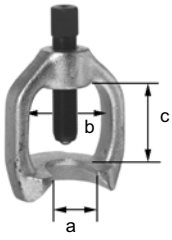
3 Fork heads with openings a = 17,5 mm, a = 23,5 mm und a = 28,5 mm, a 200 mm Handle and an Adaptor with 10 mm Ø Shaft and 175 mm Length, suitable for impact hammer.

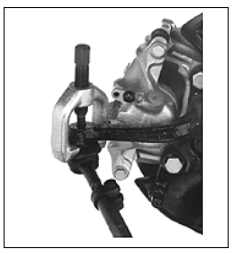
The wedge form of the Forks allow quick and easy dismantling of Ball-Joints from their conical seats.

The Set is delivered in Plastic Storage Case.

Warning: Separator Forks may damage the gaiter.

KL-0161-Series





KL-0161-Series Ball Joint Extractors

For splitting track-rod ends, anti-roll bar mountings, ball joints, etc.

Part No.	a =	b =	c =
KL-0161-1	18 mm	40 mm	35 mm
KL-0161-2	23 mm	50 mm	45 mm
KL-0161-3	29 mm	60 mm	55 mm
KL-0161-4	40 mm	80 mm	80 mm
KL-0161-5	46 mm	90 mm	100 mm

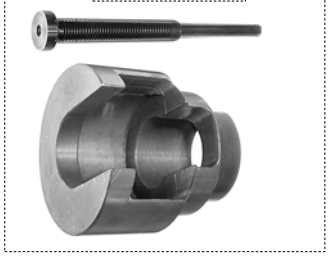
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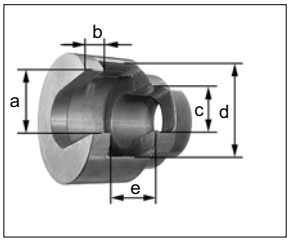
KL-0166-10

Universal HGV

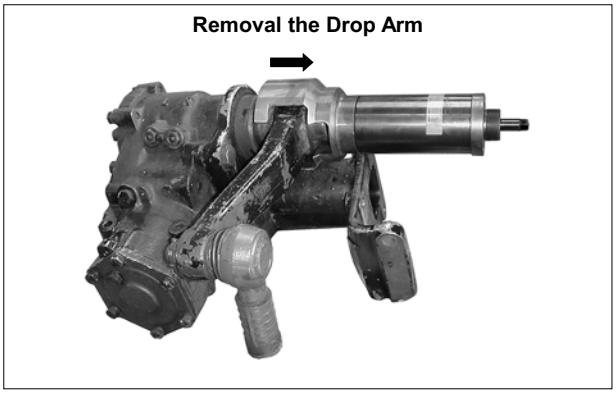


KL-0166-100





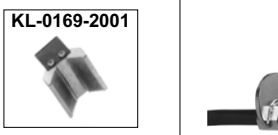
Removal the Drop Arm



Note:
An hydraulic pump (see Chapter 4) will be required to drive the **KL-0040-2500**.

KL-0169-2

universal



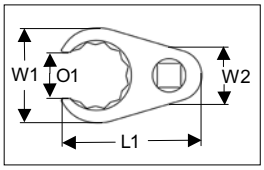




KL-4072-302 / KL-4072-401



½" ¾"



KL-0166-10 HGV Steering Arm Puller
with Hydraulic Cylinder (17 t.)

For quick and easy removal of Drop Arms from the steering box. Even really stubborn Drop Arms pose no problem.

consists of:

Part No:	Description
KL-0166-100	HGV Puller without Hydraulic Cylinder
KL-0040-2500	Hydraulic Cylinder 17 t.

KL-0166-100 Steering Arm Puller without Hydraulic Cylinder

consists of:

Part No:	Description
KL-0166-1001	Puller Housing
KL-0166-1002	Spindle

Technical Data:

a = ...55 mm b = ...19 mm
c = ...46 mm d = ...92 mm
e = ...51 mm
Total length Hydraulic Cylinder and Spindle.....350 mm
Connection Thread for Hydraulic Cylinder .....2¼"-14UNS

KL-0169-2 Track-Rod Adjusting Tool

For HGV's (trucks).

For loosening and adjusting stubborn Track-Rods.
Application: Track-Rods Ø 40-55 mm

Accessories:

KL-0169-2001 Adaptor for Track-Rods from Ø 25 mm upwards.

KL-4072-302 Open ended ring spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened, for instance on compressed air or hydraulic lines.

Drive:..... 1/2" □

consists of:

Part No.	Hex	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3027	27	74 mm	25 mm	48 mm	34 mm	20 mm	360
KL-4072-3030	30	76 mm	25 mm	50 mm	34 mm	22,5 mm	360
KL-4072-3032	32	80 mm	25 mm	52 mm	34 mm	25 mm	360

KL-4072-401 Open ended ring spanner Socket Set

As **KL-4072-302,** but with 3/4" □ drive.

consists of:

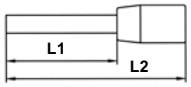
Part No.	Hex	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3036	36	106 mm	30 mm	66 mm	48 mm	26,5 mm	785
KL-4072-3041	41	110 mm	30 mm	70 mm	48 mm	29 mm	835
KL-4072-3046	46	115 mm	30 mm	75 mm	48 mm	33 mm	905

Note: Further Open Ended Spanner Sockets see Chapter 10.

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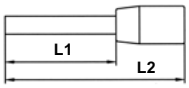
KL-4041-33..



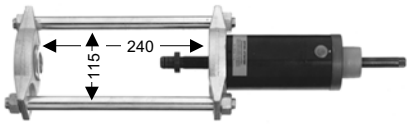


KL-4045-33..





KL-0043-855 C



Mercedes Sprinter VW LT

KL-0043-8591 C

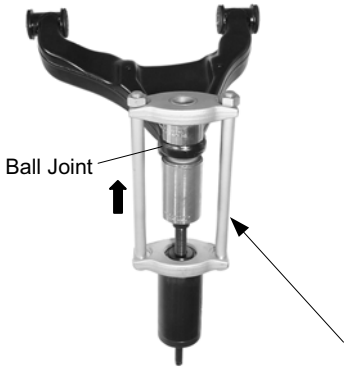


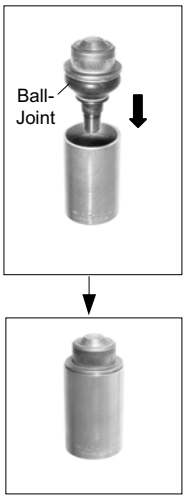
Ball Joint extraction.





Ball Joint insertion.





KL-4041-33.. Screwdriver-Inserts

For removal and replacement of steering gear mountings from the steering knuckle on MAN TGA.

Chrome-vanadium-Steel. Drive:.....1/2" □

Part No.	Torx®	L1 [mm]	L2 [mm]	Weight [g]
KL-4041-3380	T80	100	140	250
KL-4041-3390	T90	100	140	270
KL-4041-3391	T100	100	140	300

KL-4045-33.. Screwdriver-Inserts

Chrome-vanadium-Steel. Drive:.....1/2" □

Part No.	Torx®	L1 [mm]	L2 [mm]	Weight [g]
KL-4045-3380	**T80**	**100**	**140**	**250**
KL-4045-3390	**T90**	**100**	**140**	**270**
KL-4045-3391	**T100**	**100**	**140**	**300**

KL-0043-855 C Press Tool with hydr. Cyl. (17 t.) (Patented)

Suitable for: Mercedes Sprinter 1995-onwards and VW LT 1996-onwards.

The Press Tool Kit **KL-0043-855 C** allows quick, easy and safe extraction and replacement of the Ball-Joint in the lower front wishbone.
Replacement of the Ball-Joint is performed within a few minutes without the need to remove the wishbone from the vehicle.

Note: The lower wishbone and the ball-joint have been changed on Mercedes Sprinter and VW LT.
Two different lower wishbones with two different ball-joints are used.

Specification:

Part No:	Description	Qty.
KL-0043-855 C	**Press Tool with Hydraulic cylinder**	**1**
consists of:		
KL-0043-8510	Press Frame Short	1
KL-0040-2500	Hydraulic Cylinder (17t)	1
KL-0040-2510	Press Spindle	1
KL-0043-8591 C	Press/Support Tube Set	1

KL-0043-8591 C Press/Support Tube Set

consists of:

Part No:	Description	Qty.
KL-0043-8236-1	Support Tube (Ø60 mm)	1
KL-0043-8236-2	Support Tube (Ø62 mm)	1
KL-0043-8236-3	Tension Ring	1
KL-0043-8236-4	Allen Bolt M10 x 120	3
KL-0043-8236-5	Distance Tube	1
KL-0043-8531	Press Tube	1
KL-0043-8279	Press/Support Tube (Ø 64 mm)	1
KL-0043-8578	Press/Support Tube short (Ø 62 mm)	1

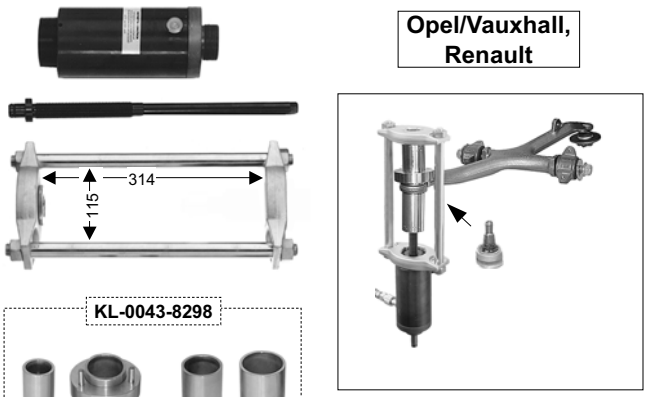
Technical Data

- Weight ..... 15,6 kg
- Length inside Pressframe without Hydr. Cyl.(clear width) .... 240 mm
- Width inside (clear width)..... 115 mm
- Max. Load of Hydr. Cylinder ..... 170 kN (= 17 t)

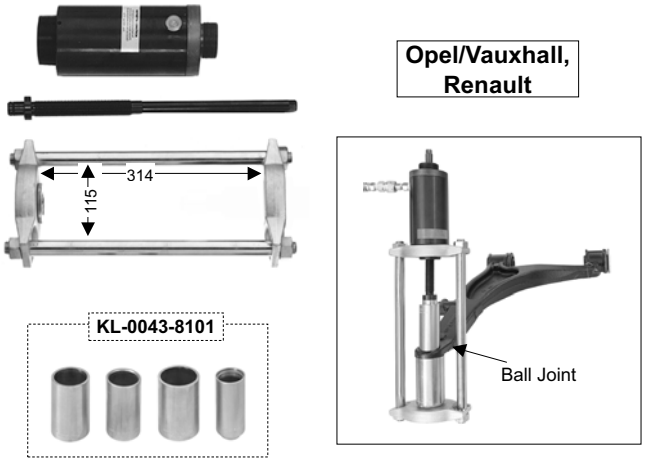
Note: An hydraulic pump (see Chapter 4) will be required to drive the **KL-0040-2500**.

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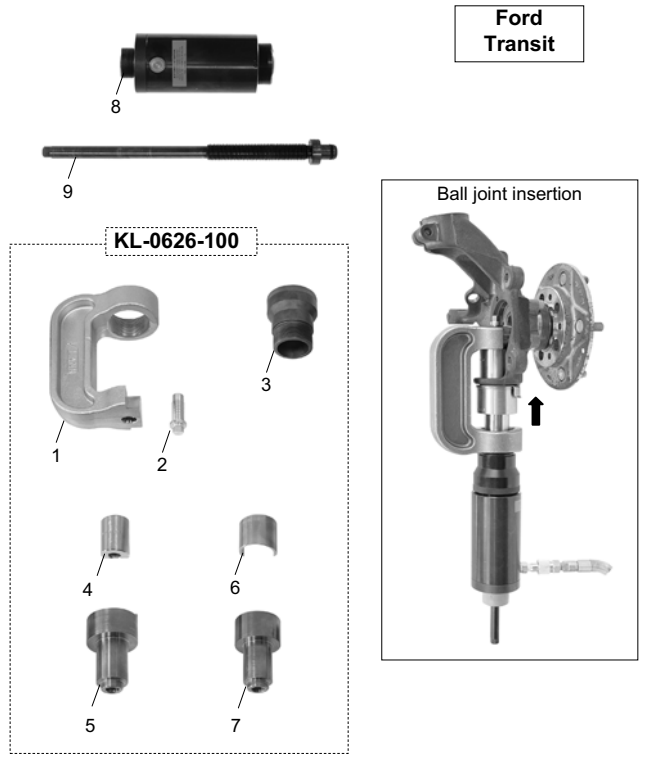
KL-0043-829



KL-0043-810



KL-0626-10



KL-0043-829 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-829** allows quick, easy and safe removal and replacement of the ***Ball-Joint in the upper front wishbone***. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2510	Pressure spindle
KL-0043-8200	Press frame short
KL-0043-8298	Press-/support tube set

KL-0043-8298 Press/Support Tube Set

consists of:

Part No.	Description
KL-0043-8269	Press-/support tube
KL-0043-8233	Press-/support tube
KL-0043-8276	Press-/support tube
KL-0043-8279	Press-/support tube

KL-0043-810 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-810** allows quick, easy and safe removal and replacement of the Ball-Joint in the lower front wishbone. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.
KL-0040-2510	Pressing spindle
KL-0043-8200	Press frame
KL-0043-8101	Press/support tube set

KL-0043-8101 Press/ Support Tube Set

consists of:

Part No.	Description
KL-0043-8237	Press/support tube
KL-0043-8238	Press/support tube
KL-0043-8274	Press/support tube
KL-0043-8276	Press/support tube

Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500** (see chapter 4).

KL-0626-10 Hydraulic Press Tool Kit
(German Utility Model)

Suitable for Ford Transit 2002 onwards, front axle.

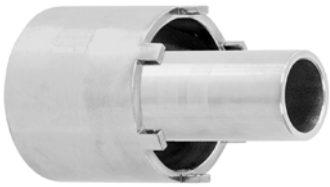
The support joint can be pressed out of or into the wheel bearing housing quickly and without difficulty, using Press Tool **KL-0626-10**. The support joint can be removed from or installed on the vehicle in just a few minutes, without the wheel bearing housing having to be removed.

Specification

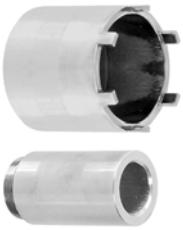
Pos.	Part No.	Description	Qty.
	KL-0626-10	**Hydraulic Press Tool with Hydr. Cylinder**	**1**
	consists of:		
	KL-0626-100	**Hydraulic Press Tool without Hydr.Cylinder**	**1**
8	KL-0040-2500	Hydraulic cylinder 17t	1
9	KL-0040-2510	Press spindle	1

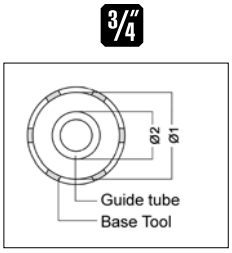
Pos.	Part No.	Description	Qty.
	KL-0626-100	**Hydraulic Press Tool Kit without Hyd. Cylinder**	**1**
	consists of:		
1	KL-0626-1001	Press Frame	1
2	KL-0626-1002	Coil screw	1
3	KL-0174-559	Adaptor 2 1/4"-14UNS to 2 1/4"-14UNS	1
4	KL-0626-1003	Press Tube (removal) Ø: 38mm	1
5	KL-0626-1004	Support Tube (removal) Ø: 66,5mm	1
6	KL-0626-1005	Support Tube (replacement) Ø: 54mm	1
7	KL-0626-1006	Press Tube (replacement) Ø: 56mm	1

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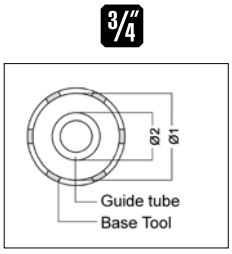
KL-1020-10





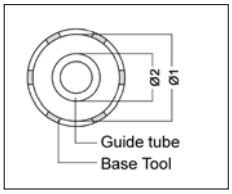
KL-1020-11



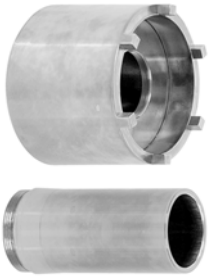


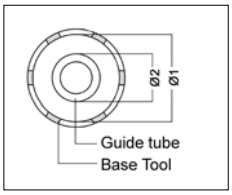
KL-1020-12





KL-1020-13





Toothed-/ Slotted Nut Sockets (HGV)

Ideal for loosening or tightening retaining nuts, for example on the front and rear axles or on the gearbox output and differential flanges.

Modular element system:
The base tool and guide tube can be combined.
(note the connecting thread)

Advantages:

- Large time savings.
- Universal using.

KL-1020-10 Toothed Socket

Suitable for e.g. **Mercedes hypoid rear axles: HL0/3, HL0/6, HL0/7, HL1/2 (only Ø63 necessary, HL1/3, HL1/8, HL1/9**

consists of: (Technical Data) Drive:.....3/4" ☐

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-110	Base Tool	**63**		75	**6**	7,5	1
KL-1020-1904	Guide tube		**42**	80			1

Connecting thread:.....M36 x 1,5
Weight:.....1,7 kg

KL-1020-11 Toothed Socket

Suitable for e.g. **Mercedes hypoid rear axles: HL2/2, HL2/3, HL2/5, HL2/9, HL2/11, HL2/12, HL2/15.**

consists of: (Technical Data) Drive:.....3/4" ☐

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-110	Base Tool	**63**		75	**6**	7,5	1
KL-1020-1901	Guide tube		**36**	125			1
KL-1020-1903	Guide tube		**40,5**	125			1
KL-1020-1905	Guide tube		**43**	125			1

Connecting thread:.....M36 x 1,5
Gewicht:.....2,2 kg

KL-1020-12 Toothed Socket

Suitable for e.g. **Mercedes hypoid rear axles: HL2/2, HL2/7, HL2/13.**

consists of: (Technical Data) Drive:.....3/4" ☐

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-120	Base Tool	**71,5**		110	**6**	10,9	1
KL-1020-1904	Guide tube		**42**	80			1

Connecting thread:.....M36 x 1,5
Weight:.....1,4 kg

KL-1020-13 Toothed Socket

Suitable for e.g. **MAN front axles (driven) M-Series: 3 ME DI and for planetary hub reduction-rear axles: 5 MR, 3 MR.**

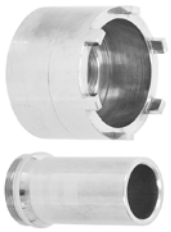
consists of: (Technical Data) Drive:.....3/4" ☐

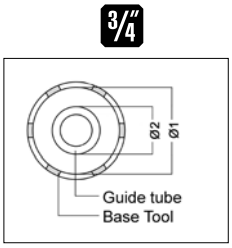
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-130	Base Tool	**76,5**		95	**6**	13	1
KL-1020-1902	Guide tube		**36,5**	105			1

Connecting thread:.....M36 x 1,5
Weight:.....1,4 kg

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KL-1020-20





KL-1020-20 Toothed Socket

Suitable for e.g. **Mercedes palloid front axles: AL3/1, AL3/2, AL3/4, AL3/7, AL3/8**

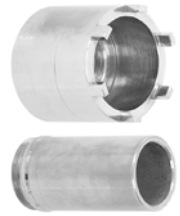
Drive: ..... 3/4" ☐

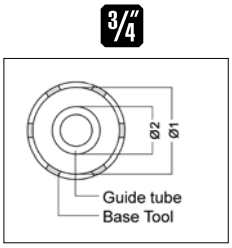
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-220	Base Tool	75		70	6	9,5	1
KL-1020-2901	Guide tube		44	95			1

Connecting thread: ..... M48 x 1,5
Weight: ..... 1,6 kg

KL-1020-21





KL-1020-21 Toothed Socket

Suitable for e.g **MAN hypoid (banjo) rear axles G-Series: VW2, VW4, VW6.1 - 6.8**

Drive: ..... 3/4" ☐

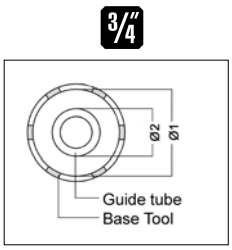
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-210	Base Tool	77		70	6	10	1
KL-1020-2904	Guide tube		49	100			1

Connecting thread: ..... M48 x 1,5
Weight: ..... 1,8 kg

KL-1020-22





KL-1020-22 Toothed Socket

Suitable for e.g **Mercedes hypoid rear axles: HL2/14, KL2/16, KL4/1, HL4/16, HL4/17, HL4/23, HL4/28, HL4/29, HL4/30, HL4/4, HL4/8, HD4/6G, HO4/2, HO4/18, NR4/4**

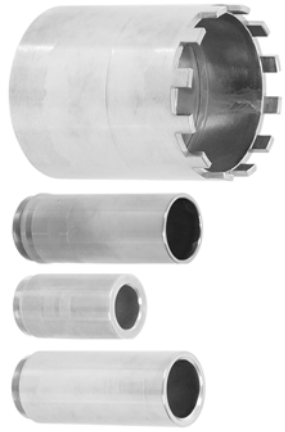
Drive: ..... 3/4" ☐

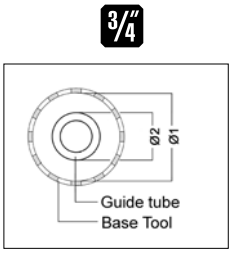
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-220	Base Tool	75		70	6	9,5	1
KL-1020-2902	Guide tube		43	95			1
KL-1020-2903	Guide tube		48	95			1
KL-1020-2906	Guide tube		51	95			1

Connecting thread: ..... M48 x 1,5
Weight: ..... 3,4 kg

KL-1020-23





KL-1020-23 Toothed Socket

Suitable for e.g **Mercedes planetary hub reduction rear axles (europe axles) 10 t + 13 t: HL7/1, HL7/2, HL7/18, HO7/8, HO7/9, HL7/0, HL7/015, HL7/021, HL7/3, HD7/2,HD7/19DG, HD7/016DG**
planetary hub reduction front axles 7 t: AL7/1.

The base tool can be used without the guide tube on the following vehicles: e. g. **planetary hub reduction axles, trailing axles NR7/4**

Drive: ..... 3/4" ☐

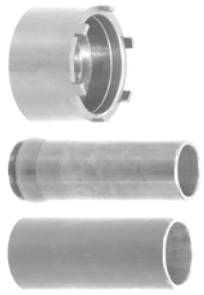
consists of: (Technical Data)

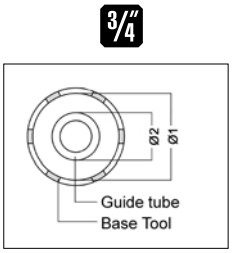
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-230	Base Tool	101,5		140	12	11,4	1
KL-1020-2905	Guide tube		50	135			1
KL-1020-2906	Guide tube		51	85			1
KL-1020-2907	Guide tube		53	135			1

Connecting thread: ..... M48 x 1,5
Weight: ..... 4,8 kg

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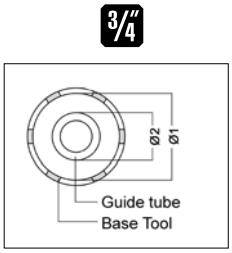
KL-1020-24





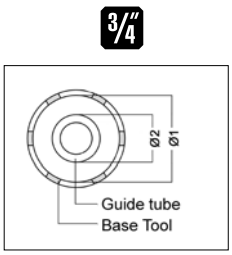
KL-1020-310





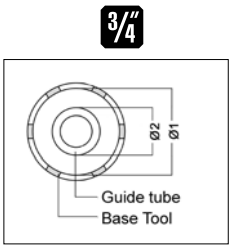
KL-1020-31





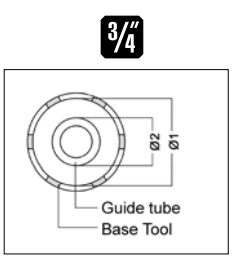
KL-1020-32





KL-1020-33





KL-1020-24 Toothed Socket

Suitable for **Mercedes e. g. ATEGO-pinion axles**

Drive: ..... 3/4" ☐

consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-240	Base Tool	**87**		65	**6**	10	1
KL-1020-2908	Guide tube		**49**	150			1
KL-1020-2909	Distance tube		**57**	140			1

Connecting thread: ..... M48 x 1,5
Weight: ..... 3,2 kg

KL-1020-310 Toothed Socket

Suitable for e.g **Mercedes rear axles HL 2/43 DG - 6.2 (Atego)**

Drive: ..... 3/4" ☐

consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-310	Base Tool	**88**		140	**6**	9,7	1

Connecting thread: ..... M56 x 1,5
Weight: ..... 2,0 kg

KL-1020-31 Toothed Socket

Suitable for e.g **Mercedes hypoid axles: HO4/10, HO4/10DL, HO4/11DL, HO5/3, HO5/4, HO5/8, HD4/21G, HD4/2G, HD4/22, HD5/3, HL5/2, HL5/6**

Drive: ..... 3/4" ☐

consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-310	Base Tool	**88**		140	**6**	9,7	1
KL-1020-3904	Guide tube		**57**	80			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 2,9 kg

KL-1020-32 Toothed Socket

Suitable for e.g **MAN hypoid rear axles M-Series: 16M (Soma-Axle), HY-0955, HY-1175, HY-0855.**

Drive: ..... 3/4" ☐

consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-320	Base Tool	**92**		85	**4**	7,8	1
KL-1020-3905	Guide tube		**58**	110			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 3,1 kg

KL-1020-33 Toothed Socket

Suitable for e.g **Mercedes hypoid axles: HO 5/5**

Drive: ..... 3/4" ☐

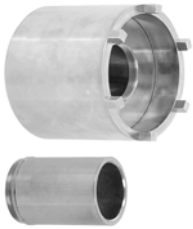
consists of: (Technical Data)

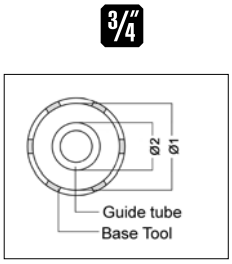
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-330	Base Tool	**100**		115	**6**	9,8	1
KL-1020-3906	Guide tube		**59**	105			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 3,3 kg

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KL-1020-34





KL-1020-34 Toothed Socket

Suitable for e.g **Mercedes hypoid axles: HL4/01, HL4/05, HL4/06, HD4/02, HD4/03.**

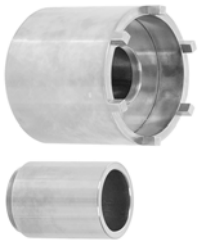
Drive: ..... 3/4" ☐

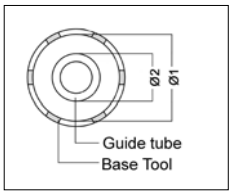
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-330	Base Tool	100		115	6	9,8	1
KL-1020-3907	Guide tube		59	105			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 3,3 kg

KL-1020-35





KL-1020-35 Toothed Socket

Suitable for e.g **Mercedes palloid front axles: AL3/6, AL3/9**

Drive: ..... 3/4" ☐

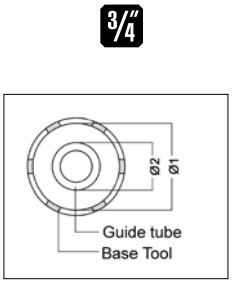
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-330	Base Tool	100		115	6	9,8	1
KL-1020-3909	Guide tube		64	105			1

Connecting thread: ..... M56 x 1,5
Weight ..... 3,3 kg

KL-1020-36





KL-1020-36 Toothed Socket

Suitable for e.g. **MAN**

Application with Guide tube Ø 51,5 mm:
Planetary hub reduction rear axles F-Series (H7, HD7) and front axles F-Series.

Application with Guide tube Ø 66,5 mm: **Hypoid rear axles F-Series (HY-1175, HDY-1175, HY-13110, HY-1180).**

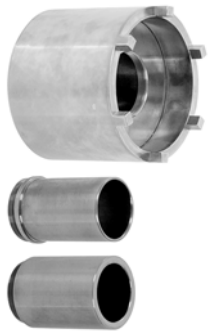
Drive: ..... 3/4" ☐

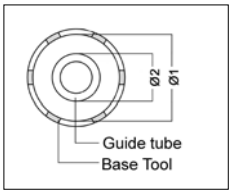
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-360	Base Tool	102		140	6	11,4	1
KL-1020-3901	Guide tube		51,5	135			1
KL-1020-3910	Guide tube		66,5	135			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 4,6 kg

KL-1020-37





KL-1020-37 Toothed Socket

Suitable for e.g **Mercedes trailing rocker shaft axles: NS4/2, NS4/10 and for pinion axles: HL6/1, HL6/2, HL6/3, HD6/3**

Drive: ..... 3/4" ☐

consists of: (Technical Data)

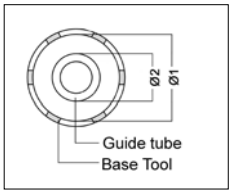
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-370	Base Tool	113		120	6	9,8	1
KL-1020-3902	Guide tube		55	95			1
KL-1020-3908	Guide tube		63	95			1

Connecting thread: ..... M56 x 1,5
Weight: ..... 4,8 kg

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KL-1020-38





KL-1020-38 Toothed Socket

Suitable for **Mercedes**
e.g. ACTROS rear axles (hypoid axles) HL/ HL8

Drive:.....3/4“ ☐

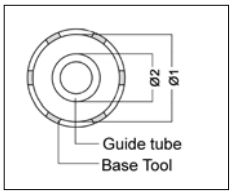
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-380	Base Tool	117		180	6	9,8	1
KL-1020-3911	Guide tube		60	195			1

Connecting thread:..... M56 x 1,5
Weight:..... 6,8 kg

KL-1020-39





KL-1020-39 Toothed Socket

Suitable for **MAN**
e.g. Low-floor bus with portal axle HDNP-1300

Drive:.....3/4“ ☐

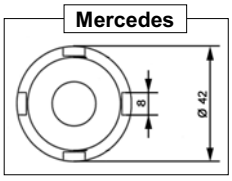
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-390	Base Tool	110		75	6	10,5	1
KL-1020-3912	Guide tube		63	120			1

Connecting thread:..... M56 x 1,5
Weight:..... 3,3 kg

KL-0303-12





KL-0303-12 Toothed Socket

Suitable for **Slotted nuts on the crown wheel.**
e.g. Mercedes axle types HL0/1, HL0/2, HL0/3 and HL0/7

Drive:.....3/4“ ☐

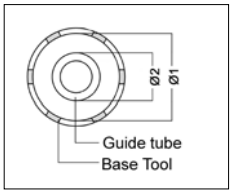
consists of: (Technical Data)

Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-0303-12	Base Tool	36		45	4	8	1

Weight:..... 330 g

KL-1020-40





KL-1020-40 Toothed Socket

Suitable for **Mercedes and MAN.**
e.g. Mercedes Atego, Transporter and Bus with slotted nut (A976 356 00 26).

The base tool can be used without the guide tube on the following vehicles: e.g. **MAN Bus (Type A, J, P, R) and trucks (Type H, L, M, N and 1) with slotted nut** (81.90620-0086).

Drive:.....3/4“ ☐

consists of: (Technical Data)

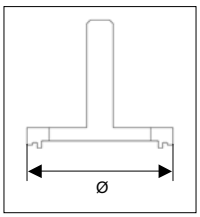
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity	Teeth width	Qty.
KL-1020-400	Base Tool	101		98	6	7,5	1
KL-1020-3905	Guide tube		58	110			1

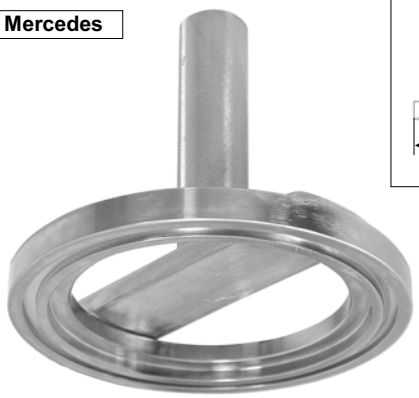
Connecting thread:..... M56 x 1,5
Weight:..... 3,2 kg

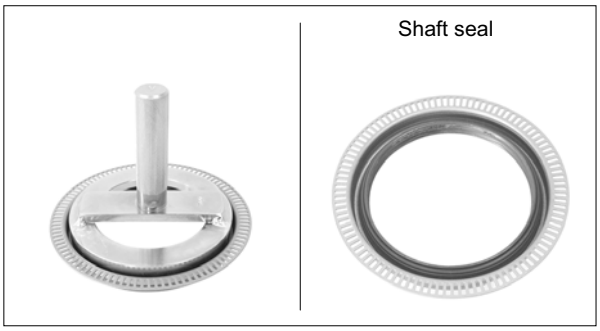
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KL-1025-Series

Mercedes



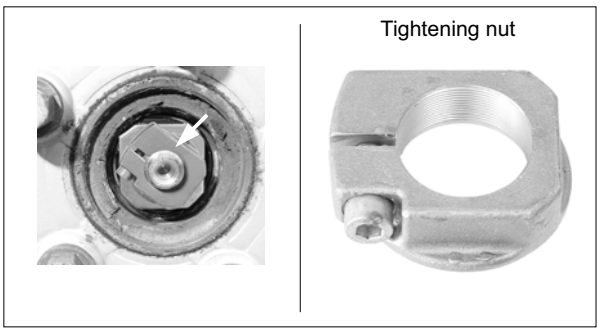




KL-1021-Series

Mercedes





K21-65



1"

GEDORE

KL-1025-180 Shaft seal Pushing Tool

Suitable for Mercedes ACTROS and ATEGO

e.g. Rotor with sealing ring (MB-No. 020 997 0547)

Ø:..... 180 mm Weight:.....3900 g

KL-1025-160 Shaft seal Pushing Tool

Suitable for Mercedes ACTROS and ATEGO

e.g. Actros Rotor (MB-No. A942 334 0115)

Ø:..... 160 mm Weight:.....2400 g

KL-1025-150 Shaft seal Pushing Tool

Suitable for Mercedes ACTROS and ATEGO

e.g. Sealing-ring assembly in the wheel hub
(MB No. 739 589 05 15 00)

Ø:..... 150 mm Weight:.....2100 g

Tightening nut socket

For clean, easy loosening and tightening of rectangular tightening nuts .

Part No.	Size (mm)	Drive	Range of application
KL-1021-3236	32 x 36	½	**Mercedes**-small trucks Series 200 and 300
KL-1021-4150	41 x 50	½	**Mercedes**-Axle VL 2/7-8, Types 1013 S-K and 1017 S-K (e.g. MERCEDES-ATEGO tightening nut No. 675 330 00 88)
KL-1021-4652	46 x 52	½	**MAN/VW** "G"-Series, Axle V 7 - 26L - 36L, Types 8.136 and 8.150
KL-1021-5062	50 x 62	½	**Mercedes**-Axle VL 2/11 as Type 814 (new small truck Series)
KL-1021-5468	54 x 68	½	**Mercedes**, **SETRA-BUS** S 215 HDH up to 1990 and **NEOPLAN-BUS** up to 1990
KL-1021-5671	56 x 71	¾	**DAF, Mercedes** Axles VL 3/8, 4/7, 4/9, 4/15, and VD 4/14 in Types 363, 385, 387, 839, 391, 393, 395, 617, 620, 621, 622, 623, 625 and 649, (e. g. MERCEDES-ACTROS with drum brake tightening nut No. 652 330 00 88) **Mercedes**-Buses Axles VO 3/10, 4/11, 4/13 and 4/19 in Types 0303, 0305-G and 0307, **MAN**-Axles (with clamping nut No. 81.92901-0066) **KÄSSBOHRER/SETRA** Axles Front Axle 6,5 and 7,5 t in Types S 210 and 215, SG 219-221 and non-driven rear axle Types S 216 HDS and S 228 DT
KL-1021-6076	60 x 76	¾	**Mercedes** SK-Front Axle VL 5/1 D-9, VL 5/2 -D-9 in Types 2629/ 6x4, 2635 K/6x4, 3535 K/8x4/4, (e.g. ACTROS with disk brake tightening nut No. 656 330 00 88) and **FAUST** Front Axle 9 t

K21-65 - Impact socket 65 mm hex
CODE 6184460

Suitable for e.g. MAN hub cap (No. 81.44312-0009).

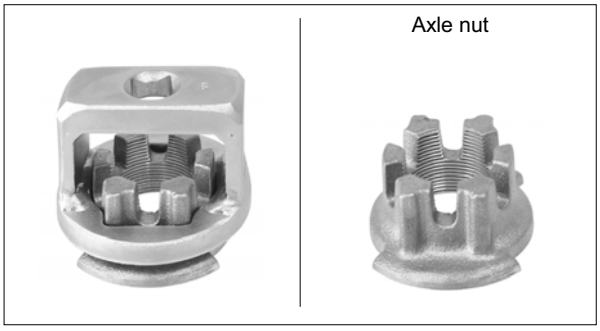
For loosening and tightening e.g. of screwed hub caps.

Hex.: ..... 65 mm Drive ..... 1"

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KL-1022-Series





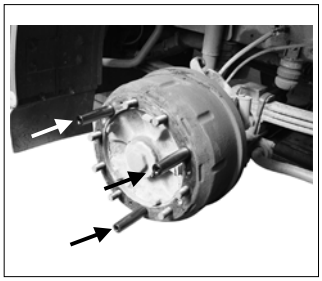
KL-1021-11





KL-1028-Series







Wheel Capsule and Axle Nut socket

For clean, easy loosening and tightening of flat oval wheel capsules and axle nuts, e.g. on BPW axles.

Part No.	Size (mm)	Drive	range of application
KL-1022-065	65	3/4"	For axle nuts with 65 mm oval (ECO-Axle)
KL-1022-080	80	3/4"	For axle nuts with 80 mm oval (ECO-Axle)
KL-1022-085	85	3/4"	For axle nuts with 85 mm oval (ECO-Front Axle 13 t.)
KL-1022-095	95	3/4"	For wheel capsules with 95 mm oval
KL-1022-110	110	3/4"	For wheel capsules with 110 mm oval
KL-1022-120	120	3/4"	For wheel capsules with 120 mm oval (ECO-Axle)

KL-1021-11 Hub cap pliers

Allows easy removal of sticked Hub caps

Technical Data:

Hub cab-Ø: ..... 40-90 mm

Length: ..... 493 mm

Weight: ..... 1,2 kg

KL-1028-Series Centering Sleeve Sets

The centering sleeve set in the **KL-1028** series makes it easy to fit commercial-vehicle wheels.

The centering sleeves are screwed on and off with a standard commercially-available 1/2-inch ratchet head.

Advantages:

- **High time savings**
- **No damage of the thread**
- **The taper on the sleeves ensures accurate centering**

Part No.	Wheel bore Ø	For Bolt Thread	Suitable for e.g.	Qty.
KL-1028-1821	21 mm	M18x1,5	DAF, Unimog, Iveco, MAN, Renault, Volvo	3
KL-1028-1824	24 mm	M18x1,5	DAF, Iveco, MAN, Renault, Volvo	3
KL-1028-2023	23 mm	M20x1,5	Mercedes	3
KL-1028-2026	26 mm	M20x1,5	Scania	3
KL-1028-2226	26 mm	M22x1,5	DAF, MAN, Mercedes, Ford, Renault, Scania, Volvo	3
KL-1028-2232	32 mm	M22x1,5	Alloy Wheels Mercedes, MAN	3
KL-1028-7826	26 mm	7/8"-11 BSF	Alloy Wheels Scania	3
KL-1028-7830	30 mm	7/8"-11 BSF	Alloy Wheels Scania	3

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8573-00



Torque wrench BC

Code No.:	7685530
Part No..:	8573-00
Weight:	1,4 kg
Length	553 mm
Range of work / measurement 1, Nm (min/max):	40-200
Range of work / measurement 2, lbf·ft (min/max):	30-150
Scale divisions:	5 N·m / 5 lbf·ft

8563-01



Torque wrench DR

Code No.:	7670180
Part No..:	8563-01
Weight:	5,0 kg
Length	800-1400 mm
Range of work / measurement 1, Nm (min/max):	140-760
Range of work / measurement 2, lbf·ft (min/max):	105-560
Scale divisions:	10 N·m / 10 lbf·ft

8571-01



Torque wrench DX

Code No.:	7694010
Part No..:	8571-01
Weight:	5,6 kg
Length	800-1400 mm
Range of work / measurement 1, Nm (min/max):	520-1000
Range of work / measurement 2, lbf·ft (min/max):	380-730
Scale divisions:	10 N·m / 10 lbf·ft

8573-00 DREMOMETER BC Torque Wrench

CODE: 7685530 **40-200 N·m**

Use:

- Controlled screw tightening in the range 40 - 200 N·m
- For use in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with 1/2" single square drive for controlled clockwise tightening
- 1/2" square drive with ball-locking mechanism DIN 3120 - A 12,5, ISO 1174.
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 5 N·m and 5 lbf·ft
- If ordering with pre-set-value locking and safety device lease specify the N·m value - if fixed factory-pre-setting is desired (price on request)

8563-01 DREMOMETER DR Torque Wrench

CODE: 7670180 **140-760 N·m**

Use:

- Controlled screw tightening in the range 140 - 760 N·m
- Ideal for the lorry and/or industrial-vehicle sectors

Features:

- Adjustable torque wrench with 3/4" single square drive for controlled clockwise tightening
- 3/4" square drive with pin-locking mechanism DIN 3120 - B 20, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 10 N·m and 10 lbf·ft

8571-01 DREMOMETER DX Torque Wrench

CODE: 7694010 **520-1000 N·m**

Use:

- Controlled screw tightening in the range 520 - 1000 N·m
- For use in all areas of industrial manufacturing

Features:

- Adjustable torque wrench with 3/4" single square drive for controlled clockwise tightening
- 3/4" square drive with pin-locking mechanism DIN 3120 - B 20, ISO 1174
- In accordance with DIN EN ISO 6789, traceable to national norms
- Automatic short-path actuation with tactile impulse and audible signal
- Actuation accuracy: +/- 3% tolerance of the scale set torque
- Full-metal construction from high-strength aluminium alloy
- Double scale with a scale graduation of 10 N·m and 10 lbf·ft

Further RAHSOL DREMOTEC Products and Torque Wrenches see GEDORE catalogue.

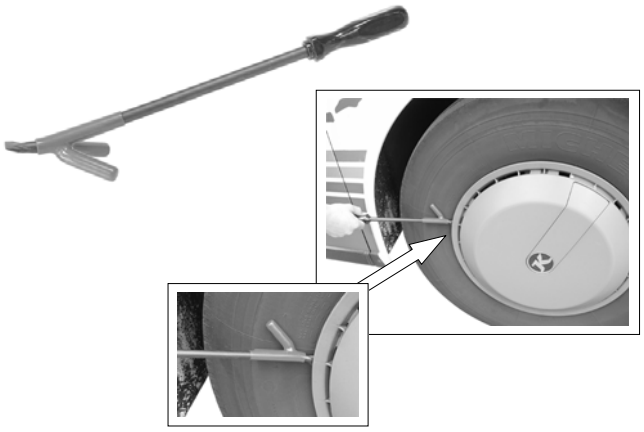
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KL-0100-Series





KL-1029-10



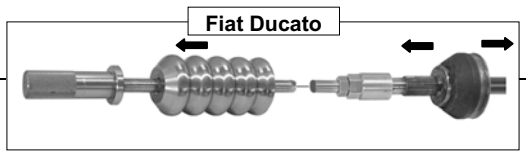
KL-1330-10



KL-0049-303



KL-0049-3014 KL-0049-3015



KL-0049-31



KL-0100-Series Accu Torq Impact Sockets

AccuTorq Impact Sockets are designed to be used in conjunction with a 1"-drive impact gun to tighten vehicle wheel-nuts to pre-determined torque limits according to manufacturers specifications.

AccuTorqs work by absorbing excessive torque into a torsion bar spring which will release the stored energy by rotating the anvil of the impact gun backwards during the intervals between hammer blows.
AccuTorqs work by "wasting" the excess torque generated by air impact guns, as all torque above the rated limited of any given AccuTorq will deflect the shaft (torsion bar spring) between the 1" input end and the hexagonal output end of the AccuTorq.

Special Features:

- **Combines impact gun speed with torque-wrench accuracy.**
- **Fits all 1"- air impact guns with min. 1 400 Nm.**
- **Maintenance free, no need for calibration adjustments.**

Technical Data:

Drive: ..... 1" Length:..... 305 mm
Weight per:.....1,7 kg.

Part no.	Hex.	Nm*
KL-0100-31	27	400
KL-0100-32	29	400
KL-0100-33	30	450
KL-0100-34	30	550
KL-0100-35	32	500
KL-0100-36	32	600
KL-0100-37	32	650
KL-0100-39	33	500
KL-0100-40	33	600
KL-0100-41	33	650

* = Torque/Moment of Torsion

KL-1029-10 Puller Lever

This lever makes it easy to lift off wheel covers or caps on trucks or buses. The two feet are plastic-coated so that the wheel rim or trim is not scratched.

Length:..... 400 mm

KL-1330-10 Forked Driver for Propeller Shaft

For pressing out push-fit propeller shafts on light commercial vehicles. **e.g. Citroen C25, Fiat Ducato, Peugeot J 5 etc.**

The special forked shape enables the shaft to be pressed out of the differential quickly and easily.
Space is too limited to permit conventional forked tools to be used on these vehicles.

Advantages:

- No damage to propeller shaft or differential.
- No accidental tilting, uniform pressure when pressing the shaft out.

KL-0049-303 Adaptor Set Fiat Ducato

Suitable for Fiat Ducato.

The CV Joint is easily and trouble-free separated from the drive shaft by using the adaptor **KL-0049-3014 or KL-0049-3015** together with the slide hammer **KL-0049-31.**

consists of:

Part No.	Hex.	Ø	Length	Connection thread
KL-0049-3014	32	40	65	M18 / M28x1,5
KL-0049-3015	32	45	65	M18 / M33x1,5

KL-0049-31 Slide hammer

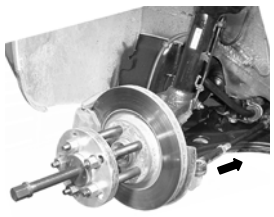
For Half-Shafts, Drive Shafts, Brake Discs and Brake drums, etc. inclusive Adaptor 2 ¼"-14UNS to M18 suitable for the **KL-0174-Series.**

Hammer weight: .....4,8 kg Length:..... 690 mm

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Examples of application:

Press out the drive-shaft with the mechanical spindle.



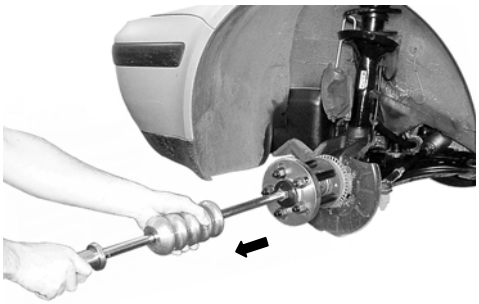
Press out the drive-shaft flange



Press out the drive-shaft using 17 ton Hydraulic Cylinder.



Remove the hub using a slide-hammer



Wheel Hubs

Standard Hub, 4 Wheel Bolts



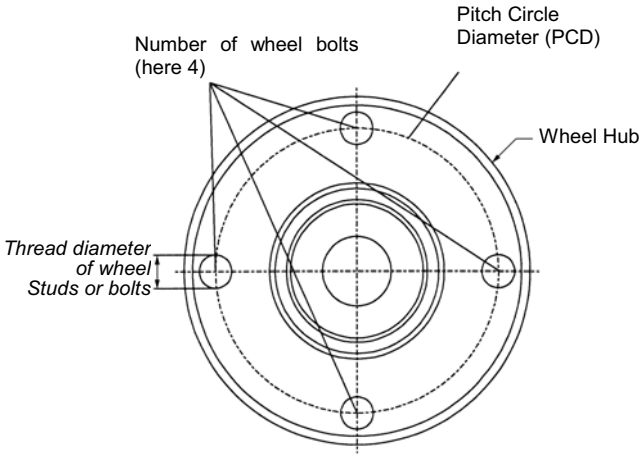
Standard Hub, 5 Wheel nuts



4X4 Off-Road, 6 Wheel nuts



Important Data



KL-0174 Puller Series

The **KL-0174 Puller Series** used together with the hydraulic cylinder **KL-0215-10** (17t.) or with the hydraulic spindle **KL-0045-7** (12t.) allow *to press out drive shafts* glued with loctite or rusted or, together with the slide hammer **KL-0049-31** allow the *removal of wheel hubs, brake drums and half shafts directly in the vehicle.*

Thanks to the use and combination of different perforated disks, tie bolts and drives the Puller Series KL-0174 is almost universally applicable.

Application:

- ***Drive shaft pressing out:***

  ⇒ mechanic or hydraulic
  (depending on the drive variant dee page 3.3-06)

  e.g. the use of the 17 t. hydraulic cylinder **KL-0215-10** (consisting of the hydraulic cylinder **KL-0040-2500** and of the press spindle **KL-0040-2510**) allow to press out even rusted, very stuck or glued drive shafts.

- ***Wheel hubs, half shafts and brake drums removal:***

  ⇒ with slide hammer **KL-0049-31**
  (see page 3.3-06)

  By using the slide hammer **KL-0049-31** *wheel hubs, brake drums and half shafts can be removed directly in the vehicle*.

In order to select the correct puller, the following important data must be known:

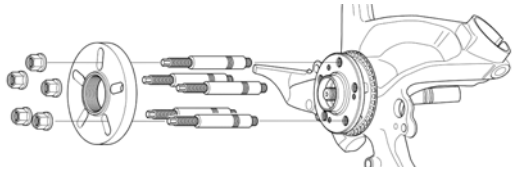
1. PCD and number of studs (3, 4, 5 or 6).
   → important to establish the correct plate size with the correct hole pattern

2. Wheel Studs (type M) or Screws (type B) and thread diameters.
   → important to select the puller bolts with inner or outer threads.

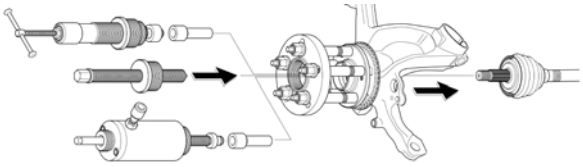
3. What drive method is to be used, mechanical spindle, slide-hammer, Hydraulic spindle or Hydraulic Cylinder?
   → important to establish the length of puller bolts required (see table).

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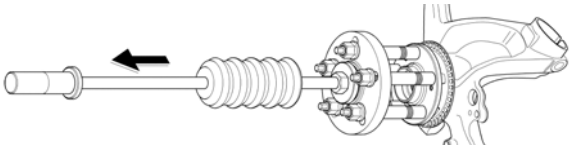
1. Assemble the puller:



2. Press out drive shaft:



3. Extract wheel hub:



KL-0174-107 KA



Spare Parts for the assembly of a Puller from the Puller-Series KL-0174-...

The puller plates with the sizes 0, 1, 2 and 3 can be assembled to an all-purpose puller-system by using different adaptors, spindles, puller bolts, screws and drives.

KL-0174-107 KA Universal Puller Set

Suitable e.g. for VW-Audi, Alfa Romeo, BMW, Citroën, Fiat Ford, Honda, Hyundai, Lancia, Mazda, Mercedes, Mitsubishi, Nissan, Opel, Renault, Rover, Subaru, Suzuki, Seat, Škoda, Toyota, etc.

By using the Puller Set **KL-0174-107 KA** *wheel hubs, brake drums and half shafts can be removed directly in the vehicle* and rusted or glued with loctite drive shafts are pressed out.

Part No.	Description	Qty.
KL-0174-107 KA	**Universal Puller Set**	**1**
bestehend aus:		
KL-0174-240	Puller plate size 2 (3-4-a.5-hole) Inner thread: ..... 2 1/4" - 14 UNS PCD- Ø: ..... 90 - 130 mm Outer-Ø: ..... 160 mm	1
KL-0174-360	Puller plate size 3 (3-4-a.5-hole) Inner thread: ..... 2 1/4" - 14 UNS PCD- Ø: ..... 100 - 180 mm Outer-Ø: ..... 220 mm	1
KL-0174-722	Puller bolts type B, M12x1,25 Distance area = 100 mm	4
KL-0174-723	Puller bolts type B, M12x1,5 Distance area = 100 mm	4
KL-0174-724	Puller bolts type B, M14x1,5 Distance area = 100 mm	4
KL-0174-725	Puller bolts type B, M16x1,5 Distance area = 100 mm	4
KL-0174-726	Puller bolts type B, M12x1,75 Distance area = 100 mm	4
KL-0174-762	Puller bolts type M, M12x1,25 Distance area = 100 mm	4
KL-0174-763	Puller bolts type M, M12x1,5 Distance area = 100 mm	4
KL-0174-764	Puller bolts type M, M14x1,5 Distance area = 100 mm	4
KL-0174-765	Puller bolts type M, M16x1,5 Distance area = 100 mm	4
KL-0174-701	Hex. Shoulder nut M14 Hex. 22	4
KL-0174-559	Adaptor 2¼"-14UNS on 2¼"-14UNS	1
KL-0049-31	Slide hammer 4,8 kg	1
KL-0040-2500	Hydraulic cylinder 17t	1
KL-0040-2510	Press spindle	1
KL-0040-2561	Press tube	1
KL-0174-0090	Plastic case 780x450x175 mm (empty)	1

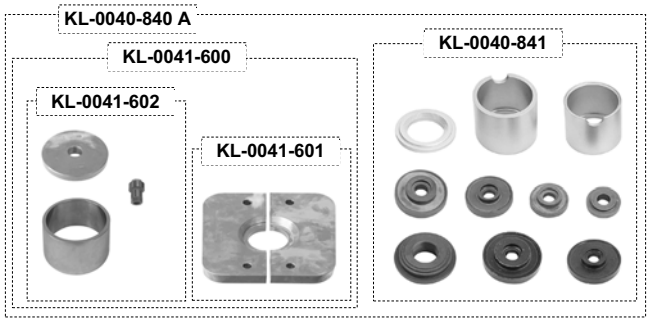
Note: Additionally, the KL-0045-70 Hydraulic Spindle can also be stored in the Case

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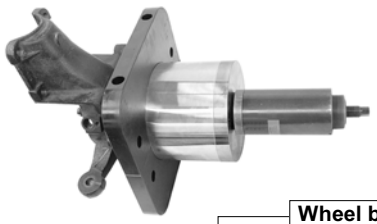
KL-0040-84 A

Peugeot, Fiat





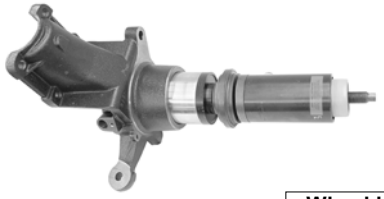
Wheel hub extraction



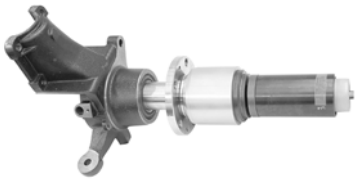
Wheel bearing extraction



Wheel hub pull in



Wheel bearing pull in



Note: To drive the hydraulic cylinder KL-0040-2500 is a hydraulic pump (see chapter 4) necessary.

KL-0040-84 A Wheel Bearing / Hub Puller

with hydraulic cylinder (17 t.)

Suitable for Peugeot Boxer II and Fiat Ducato ('02 onwards) Wheel Bearings with the diameters:

outer-Ø 84 mm / inner Ø 49 mm or
outer-Ø 90 mm / inner Ø 55 mm.

Application:

For removal and replacement the wheel hub and for fast and correct replacement of the wheel bearing avoiding damages, without the need to remove the axle.

Time savings: more than one hour for each wheel bearing.

The Wheel Bearing Puller **KL-0041-841**in combination with the hydraulic cylinder **KL-0040-2500,** the Spindle **KL-0040-2512** and the Nut **KL-0040-3009** allows removing the hub correctly with a force up to 17 tons.

Very stubborn wheel hubs may be pressed out under a bench press in combination with the chuck jaws **KL-0041-601**.

Note:
It has been experienced, that for pressing out the wheel hub on some cars forces up to 40 tons may be required.

Specification:

Part No.	Description	Qty.
KL-0040-84 A	**Wheel Bearing / Hub Puller with hydraulic cylinder (17 t.)**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder (17 t.)	1
KL-0040-2512	Spindle M 20	1
KL-0040-3009	Nut M 20	1
KL-0040-840 A	**Wheel Bearing / Hub Puller without Drive**	**1**

Part No.	Description	Qty.
KL-0040-840 A	**Wheel Bearing / Hub Puller without hydraulic cylinder**	**1**
consists of:		
KL-0041-600	**Hub Puller without Drive**	**1**
KL-0040-841	**Wheel Bearing Puller without Drive**	**1**

Part No.	Description	Qty.
KL-0041-600	**Hub Puller without Drive**	**1**
consists of:		
KL-0041-601	**Chuck jaw pair**	**1**
KL-0041-602	**Update Kit**	**1**

Part No.	Description	Qty.
KL-0040-841	**Wheel Bearing Puller without Drive**	**1**
consists of:		
KL-0040-3002	Bearing housing	1
KL-0040-3030	Adaptor disc	1
KL-0040-3032	Housing	1
KL-0040-3037	Pressure disc Nr. 18	1
KL-0040-3039	Pressure disc Nr. 20	1
KL-0040-3045	Pressure disc Nr. 23	1
KL-0040-3047	Stepper ring Nr. 7	1
KL-0040-3048	Housing	1
KL-0040-3049	Pressure disc Nr. 24	1
KL-0040-3050	Pressure disc Nr. 25	1

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KL-0040-80

Renault Master
Opel Movano



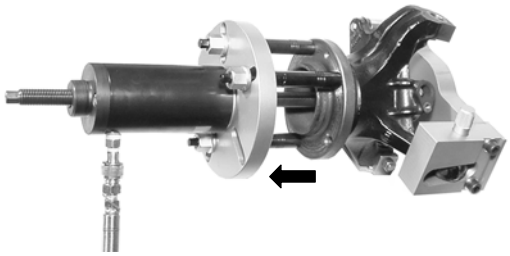
KL-0040-801



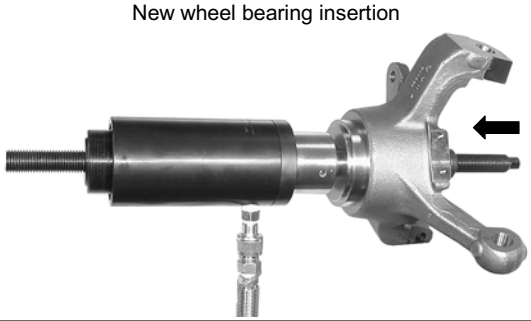
KL-0040-800



Wheel hub extraction



New wheel bearing insertion



KL-0040-80 Wheel Bearing Puller
Opel Movano, Renault Master

Suitable for:
Opel Movano / Renault Master October 1997 - Jan. 2001
Opel Movano / Renault Master onwards January 2001

⇒ Drive Shaft extraction.

⇒ Hub extraction and replacement.

⇒ Wheel Bearing extraction and replacement.

The special design of this new Wheel Bearing Tool allows stubborn Drive Shafts, Wheel Hubs and Bearings to be extracted and inserted hydraulically.

It makes no difference if the brake disc is mounted on the inner or the outer face of the Hub flange.

Also the irregular profile of the inner face of the Hub has no effect on the extraction and insertion of the Wheel Bearing.

Removal and replacement of the Hub and Wheel Bearing takes approximately 15 Minutes per side.

Part No.	Description	Qty.
KL-0040-80	**Wheel Bearing Puller**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17t	1
KL-0040-801	**Wheel Bearing Puller Tool without drive**	**1**

KL-0040-801 Wheel Bearing Puller without drive

As **KL-0040-80,** if the Hydraulic Cylinder **KL-0040-2500** is already available.

Part No.	Description	Qty.
KL-0040-801	**Wheel Bearing Puller without drive**	**1**
consists of:		
KL-0040-2551	Adaptor M42x2 auf Ø30	1
KL-0040-2547-1	Pull spindle M20 x 550	1
KL-0040-3009	Clamping nut	1
KL-0040-800	**Wheel Bearing Puller without Hydr. Cyl.**	**1**

KL-0040-800 Wheel Bearing Puller without Hydr. Cyl.

As **KL-0040-80,** if the Hydraulic Cylinder **KL-0040-2500**, the press spindle **KL-0040-2547-1** and the clamping nut **KL-0040-3009** are already available.

Part No.	Description	Qty.
KL-0040-800	**Wheel Bearing Puller without Hydr. Cyl.**	**1**
consists of:		
KL-0040-8001	Mounting bridge	1
KL-0040-8002	Mandrel, conical	1
KL-0040-8003	Special hex. screw M12x1,25 x 45	2
KL-0040-8004	Distance bolt 50 mm, M12x1,25	2
KL-0040-8005	Mounting nut M12x1,25	2
KL-0040-8006	Adaptor 2 1/4"-14 UNS auf Ø20,5	1
KL-0040-8007	Adaptor 2 1/4"-14 UNS	1
KL-0040-8008	Distance bolt 64 mm, M12x1,25	2
KL-0040-3036	Pressure disc Nr. 17	1
KL-0040-3045	Pressure disc Nr. 23	1
KL-0040-3046	Centring disc Nr. 4	1
KL-0174-330	Puller Plate size 3 (5-hole)	1
KL-0174-765	Puller bolt type M, M16x1,5 (l=100)	3
KL-0174-724	Puller bolt type B, M14x1,5 (l=100)	3
KL-0174-701	Hex. shoulder nut M14	3

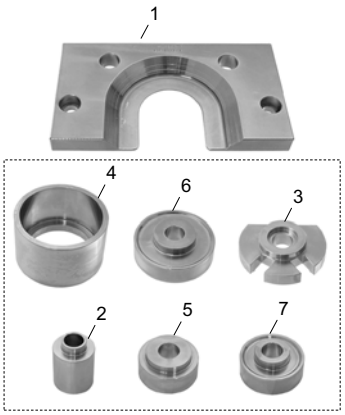
Accessories:

KL-0040-8050 Wooden Storage Tray (empty)

(For a straight storage of the wheel bearing puller set **KL-0040-80**)

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KL-0430-1



Opel Vivaro / Renault Trafic

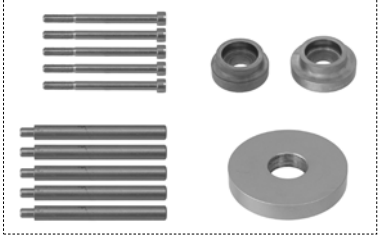


KL-0040-86

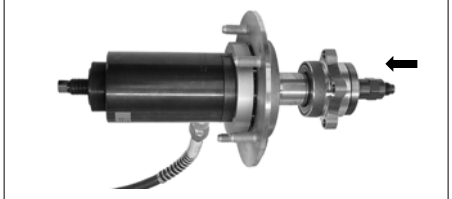


Ford Transit

KL-0040-860



Mounting the wheel bearing onto the hub.

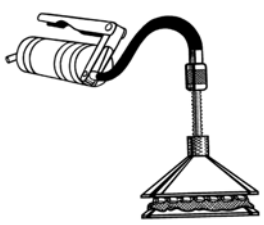


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KL-0179-12



Universal



KL-0430-1 Wheel Bearing Tool Set
(German Utility Model)

Suitable for: Opel Vivaro / Renault Trafic front axle
⇒ Removal and replacement of Hub and Wheel Bearing

Because of the specific design of this vehicle it is an advantage to remove the Hub Carrier assembly from the vehicle and to remove and replace the Hub and the Bearing using the hydraulic bench press **KL-0145-80**.

It is important to note that the Wheel Bearing must be assembled with the built-in ABS sensor facing towards the inner side of the Hub Carrier assembly.

The Press Tool **KL-0430-1003** is specifically designed to prevent damage to the ABS sender-ring which is built into the inner side of the wheel bearing housing.

Advantages:

- Precise removal and replacement of the Hub and Wheel Bearing without risk of damage to the ABS sender.
- Time savings of up to 1 hour.

Specification:

Pos.	Part No.	Description	Qty.
	KL-0430-1	**Wheel Bearing Tool Set**	**1**
	consists of:		
1	KL-0430-1001	Base plate Hub removal	1
2	KL-0430-1002	Drift Hub removal	1
3	KL-0430-1003	Centering Disc Hub removal (support)	1
4	KL-0430-1004	Housing RA Wheel Bearing extraction/insertion FA Wheel Bearing extraction, ABS ring insertion	1
5	KL-0430-1005	Press plate FA Wheel Bearing extraction, Hub insertion	1
6	KL-0430-1006	Press plate FA Wheel Bearing insertion	1
7	KL-0430-1007	Press plate RA Wheel Bearing extraction/insertion	1

KL-0040-86 Wheel Bearing Tool Set
with Hydraulic Cylinder (28 t.)

Suitable for Ford Transit 2002-onwards.

To renew the brake disc or wheel bearing, the wheel hub must be pulled out of the wheel bearing housing together with the hub and the brake disc.

The wheel bearing can be removed or installed within a few minutes, without removing the suspension strut.

KL-0040-860 Wheel Bearing Tool Set
(without Hydraulic Cylinder)

As **KL-0040-86**
if hydraulic cylinder (28 t) **KL-0040-2800**, spindle **KL-0040-2812-1** and nut **KL-0040-2812-2** are already available.

Specification:

Part No.	Description	Qty.
KL-0040-850	**Wheel Bearing Tool Set (without Hydraulic Cylinder)**	**1**
consists of:		
KL-0040-8501	Pressure Ring	1
KL-0040-8236-4	Screw M10 x 140	5
KL-0040-8503	Mandrel	5
KL-0040-8601	Pressure disc Ø 77 mm	1
KL-0040-8602	Pressure disc Ø 68 mm	1

Note: To drive the hydraulic-cylinder KL-0040-2500 or KL-0040-2800 a hydraulic pump is necessary (see chapter 4).

KL-0179-12 Bearing Grease Arrangement

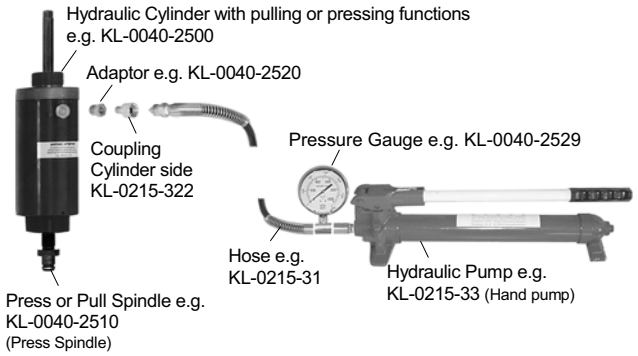
Fast, Efficient, Universal.

Simply place the bearing between the cones, tighten, and apply grease through the fitting on the end of the threaded

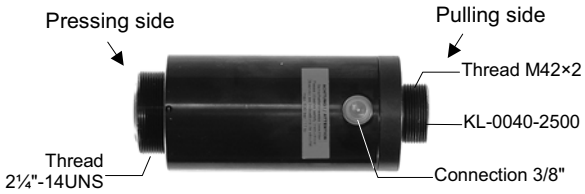
Cone-Ø:: ..... 165 mm.

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Hydraulic Drive:

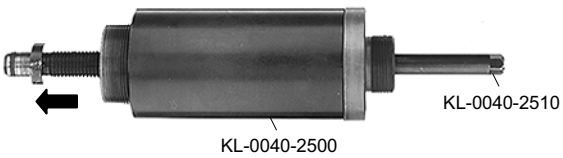


KL-0040-2500



Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0215-10



KL-0040-25



Hydraulic Drive:

Hydraulic Cylinder for pull- and press works
see page 11.4-01 to 11.4-02.

Press and Pull Spindles
see page 11.4-03 to 11.4-04.

Adaptor and Hydraulic Couplings
see page 11.4-02

Pressure Gauge
see page 11.4-03 to 11.4-04.

Hydraulic Pumps
see page 11.4-05.

Hydraulic Hose
see page 11.4-05.

KL-0040-2500 Hydraulic Cylinder 17 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2500** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Applications:

The **KL-0040-2500** Hydraulic Cylinder may be used in conjunction with other KLANN tools to remove and replace Drive-Shafts, Hubs, Wheel Bearings, Bushes and Ball Joints.

Technical Data:

Maximum force:	170 kN (17 t)
Maximum stroke:	45 mm
Maximum Volume of Oil:	122 cm³
Piston Area:	27 cm²
Piston Thread:	M20
Retaining Thread Pressure Side:	2 ¼"-14 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	80 mm
Overall Length Retracted:	202 mm
Overall Length Extended:	247 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	5,2 kg

KL-0215-10 Hydraulic Cylinder with Press Spindle

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (17 t) without spindle
KL-0040-2510	Press Spindle, length 350 mm

KL-0040-25 Hydraulic Cylinder with Pull Spindle

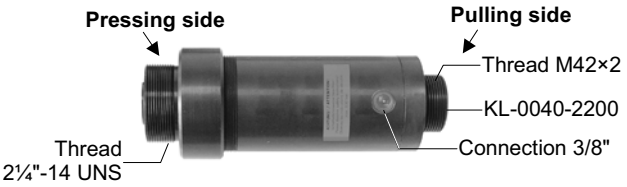
For use with the KLANN wheel-bearing tool or the wheel-hub puller **KL-0330**.

consists of:

Part No.	Description
KL-0040-2500	Hydraulic Cylinder (17 t) without spindle
KL-0040-2512	Pull Spindle, length 435 mm

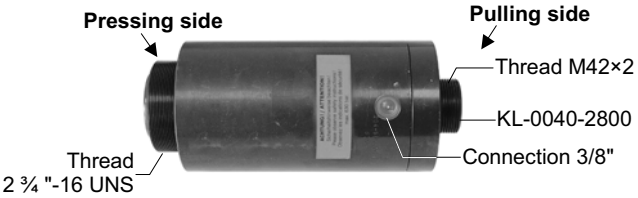
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KL-0040-2200



Note: A hydraulic pump will be required to drive the hydraulic cylinder **KL-0040-2200**.

KL-0040-2800



Note: A hydraulic pump will be required to drive the hydraulic cylinder **KL-0040-2800**.

Thread Adaptor for Hydraulic Cylinder



KL-0040-2520 **KL-0040-2521** **KL-0040-2523** **KL-0040-2522**

Hydraulic Couplings

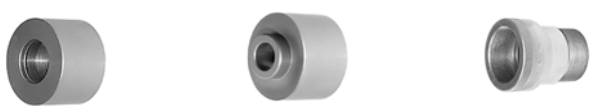


KL-0215-322 **KL-0215-321**

KL-0040-2561



Adaptor



KL-0040-2552 KL-0040-2551 KL-0174-559

KL-0040-2200 Hydraulic Cylinder 10 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2200** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Technical Data:

Maximum force:	105,8 kN (10 t)
Maximum stroke:	45 mm
Maximum Volume of Oil:	75,91 cm³
Piston Area:	15,11 cm²
Piston Thread:	M16/Ø 16,5
Retaining Thread Pressure Side:	2 ¼"-14 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	69 mm
Overall Length Retracted:	217,5 mm
Overall Length Extended:	262,5 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	4,65 kg

KL-0040-2800 Hydraulic Cylinder 28 t

Due to it's special design, the Hydraulic Cylinder **KL-0040-2800** may be used to perform pulling or pressing functions according to the type of Spindle chosen as an accessory.

Technical Data:

Maximum force:	285 kN (28 t)
Maximum stroke:	50 mm
Maximum Volume of Oil:	216,3 cm³
Piston Area:	40,6 cm²
Piston Thread:	M24
Retaining Thread Pressure Side:	2 ¾ "-16 UNS
Retaining Thread Puller Side:	M42×2
Cylinder Outer Diameter:	99 mm
Overall Length Retracted:	235 mm
Overall Length Extended:	285 mm
Hydraulic Fluid Connection:	3/8"NPT
Weight:	9,6 kg

Hydraulic Accessory - Adaptors

If an existing Hydraulic Pump is to be used to power Hydraulic Cylinder **KL-0040-2500**, it should be noted that Hydraulic Cylinder **KL-0040-2500** is supplied with 3/8"NPT Connector coupling. It is likely that an adaptor will be required to connect the existing Pump to Hydraulic Cylinder **KL-0040-2500** (see Table below).

Part No:	Description	
KL-0040-2520	Adaptor 3/8"NPT to1/4"NPT	(eg. KLANN, Longus, Rodcraft)
KL-0040-2521	Adaptor 3/8" NPT to M16×1.5	(eg. Matra)
KL-0040-2522	Adaptor 3/8" NPT to M18×1.5	(eg. Weber)
KL-0040-2523	Adaptor 3/8" NPT to G1/4"	(eg. Nike)
Note: Hydraulic Cylinders from Blackhawk, Car Bench, Celette, Enerpac, OTC and Yale have 3/8"NPT-couplings		

Hydraulic Accessory - Couplings

Part No:	Description
KL-0215-321	Coupling Hose side 1/4" NPT
KL-0215-322	Coupling Cylinder side 1/4" NPT

Press Piece

KL-0040-2561 Press Piece

Suitable for the **KL-0040-2510** Spindle used in conjunction with the **KL-0040-2500** Hydraulic Cylinder to press out Loctited Drive-Shafts.

Adaptor

KL-0040-2552 M42x2 to Ø30 mm

Required if the various Press/Support Tools of the KLANN **KL-0043-82** and **KL-0043-85** Press Tools are to be used.

KL-0040-2551 M42x2 to Ø30 mm

Required if the various Pressure Discs of the KLANN **KL-0040-... Series** Wheel Bearing Tool are to be used.

KL-0174-559 Adaptor 2¼"-14UNS to 2¼"-14UNS

Required for the use of Hydraulic Cylinders **KL-0215-10** and **KL-0040-25** in conjunction with Puller Discs size 1 and 2 with PCD Ø of 90 - 102 mm.

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Spindles and nuts

KL-0040-2510



KL-0040-2541



KL-0040-2541-2 KL-0040-2541-1

KL-0040-2542



KL-0040-2542-2 KL-0040-2542-1

KL-0040-2543



KL-0040-2543-2 KL-0040-2543-1

KL-0040-2543-5



KL-0040-2543-3



KL-0040-2544



KL-0040-2544-2 KL-0040-2544-1

KL-0040-2545-1



KL-0040-2545-3



KL-0040-2512



KL-0040-2546-1



KL-0040-2547-1



KL-0040-3009



KL-0330-0009



KL-0041-3811



KL-0041-3812

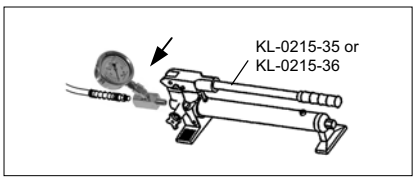


Note: For further spindles and nuts of the KL-0039-..Series see page 4-11.

KL-0040-2529



1/4"



KL-0215-35 or
KL-0215-36

KL-0040-2590





Accessories for KL-0040-2500 Hydr. Cylinder (17t.)

Spindles and Nuts

KL-0040-2510 Press Spindle
Length:.....350mm Load $_{max.}$.....20 t.

KL-0040-2541 Pull Spindle M10x1,25, with Nut
Length:.....470 mm Load $_{max.}$.....5 t

consists of:
KL-0040-2541-1 - Pull Spindle M10x1,25
KL-0040-2541-2 - Nut M10x1,25

KL-0040-2542 Pull Spindle M12, with Nut
Length:.....470 mm Load $_{max.}$.....7 t

consists of:
KL-0040-2542-1 - Pull Spindle M12
KL-0040-2542-2 - Nut M12

KL-0040-2543 Pull Spindle M14, with Nut
Length:.....470 mm Load $_{max.}$.....9 t

consists of:
KL-0040-2543-1 - Pull Spindle M14
KL-0040-2543-2 - Nut M14

KL-0040-2543-5 Pull Spindle M14
Length:.....550 mm Load $_{max.}$.....9 t

KL-0040-2543-3 Pull Spindle extension M14
Length:.....345 mm Load $_{max.}$.....9 t

KL-0040-2544 Pull Spindle M16, with Nut
Length:.....470 mm Load $_{max.}$.....13 t

consists of:
KL-0040-2544-1 - Pull Spindle M16
KL-0040-2544-2 - Nut M16

KL-0040-2545-1 Pull Spindle M18
Length:.....650 mm Load $_{max.}$.....16 t

KL-0040-2545-3 Nut M18

KL-0040-2512 Pull Spindle M20
Length:.....465 mm Load $_{max.}$.....20 t

KL-0040-2546-1 Pull Spindle M20
Length:.....550 mm Load $_{max.}$.....20 t

KL-0040-2547-1 Pull Spindle M20
Length:.....550 mm Load $_{max.}$.....20 t

KL-0040-3009 Hex Nut M20
KL-0330-0009 Tension Nut (for Wheel Hubs) M20
KL-0041-3811 Hex Nut Ø 38 mm
KL-0041-3812 Hex Nut Ø 30 mm

KL-0040-2529 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation.

The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2500**.

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2528 Pressure Gauge (not ill.)

As **KL-0040-2529** but with connection thread 3/8“NPT
(e.g. for KL-0215-37)

KL-0040-2590 Safety belt

By using the safety belt **KL-0040-2590** on the vehicle and on the Hydraulic Cylinder **KL-0040-2500**, the latter is prevented from falling off.

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Spindles and nuts

KL-0040-2241

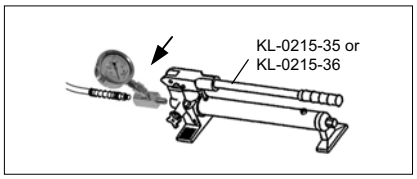


KL-0040-2242



KL-0040-2229





KL-0040-2290





Spindles and Nuts

KL-0040-2810

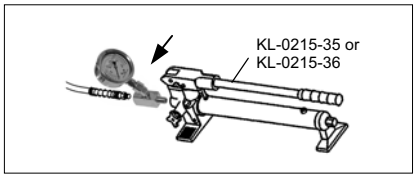


KL-0040-2812



KL-0040-2829





KL-0040-2890





Accessories for KL-0040-2200 Hydraulic-Cylinder (10 t.)

Spindles

KL-0040-2241 Press Spindle
Length:..... 350 mm Load $_{max.}$.....13 t.

KL-0040-2242 Pull Spindle M16 x 590 with nut
Length:..... 590 mm Load $_{max.}$.....13 t

consists of:
KL-0040-2242-1 - Pull spindle M16 x 590
KL-0039-1916-2 - Nut M16

KL-0040-2229 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation

The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2200.**

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2228 Pressure Gauge (not ill.)

As **KL-0040-2229** but with connector thread 3/8“ NPT.
(e.g. für KL-0215-37)

KL-0040-2290 Safety belt

By using the safety belt **KL-0040-2290** on the vehicle and on the Hydraulic Cylinder **KL-0040-2200**, the latter is prevented from falling off.

Accessories for KL-0040-2800 Hydraulic-Cylinder (28 t.)

Spindles

KL-0040-2810 Press Spindle
Length:..... 405 mm Load $_{max.}$.....28 t.

KL-0040-2812 Pull Spindle M24 x 590 with nut
Lenght:..... 590 mm Load $_{max.}$.....28 t

consists of:
KL-0040-2812-1 - Pull spindle M24 x 590
KL-0040-2812-2 - Actuating nut Ø42, M24

KL-0040-2829 Pressure Gauge

The Pressure Gauge can be connected between the Hydraulic Pump and the Hose so that the hydraulic pressure can be controlled during operation
The pressure gauge is fitted with an additional tonne scale, which was made to suit our Hydraulic Cylinder **KL-0040-2800.**

Technical Data:

Measuring Range	1000 bar
Manometer Ø mm	71 mm
Connection thread	1/4“ NPT

KL-0040-2828 Pressure Gauge (not ill.)

As **KL-0040-2829** but with connector thread 3/8“ NPT.
(e.g. für KL-0215-37)

KL-0040-2890 Safety belt

By using the safety belt **KL-0040-2890** on the vehicle and on the Hydraulic Cylinder **KL-0040-2800**, the latter is prevented from falling off.

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KL-0215-35 M25



Note:
Hydraulic hand pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request.

KL-0215-37 M25



Note:
Hydraulic foot pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request

KL-0215-36 M25



Note:
Air driven hydraulic pump with pressure gauge suitable for the hydraulic cylinder **KL-0040-2200** (10 t.) or **KL-0040-2800** (28 t.) on request.

KL-0215-35 M25 Hydraulic Hand Pump

The Hydraulic Hand Pump **KL-0215-35 M25** may be used in conjunction with Hydraulic Cylinder (17 t.) **KL-0040-2500** to operate a variety of KLANN Pulling and Pressing tools.
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2529**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Specification: (KL-0215-35 M25)

Part No.	Description	Qty.
KL-0215-33	Hydraulic Hand Pump (without Hose)	1
KL-0215-31	Hydraulic Hose 1,8 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2529	Pressure Gauge	1

Weight:.....7,5 kg Max. Pressure:..... 700 bar

KL-0215-35 Hydraulic Hand Pump (not ill.)

As **KL-0215-35 M25**, but without pressure gauge **KL-0040-2529**.

KL-0215-37 M25 Hydraulic Foot Pump

The Hydraulic Foot Pump **KL-0215-37 M25** can be used to power KLANN Press and Puller Tools fitted with Hydraulic Cylinder (17 t.) **KL-0040-2500**.
Advantage: *Both hands free to work.*
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2528**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Specification: (KL-0215-37 M25)

Part No.	Description	Qty.
KL-0215-370	Hydraulic Foot Pump (without Hose)	1
KL-0215-371	Hydraulic Hose 2,5 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2528	Pressure Gauge	1

Weight:.....11 kg Max. Pressure.:..... 700 bar

KL-0215-37 Hydraulic Foot Pump (not ill.)

As **KL-0215-37 M25**, but without pressure gauge **KL-0040-2528**.

KL-0215-36 M25 Air-Driven Hydraulic Pump

Compressed air is used to operate the **KL-0215-36 M25** Operation is by a foot-pedal with 3 positions - forwards, stop and backwards.
The air-operated Hydraulic Pump can be used in conjunction with Hydraulic Cylinder (17 t.) **KL-0040-2500** nd KLANN tools for Bushes, Ball-Joints, Bearings, Drive-Shafts etc.
Note: Hydraulic pressure and the necessary force can be checked while operating the pump at pressure gauge **KL-0040-2529**, (supplied with the tool set) and additional drum-type scale matched to our **KL-0040-2500** hydraulic cylinder (17 t.).

Technical Data:

Maximum Pressure:	700 bar
Operating Pressure:	8 - 12 bar
Weight:	8 kg

Specification: (KL-0215-36 M25)

Part No.	Description	Qty.
KL-0215-360	Hydraulic pump (without Hose)	1
KL-0215-362	Hydraulic Hose 2,5 m with hose-side connector	1
KL-0215-322	Cylinder-side connector1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2529	Pressure Gauge	1

KL-0215-36 Air-Driven Hydraulic Pump (not ill.)

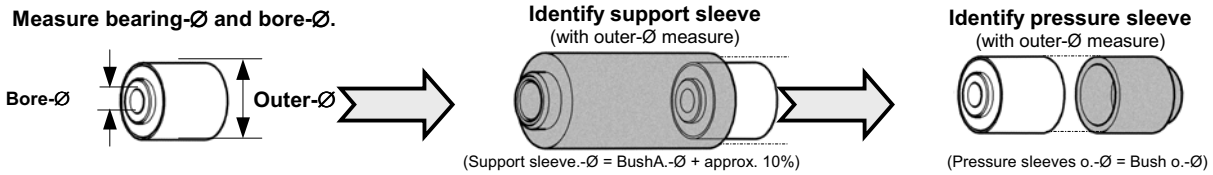
As **KL-0215-36 M25**, but without pressure gauge **KL-0040-2529.**

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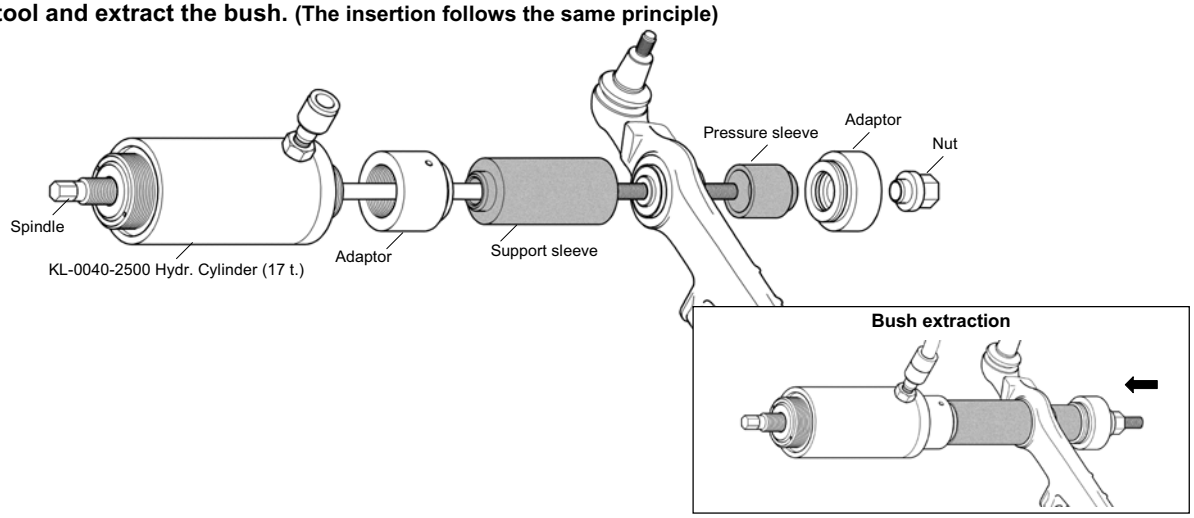
The new KLANN Wheel Bearing/Bush Tool KL-0039-Series !!!!!

Application example: *Bush extraction / insertion by using a Puller Spindle.*

1. **Configuration of the required pieces and tool assembling:**
   Measure bush-Ø, identify spindle, pressure and support sleeve. (See table page 11.4-07)

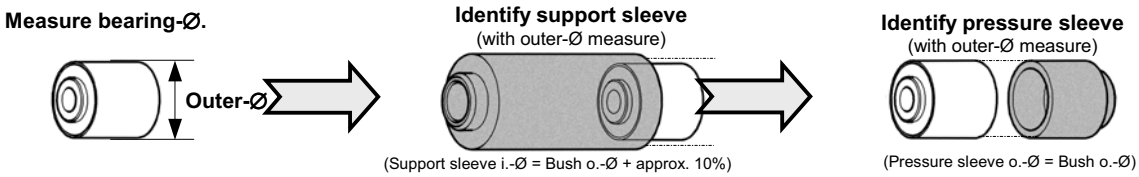


2. **Mount the tool and extract the bush. (The insertion follows the same principle)**

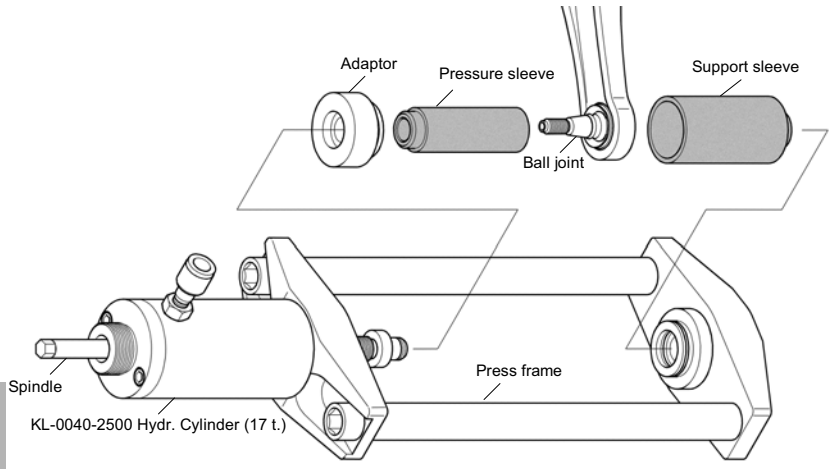


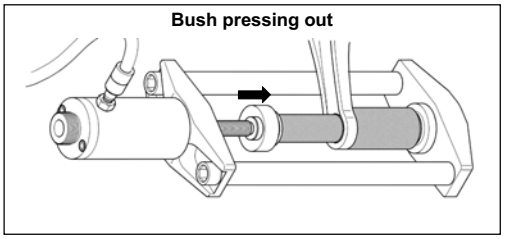
Application example: *Ball Joint / Bush extraction / insertion with Press Frame.*

1. **Configuration of the required pieces and tool assembling:**
   Measure the bush outer-Ø, identify pressure and support sleeve. (See table page 11.4-07)



2. **Mount the tool and press the ball joint out. (The insertion follows the same principle)**

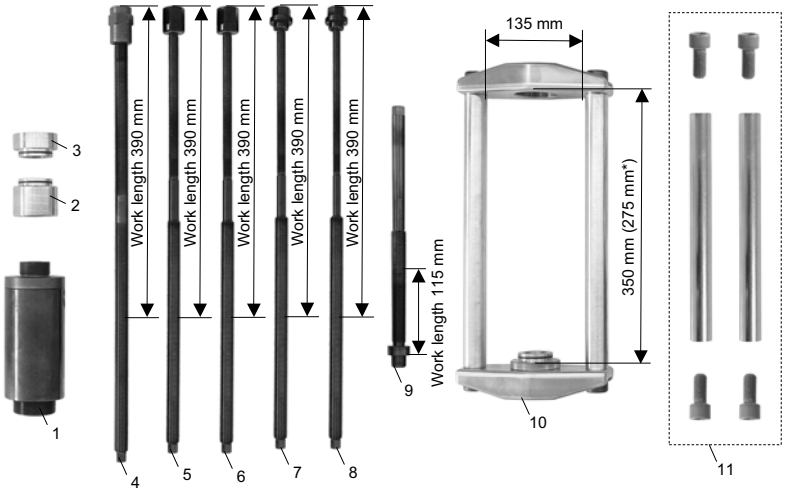




Note: The hydraulic cylinder **KL-0040-2500** shall be operated by a hydraulic pump. See page 11.4-05.

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KL-0039-Series Wheel Bearing / Bush Tool



Drive and base parts

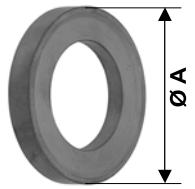
Pos.	Part No.	Description	Qty.
Cylinder:			
1	KL-0040-2500	Hydraulic-cylinder 17 t	1
Adaptor:			
2	KL-0039-1003	Retain adaptor for hydraulik cylinder	1
3	KL-0039-1002	Retain adaptor for Nut M20	1
Spindles			
4	KL-0039-1920	Spindle M20 with clamping nut	1
5	KL-0039-1916	Spindle M16 with shoulder nut	1
6	KL-0039-1914	Spindle M14 with shoulder nut	1
7	KL-0039-1912	Spindle M12 with shoulder nut	1
8	KL-0039-1910	Spindle M10x1.25 with shoulder nut	1
9	KL-0039-1930	Pressure Spindle	1
Press frame:			
10	KL-0039-1130	Press frame	1
Accessory:			
11	KL-0039-111	Frame rods 285 mm long	1

* If using the frame rods KL-0039-111.

4

Application parts ⇒ *Wheel bearing*

Pressure ring:



KL-0039-120 Pressure ring set Ø 54 - 90 mm (Inner-Ø 46 mm):

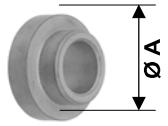
Part No.	Description	Ø A
KL-0039-1254	Pressure ring Ø54	Ø54
KL-0039-1260	Pressure ring Ø60	Ø60
KL-0039-1261	Pressure ring Ø61	Ø61
KL-0039-1262	Pressure ring Ø62	Ø62
KL-0039-1263	Pressure ring Ø63	Ø63
KL-0039-1264	Pressure ring Ø64	Ø64
KL-0039-1265	Pressure ring Ø65	Ø65
KL-0039-1266	Pressure ring Ø66	Ø66
KL-0039-1267	Pressure ring Ø67	Ø67
KL-0039-1268	Pressure ring Ø68	Ø68
KL-0039-1269	Pressure ring Ø69	Ø69

Part No.	Description	Ø A
KL-0039-1270	Pressure ring Ø70	Ø70
KL-0039-1271	Pressure ring Ø71	Ø71
KL-0039-1272	Pressure ring Ø72	Ø72
KL-0039-1273	Pressure ring Ø73	Ø73
KL-0039-1274	Pressure ring Ø74	Ø74
KL-0039-1275	Pressure ring Ø75	Ø75
KL-0039-1276	Pressure ring Ø76	Ø76
KL-0039-1277	Pressure ring Ø77	Ø77
KL-0039-1278	Pressure ring Ø78	Ø78
KL-0039-1279	Pressure ring Ø79	Ø79
KL-0039-1280	Pressure ring Ø80	Ø80

Part No.	Description	Ø A
KL-0039-1281	Pressure ring Ø81	Ø81
KL-0039-1282	Pressure ring Ø82	Ø82
KL-0039-1283	Pressure ring Ø83	Ø83
KL-0039-1284	Pressure ring Ø84	Ø84
KL-0039-1285	Pressure ring Ø85	Ø85
KL-0039-1286	Pressure ring Ø86	Ø86
KL-0039-1287	Pressure ring Ø87	Ø87
KL-0039-1288	Pressure ring Ø88	Ø88
KL-0039-1289	Pressure ring Ø89	Ø89
KL-0039-1290	Pressure ring Ø90	Ø90

Accessory:		
KL-0039-1502	Pressure ring Ø93	Ø93

Centring ring:



KL-0039-130 Centring ring set Ø 25 - 60 mm:

Part No.	Description	Ø A
KL-0039-1325	Centring ring Ø25	Ø25
KL-0039-1326	Centring ring Ø26	Ø26
KL-0039-1327	Centring ring Ø27	Ø27
KL-0039-1328	Centring ring Ø28	Ø28
KL-0039-1329	Centring ring Ø29	Ø29
KL-0039-1330	Centring ring Ø30	Ø30
KL-0039-1331	Centring ring Ø31	Ø31
KL-0039-1332	Centring ring Ø32	Ø32
KL-0039-1333	Centring ring Ø33	Ø33
KL-0039-1334	Centring ring Ø34	Ø34
KL-0039-1335	Centring ring Ø35	Ø35
KL-0039-1336	Centring ring Ø36	Ø36

Part No.	Description	Ø A
KL-0039-1337	Centring ring Ø37	Ø37
KL-0039-1338	Centring ring Ø38	Ø38
KL-0039-1339	Centring ring Ø39	Ø39
KL-0039-1340	Centring ring Ø40	Ø40
KL-0039-1341	Centring ring Ø41	Ø41
KL-0039-1342	Centring ring Ø42	Ø42
KL-0039-1343	Centring ring Ø43	Ø43
KL-0039-1344	Centring ring Ø44	Ø44
KL-0039-1345	Centring ring Ø45	Ø45
KL-0039-1346	Centring ring Ø46	Ø46
KL-0039-1347	Centring ring Ø47	Ø47
KL-0039-1348	Centring ring Ø48	Ø48

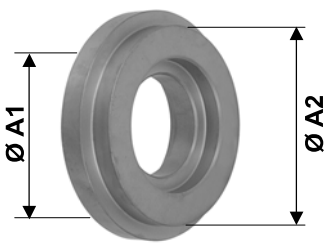
Part No.	Description	Ø A
KL-0039-1349	Centring ring Ø49	Ø49
KL-0039-1350	Centring ring Ø50	Ø50
KL-0039-1351	Centring ring Ø51	Ø51
KL-0039-1352	Centring ring Ø52	Ø52
KL-0039-1353	Centring ring Ø53	Ø53
KL-0039-1354	Centring ring Ø54	Ø54
KL-0039-1355	Centring ring Ø55	Ø55
KL-0039-1356	Centring ring Ø56	Ø56
KL-0039-1357	Centring ring Ø57	Ø57
KL-0039-1358	Centring ring Ø58	Ø58
KL-0039-1359	Centring ring Ø59	Ø59
KL-0039-1360	Centring ring Ø60	Ø60

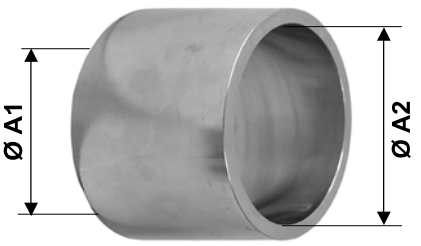
KL-0039-140 Housing set (bearing extension):

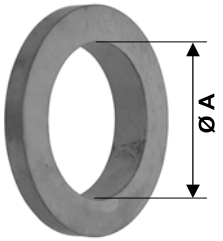
Bearing cap:		Housing:		Centring rings:	
Part No.	Description	Part No.	Description	Part No.	Description
KL-0039-1401	Bearing cap Ø A1: 84 / Ø A2: 90	KL-0039-1402	Housing Ø A1: 84 / Ø A2: 90	KL-0039-1413	Centring ring Ø A: 70
				KL-0039-1414	Centring ring Ø A: 75
				KL-0039-1415	Centring ring Ø A: 80

Special plates:

Part No.	Description
KL-0039-1503	Adaptor ring conical
KL-0039-1504	Adaptor ring conical
KL-0039-1505	Adaptor ring cylindric







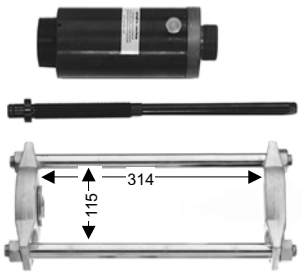


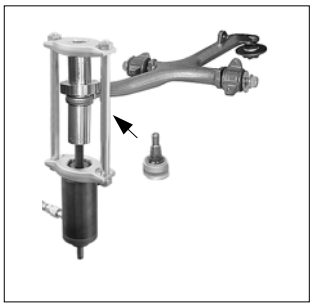
11 HGV

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KL-0043-829

Opel/Vauxhall, Renault





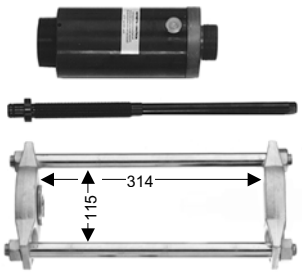
KL-0043-8298



,

KL-0043-810

Opel/Vauxhall, Renault





KL-0043-8101

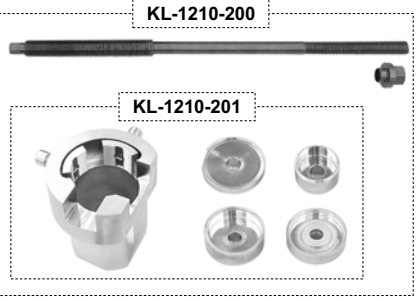


KL-1210-2

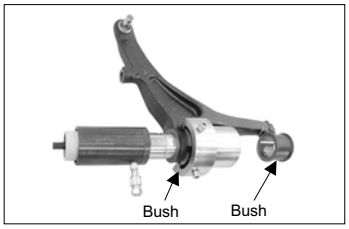
Opel/Vauxhall, Renault



KL-1210-200



KL-1210-201



KL-0043-829 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-829** allows quick, easy and safe removal and replacement of the ***Ball-Joint in the upper front wishbone***. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description	Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-0043-8200	Press frame short
KL-0040-2510	Pressure spindle	KL-0043-8298	Press-/support tube set

KL-0043-8298 Press/Support Tube Set

consists of:

Part No.	Description	Part No.	Description
KL-0043-8269	Press-/support tube	KL-0043-8276	Press-/support tube
KL-0043-8233	Press-/support tube	KL-0043-8279	Press-/support tube

KL-0043-810 Press Tool with Hydr. Cylinder

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Press Tool **KL-0043-810** allows quick, easy and safe removal and replacement of the Ball-Joint in the lower front wishbone. Stubborn and corroded Ball-Joints may be easily replaced within minutes.

Replacement of the Ball-Joint is performed on the vehicle, thus eliminating the need to remove and replace the wishbone.

consists of:

Part No.	Description	Part No..	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-0043-8200	Press frame
KL-0040-2510	Pressing spindle	KL-0043-8101	Press/support tube set

KL-0043-8101 Press/Support Tube Set

consists of:

Part No..	Description	Part No..	Description
KL-0043-8237	Press/support tube	KL-0043-8274	Press/support tube
KL-0043-8238	Press/support tube	KL-0043-8276	Press/support tube

KL-1210-2 Bush Extractor with Hydr.Cylinder (German Utility Model)

Suitable for Renault Master II ('98 onwards) and Opel/Vauxhall Movano I ('98 onwards)

The Bush Extractor **KL-1210-2** allows quick, easy and safe removal and replacement of both Bushes in the lower front wishbone.

consists of:

Part No.	Description	Part No.	Description
KL-0040-2500	Hydraulic Cylinder 17 t.	KL-1210-200	Bush extractor without
KL-0040-2552	Adaptor M42x2 / Ø30		Hydraulic cylinder 17 t.

KL-1210-200 Bush Extractor without Hydr. Cylinder

consists of:

Part No.	Description	Part No.	Description
KL-0040-2543	Pull spindle M14 with nut	KL-1210-201	Press/support tube set

KL-1210-201 Press/Support Tube Set

consists of:

Part No.	Description	Part No.	Description
KL-1210-2001	Support tube	KL-1210-2004	Pressure piece
KL-1210-2002	Pressure piece	KL-1210-2005	Pressure piece
KL-1210-2003	Support tube		

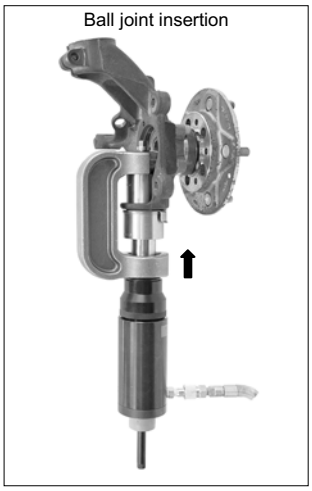
Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

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KL-0626-10

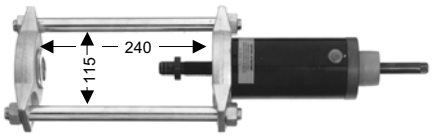
Ford Transit





KL-0043-855 C

Mercedes Sprinter VW LT









Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-0626-10 Hydraulic Press Tool Kit
(German Utility Model)

Suitable for Ford Transit 2002 onwards, front axle.

The support joint can be pressed out of or into the wheel bearing housing quickly and without difficulty, using Press Tool **KL-0626-10**. The support joint can be removed from or installed on the vehicle in just a few minutes, without the wheel bearing housing having to be removed.

Specification

Pos.	Part No.	Description	Qty.
	KL-0626-10	**Hydraulic Press Tool with Hydraulic Cylinder**	**1**
	consists of:		
	KL-0626-100	Hydraulic Press Tool without Hydraulic Cylinder	**1**
8	KL-0040-2500	Hydraulic cylinder 17t	1
9	KL-0040-2510	Press spindle	1

Pos.	Part No.	Description	Qty.
	KL-0626-100	**Hydraulic Press Tool Kit without Hydraulic Cylinder**	**1**
	consists of:		
1	KL-0626-1001	Press Frame	1
2	KL-0626-1002	Coil screw	1
3	KL-0174-559	Adaptor 2 1/4"-14UNS to 2 1/4"-14UNS	1
4	KL-0626-1003	Press Tube (removal) Ø: 38mm	1
5	KL-0626-1004	Support Tube (removal) Ø: 66,5mm	1
6	KL-0626-1005	Support Tube (replacement) Ø: 54mm	1
7	KL-0626-1006	Press Tube (replacement) Ø: 56mm	1

KL-0043-855 C Press Tool
with Hydraulic Cylinder (Patented)

Suitable for Mercedes Sprinter onwards '95 and VW LT onwards '96.

To remove and insert ball joints with the special manufactured press and support sleeves within a few minutes on the vehicle.

Advantages:

- High time savings
- Easy to operate.
- Tool cannot tilt to one side.
- Avoid mischances.
- Hydraulic Cylinder 17 to. **KL-0040-2500** is all-purpose also with other KLANN-tools useable.

Contents:

Part No.	Description	Qty.
KL-0043-855 C	**Press Tool with Hydraulic Cylinder**	**1**
consists of:		
KL-0043-8510	Press frame short	1
KL-0040-2500	Hydraulic cylinder 17t. (without coupling)	1
KL-0040-2510	Press spindle	1
KL-0043-8591 C	**Press/ support sleeve set**	1

Part No.	Description	Qty.
KL-0043-8591 C	**Press/ support sleeve set**	**1**
consists of:		
KL-0043-8236-1	Support sleeve (I)	1
KL-0043-8236-2	Support sleeve (II)	1
KL-0043-8236-3	Clamping plates (III)	1
KL-0043-8236-4	Cylinder screw (IV)	3
KL-0043-8236-5	Distance tube (V)	1
KL-0043-8531	Press sleeve (VI)	1
KL-0043-8279	Press sleeve (VII)	1
KL-0043-8578	Press/support sleeve (VIII)	1

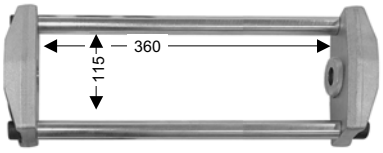
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KL-1009-10



Mercedes Actros

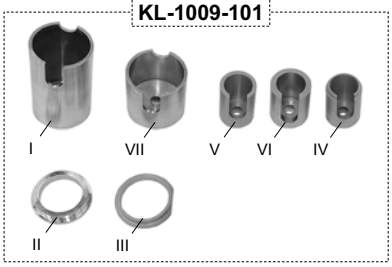




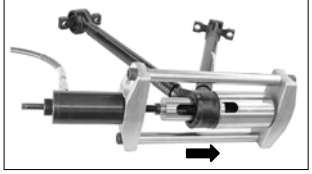
Anti-roll bar bushings



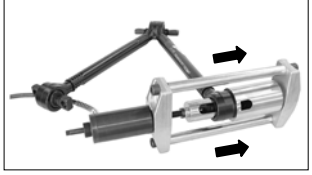
KL-1009-101



Front anti-roll bar bushings extraction



Rear anti-roll bar bushings extraction



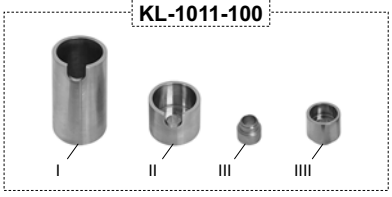
Note: A hydraulic pump will be required to drive the Hydraulic Cylinder **KL-0040-2500**.

KL-1011-10

Renault



KL-1011-100



Brass bushing removal



Brass bushing insertion



KL-1009-10 Press Tool (with hydr. Cylinder) (Truck rear-axle triangulated control arm)

Suitable for 69 mm, 77 mm, 89 mm and 92 mm diameter anti-roll bar bushings on the triangulated rear-axle control arms of the Mercedes Actros.

The anti-roll bar bushings on the triangulated suspension control arms can be removed or installed quickly and without difficulty using press tool **KL-1009-10**.

Advantages:

- High Time Savings.
- Easy Handling.
- Avoidance from accidents.
- Hydr. Cylinder 17 t. **KL-0040-2500** can be used on other KLANN-Tools. (see Site 4-02 - 4-03)

Contents:

Part No.	Description	Qty.
KL-1009-10	**Hydraulic Press Tool Kit 17 t.**	**1**
consists of:		
KL-1009-101	**Sleeve Set**	**1**
KL-0043-902	Press Frame	1
KL-0040-2500	Hydraulic Cylinder 17t. (without coupling)	1
KL-0040-2510	Press Spindle	1

Part No.	Description	Qty.
KL-1009-101	**Sleeve Set**	**1**
consists of:		
KL-1009-1001	Support Sleeve, long (I)	1
KL-1009-1002	Adaptor Ring (II)	1
KL-1009-1003	Adaptor Ring degraded (III)	1
KL-1009-1004	Support Sleeve (IV)	1
KL-1009-1005	Support Sleeve (V)	1
KL-1009-1006	Support Sleeve (VI)	1
KL-1009-1007	Support Sleeve, short (VII)	1

KL-1011-10 Bush Extractor with Hydraulic Cylinder

Suitable for brass bushings Ø 45 mm, e.g. Front Leaf Spring Renault Premium (1997 - 2005) and Magnum AE.

The brass bushings on the front leaf spring can be removed or installed quickly and without difficulty using press tool **KL-1011-10**.

Advantages:

- High Time Savings.
- Easy Handling.
- Avoidance from accidents.
- Hydr. Cylinder 17 t. **KL-0040-2500** can be used on other KLANN-Tools. (see Site 4-02 - 4-03)

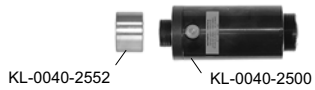
Contents:

Part No.	Description	Qty.
KL-1011-10	**Bush Extractor with Hydraulic Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic cylinder 17t	1
KL-0039-1003	Retain adaptor for hydraulic cylinder with O-ring	1
KL-0040-2545-1	Puller spindle M18	1
KL-0040-2545-3	Nut M18	1
KL-1011-100	Sleeve set	1

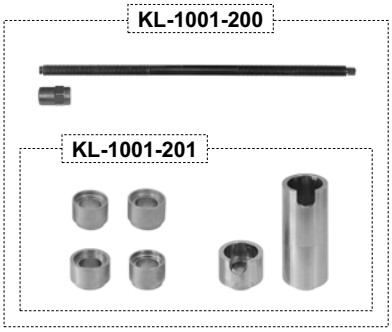
Part No.	Description	Qty.
KL-1011-100	**Sleeve Set**	**1**
consists of:		
KL-1011-1001	Support sleeve long Ø62 (I)	1
KL-1011-1002	Support sleeve short Ø62 (II)	1
KL-1011-1003	Press piece (III)	1
KL-0039-1644	Press/ Support sleeve short Ø44 (IIII)	1

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KL-1001-20

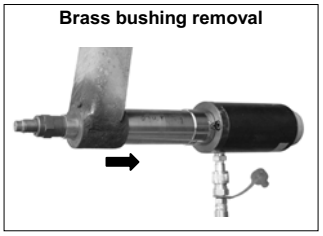


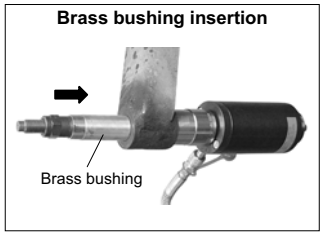
HGV Trailer



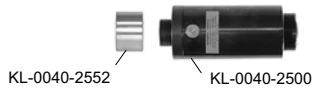
Brass bushing







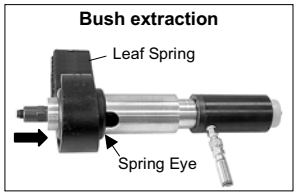
KL-1001-10

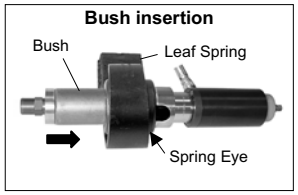


HGV Bushes Bore-Ø 68



ROR, SAF, Trailor





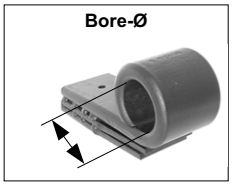
Accessory:

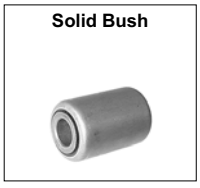
KL-1001-1013



KL-0040-9005







KL-1001-20 Bush Extractor
with Hydraulic Cylinder (Truck trailer towbar)

Suitable for brass bushings 100 mm long and with internal/external diameters I- 28 / E- 34 mm, I-30 / E-34 mm, I-30 / E-35 mm, I-30 / E-36 mm, I-30 / E-37 mm and I-30 / E-38 mm on the towbars of truck trailers.

For quick, easy removal and installation of the brass bushings in the towbar.

Advantages:

- High Time Savings
- Easy Handling
- Avoidance from accidents
- Hydraulic Cylinder 17 t. **KL-0040-2500** can be used on other KLANN-Tools. (see page 4-02 - 4-03)

Contents:

Part No.	Description	Qty.
KL-1001-20	**Bush Extractor with Hydr. Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17t. (without coupling)	1
KL-0040-2552	Adaptor M42x2 to Ø30	1
KL-1001-200	**Bush Extractor without Hydr. Cylinder**	**1**

Part No.	Description	Qty.
KL-1001-200	**Bush Extractor without Hydr. Cylinder**	**1**
consists of:		
KL-0040-2547-1	Puller Spindle M20 x 550	1
KL-0040-2547-3	Actuating Nut M20	1
KL-1001-201	Sleeve Set HGV Trailers Towbar	1

Part No.	Description	Qty.
KL-1001-201	**Sleeve Set HGV Trailers Towbar**	**1**
consists of:		
KL-1001-2001	Sleeve Set, long Ø 40/52	1
KL-1001-2002	Sleeve Set, short Ø 40/52	1
KL-1001-2003	Press Piece Ø 30/35; Ø 30/36	1
KL-1001-2004	Press Piece Ø 30/37; Ø 30/38	1
KL-1001-2005	Press Piece Ø 30/34	1
KL-1001-2006	Press Piece Ø 28/34	1

KL-1001-10 Bush Extractor for HGV Ø 68
with Hydraulic Cylinder

For Bushes with 68 mm Bore Ø e.g. trailing arms on ROR, SAF and Trailor trailers and semi-trailers, etc. with air-suspension.

The KLANN **KL-1001-10** allows quick, easy and safe replacement of solid bushes on HGV axle components such as Trailing Arms, Anti-Roll Bars, Leaf Springs, Spring Mounts, etc.

Repairs can be made without removing the suspension components from the vehicle. Time savings up to 4 hours.

Contents:

Part No.	Description	Qty.
KL-1001-10	**Bush Extractor with Hydr. Cylinder**	**1**
consists of:		
KL-0040-2500	Hydraulic Cylinder 17t. (without coupling)	1
KL-0040-2552	Adaptor M42x2 to Ø 30	1
KL-1001-100	Bush Extractor without Hydr. Cylinder	1

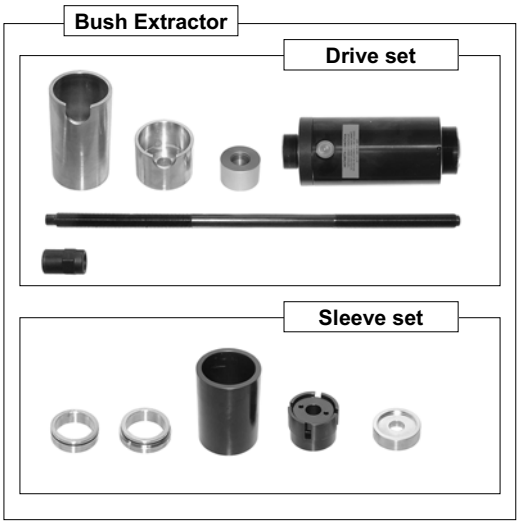
Part No.	Description	Qty.
KL-1001-100	**Bush Extractor without Hydr. Cylinder**	**1**
consists of:		
KL-1001-1001	Support Sleeve, long	1
KL-1001-1002	Support Sleeve, short	1
KL-1001-1003	Press Piece	1
KL-0040-2546-1	Puller Spindle M20 x 550	1
KL-0040-3009	Actuating Nut	1

Accessory: KL-1001-1013 Press Piece
Suitable for Bushes with Bore-Ø 57 mm.

Accessory: KL-0040-9005 Press Plate No.5
Suitable for Bushes with Bore-Ø 44,7 mm.
e.g. Renault PREMIUM, Magnum Leaf Spring.

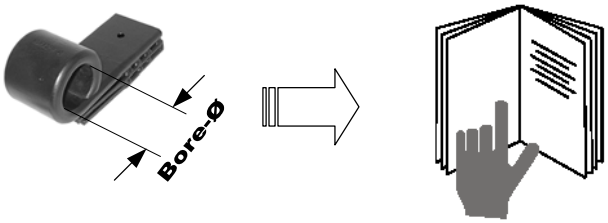
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Bush Extractor KL-1010-Series

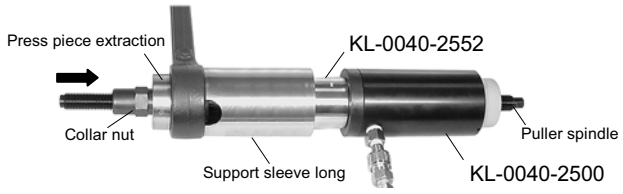


Application example / procedure:

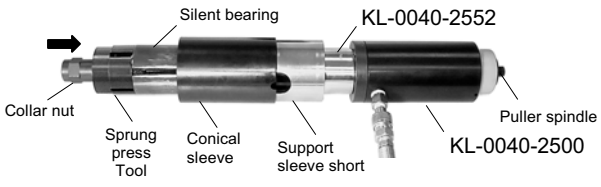
1. **Verify bore diameter and choose tool from the table** (see page 11.4-13)**.**



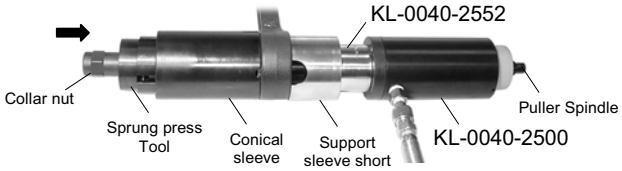
2. **Bearing extraction**



3. **Bearing pretensioning**



4. **Bearing insertion**



KL-1010-1.. Series Bush Extractor HGV

(German Utility Model)

The replacement of splitted silentblocs so far was a big problem for the mechanic, as they are difficult to remove and, moreover, have to be re-assembled under severe pre-tensioning conditions.

The KLANN extractor for truck silentblocs **KL-1010-... Series** allows, together with the hydraulic pump **KL-0215-35 M25, KL-0215-36 M25** or **KL-0215-37 M25** (hose, coupling, adapter and manometer included), a quick, clean and safe extraction and replacement of splitted silentblocs on e.g. stabilizers, thrust rods, leaf spring eyes, spring supports and further axis suspension components.

Silentbloc extraction and replacement can be carried out at the work bench or on the vehicle, if room conditions allow it.

The extractors combinable with the tried and tested KLANN modular assembly system consist of a set of sleeves of the required Ø and relative drive set. A great advantage of this system is that for further Ø or application ranges a small number of new components is necessary.
(⇒ huge money savings).

Advantages:

- High Time and Cost Savings
- Easy Handling
- Avoidance from accidents
- Hydraulic Cylinder 17 t. **KL-0040-2500** can be used on other KLANN-Tools. (see page 4-02 - 4-03)

Application example / procedure:

1. **Verify bore-Ø and choose tool from the table.** (see page 11.4-13)**.**

2. **Silentbloc extraction:**

   Position the extractor as shown in Fig. 2 and extract the silentbloc by operating the hydraulic pump.

3. **Silentbloc insertion**
   ⇒ new silentbloc pre-tensioning:

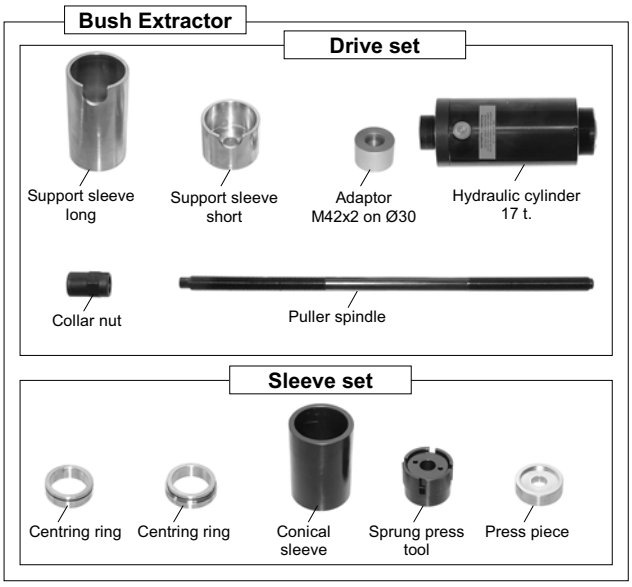
   Position the extractor as shown in Fig. 3 and settle the new silent-type bearing in the conical sleeve. The silentbloc is pre-tensioned on the sleeve inside cone. The sprung thrust plate guarantees a suitable support during the whole process.

4. **Silentbloc insertion:**

   Position the extractor as shown in Fig. 4 and settle the pre-tensioned silentbloc in the bore.

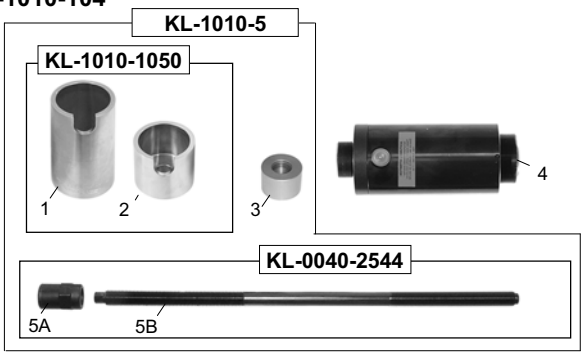
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Bush Extractor KL-1010-Series

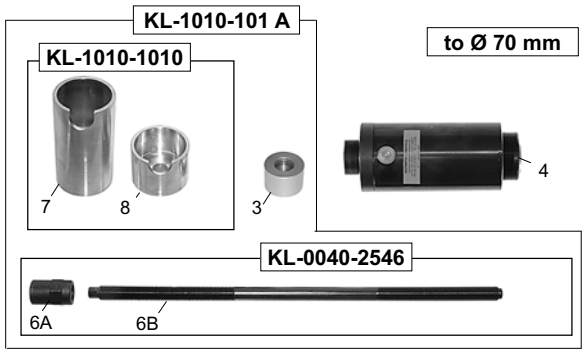


Drive Sets:

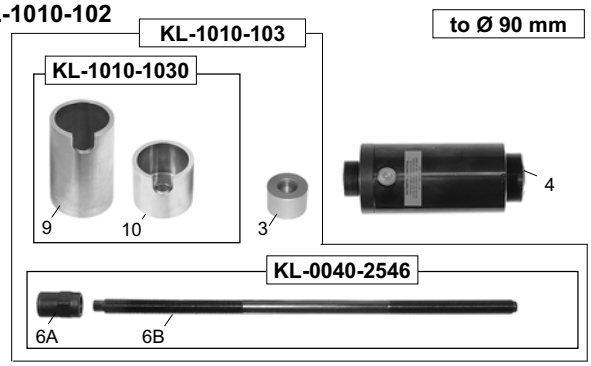
KL-1010-104 — to Ø 50 mm



KL-1010-100 A — to Ø 70 mm



KL-1010-102 — to Ø 90 mm



KL-1010-1.. Series Bush Extractor for HGV
(German Utility Model)

Bore-Ø Application examples	Part-No. Drive	Part-No. Sleeve set
Ø 45 mm (disassembled Ø 48 mm) e.g. MAN busses (articulated bus 313/3) Front axle stabilizer	**KL-1010-104**	**KL-1010-180**
Ø 48 mm (disassembled Ø 50 mm) e.g. MAN busses (articulated bus 313/3) Front axle stabilizer	**KL-1010-104**	**KL-1010-190**
Ø 55 mm (disassembled Ø 57 mm) e.g. MAN AWD L80 (12t.), L90 (13t.), M34 (14t.), M78 (18t.) Front spring bracket - back	**KL-1010-100 A**	**KL-1010-110**
Ø 58 mm (disassembled Ø 60 mm) e.g. Mercedes SK leaf spring	**KL-1010-100 A**	**KL-1010-170**
Ø 60 mm (disassembled Ø 62 mm) e.g.. Mercedes Actros front leaf spring	**KL-1010-100 A**	**KL-1010-120**
Ø 63 mm (disassembled Ø 65 mm) e.g. MAN TGA Front spring bracket - back	**KL-1010-100 A**	**KL-1010-130**
Ø 65 mm (disassembled Ø 70 mm) e.g. Mercedes Actros front strut-stabilizator	**KL-1010-100 A**	**KL-1010-140**
Ø 68 mm (disassembled Ø 70 mm) e.g. MAN F2000 leaf spring	**KL-1010-102**	**KL-1010-210**
Ø 84 mm (disassembled Ø 87 mm) e.g. Mercedes busses O405, O408, Citaro.	**KL-1010-102**	**KL-1010-160**

KL-1010-104 Drive Sets for Bushes
to Ø 50mm (with Hydraulic Cylinder)

consists of:

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 t. (without coupling)	1
	KL-1010-105	**Drive Set (without Hydraulic Cyl.)**	**1**

KL-1010-105 Drive Set without Hydraulic Cylinder *consists of::*

Pos.	Part No.	Description	Qty.
	KL-0040-2544	**Puller Spindle M16 with Nut**	**1**
3	KL-0040-2552	Adaptor M42x2 on Ø30	1
	KL-1010-1050	**Drive Sleeve Set**	**1**

KL-0040-2544 Puller Spindle M16 with Nut *consists of::*

Pos.	Part No.	Description	Qty.
5B	KL-0040-2544-1	Puller Spindle M16	1
5A	KL-0040-2544-2	Nut	1

KL-1010-1050 Drive Sleeve Set *consists of:*

Pos.	Part No.	Description	Outer-Ø	Inner-Ø	Qty.
7	KL-1010-1052	Support sleeve long	62mm	52mm	1
8	KL-1010-1051	Support sleeve short	62mm	52mm	1

KL-1010-100 A Drive Set for Bushes
to Ø 70mm (with Hydraulic Cylinder)

consists of:

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 t. (without coupling)	1
	KL-1010-101 A	**Drive Set without Hydraulic Cyl.**	**1**

KL-1010-101 A Drive Set without Hydraulic Cylinder *consists of:*

Pos.	Part No.	Description	Qty.
	KL-0040-2546	**Puller Spindle M20x550 with Nut**	**1**
3	KL-0040-2552	Adaptor M42x2 on Ø30	1
	KL-1010-1010	**Drive Sleeve Set**	**1**

KL-0040-2546 Puller Spindle M20x550 with Nut *consists of:*

Pos.	Part No.	Description	Qty.
6B	KL-0040-2546-1	Puller Spindle M20x550	1
6A	KL-0040-3009	Nut	1

KL-1010-1010 Drive Sleeve Set *consists of:*

Pos.	Part No.	Description	Outer-Ø	Inner-Ø	Qty.
1	KL-1010-1001	Support sleeve long	79,5mm	70mm	1
2	KL-1010-1006	Support sleeve short	79,5mm	70mm	1

KL-1010-102 Drive Set for Bushes
to Ø 90mm (with Hydraulic Cylinder)

consists of:

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 t. (without coupling)	1
	KL-1010-103	**Drive Set (without Hydraulic Cyl.)**	**1**

KL-1010-103 Drive Set without Hydraulic Cylinder *consists of:*

Pos.	Part No.	Description	Qty.
	KL-0040-2546	**Puller Spindle M20x550 with Nut**	**1**
3	KL-0040-2552	Adaptor M42x2 on Ø30	1
	KL-1010-1030	**Drive Sleeve Set**	**1**

KL-0040-2546 Puller Spindle M20x550 with Nut *consists of:*

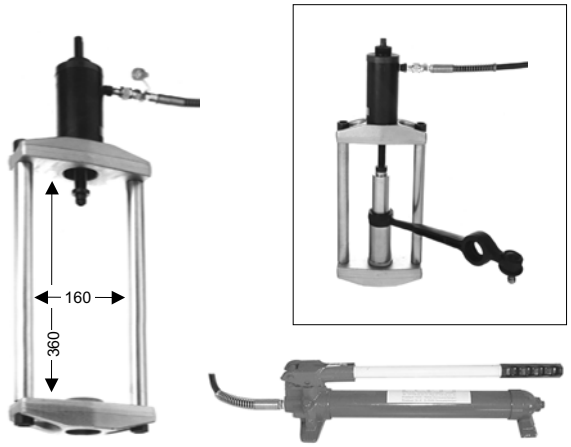
Pos.	Part No.	Description	Qty.
6B	KL-0040-2546-1	Puller Spindle M20x550	1
6A	KL-0040-3009	Nut	1

KL-1010-1030 Drive Sleeve Set *consists of:*

Pos.	Part No.	Description	Outer-Ø	Inner-Ø	Qty.
9	KL-1010-1003	Support sleeve long	99,5mm	90mm	1
10	KL-1010-1004	Support sleeve short	99,5mm	90mm	1

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KL-0043-900



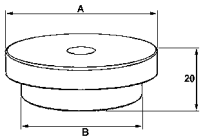
KL-0159-12



Application



Dimensions



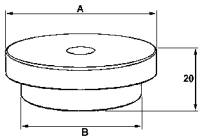
KL-0159-11



Application



Dimensions



KL-0043-900 Hydraulic Press 17 t

The Hydraulic Press **KL-0043-900** in conjunction with Press Tools **KL-0043-8295, KL-0043-8595** and Press Tools **KL-0159-11 and KL-0159-12** may be used for dismantling and assembling Drive Shafts, Suspension Bolts, Bearings, Bushes, etc.

Due to the handy construction the Hydraulic Press may also be used on the vehicle.

Weight:.....26,6 kg

Contents:

Part No:	Description
KL-0043-900	**Hydraulic Press**
consists of:	
KL-0043-902	Press Frame
KL-0040-2500	Hydraulic Cylinder
KL-0040-2510	Spindle
KL-0215-35	Hydraulic hand pump with hose and coupling

Technical Data Press Frame KL-0043-902:

Total height	430 mm	Rod-Ø	30 mm
Working height	360 mm	Thread to accept Cylinder	2¼"-14UNS
Total width	220 mm	Adaptor	2¼"-14UNS to Ø 30 mm
Working width	160 mm	Weight	14,2 kg
Depth	100 mm		

KL-0159-12 Pressure Piece Set Ø 50-78 mm

For extraction and assembly of Bearings, Shafts, Bushes, etc. in conjunction with Hydraulic Press, Puller Tools or Klann **KL-0043-82, KL-0043-85** and **KL-0043-90**.

Mounting diameter 20 mm,
Ø A 52 - 80 mm in 2 mm steps,
Ø B 50 - 78 mm in 2 mm steps.

The Set consists of a Pilot, a Blank and 15 Pressure Pieces.

KL-0159-11 Pressure Piece Set Ø 20-48 mm

For extraction and assembly of Bearings, Shafts, Bushes, etc. in conjunction with Hydraulic Press, Puller Tools or Klann **KL-0043-82, KL-0043-85** and **KL-0043-90**.

Mounting diameter 10 mm,
Ø A 22 mm - 50 mm in 2 mm steps,
Ø B 20 mm - 48 mm in 2 mm steps.

The Set consists of a Pilot, a Blank and 15 Pressure Pieces.

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KL-0140-36

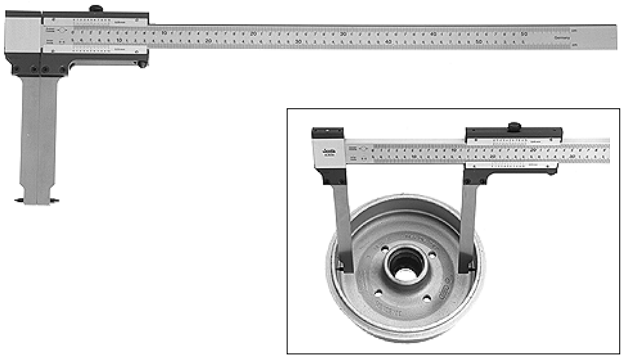


KL-0140-36 Slide Caliper Digital

Open slide, hardened, with cross-points and depth gauge. Description: stainless steel.

Range:..... 155 mm
Jaw length:..... 40 mm
Vernier:..... 0,01 mm
Weight:..... 200 g

KL-0140-32



KL-0140-32 Slide Caliper for Brake Drum

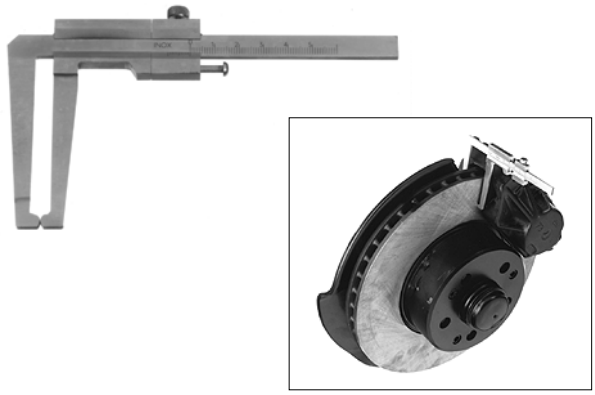
Measuring-surfaces stainless steel, rule and slide produced of aluminium-profile, open slide, fixing-screw, vernier parallax free reading.

Range:..... 500 mm
Jaw length:..... 250 mm
Vernier:..... 1/20 mm + 1/128"
Weight:..... 1200 g

Accessory:

KL-0140-3201 Wooden Case for Slide Caliper

KL-0140-33



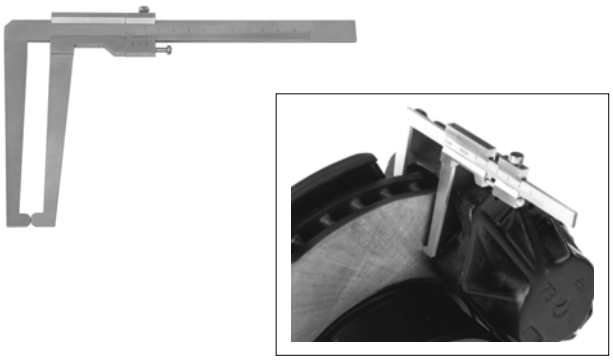
KL-0140-33 Slide Caliper for Brake Disc

To measure the thickness of installed brake-disks. The tool is hardened and contains a locking screw.

Description: stainless-steel

Range:..... 50 mm
Jaw length:..... 75 mm
Vernier:..... 1/10 mm
Weight:..... 110 g

KL-0140-38



KL-0140-38 Slide Caliper for Brake Plates

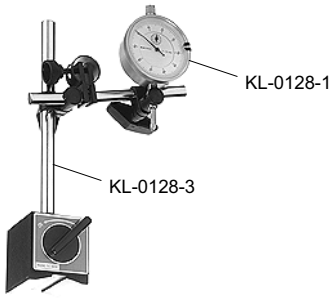
To measure the thickness of installed brake-disks. The tool is hardened and contains a locking screw.

Description: stainless steel.

Range:..... 100 mm
Jaw length..... 120 mm
Vernier:..... 1/10 mm
Weight:..... 240 g

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KL-0128-31



Note: Further information, measure instruments and accessories see chapter 10.

KL-0140-41



Note: The frame micrometer **KL-0140-40** is delivered in a storage case.

KL-0140-40



Note: The frame micrometer **KL-0140-40** is delivered in a storage case.

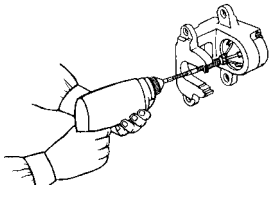
KL-0114-22



KL-0199-13



Brake Caliper Cylinder cleaning



KL-0128-31 Dial Gauge Stands
with Dial Indicator

Consists of **KL-0128-1** and **KL-0128-3**.

- To measure the wobble of the brake disc.
- For adjusting the engine and transmission

Strong rods of tool-steel, with fine adjustment for dial-gauge-clamp, prismatic magnetic base.

KL-0128-1 Dial Indicator Ø 58 mm

Description: Stem and spindle stainless steel, accuracy to DIN 878-A.

Reading: .....0,01 mm
Measuring Range: .....10 mm
Housing -Ø: .....58 mm
Stem -Ø: .....8 mm
Set nut revolution by 360°:.....1 mm

KL-0128-3 Dial Gauge Stand without Dial Indicator

KL-0140-40 Frame Micrometer

With ratchet and clamping-ring, enclosed thread, spindle hardened and adjustable, with hand guard insulating pads, reading parts chrome plated, with check-gauge. Description: Chrome-plated.

Range: .....0-25 mm
Pitch:.....½ mm
Weight: .....350 g

KL-0140-41 Frame Micrometer

With ratchet and clamping-ring, enclosed thread, spindle hardened and adjustable, with hand guard insulating pads, reading parts chrome plated, with check-gauge. Description: Chrome-plated.

Range: .....25-50 mm
Pitch:.....½ mm
Weight: .....500 g

KL-0114-22 Brake Spring Pliers (HGV)

Extra strong version. Suitable for HGV Air or Hydraulic drum brakes.

For removal and replacement of brake-shoe springs.

Length:.....535 mm
Weight: .....1150 g

KL-0199-13 Hone Tool Ø 38-79 (Triple-Arm)

Technical Data:

Cylinder-Ø: .....38 - 79 mm
Segment Length: .....25 mm
Hone: ..... 3 pieces
Weight: .....85 g

KL-0199-131 Replacement Stones Set (3 Stone)

Length:.....25 mm
Weight: .....28 g

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KL-0114-2





KL-0114-2 Brake Spring Pliers

With off-set jaws.
For riveted and bonded brake linings.

Length:..... 317 mm
Weight:..... 340 g

KL-0114-7



KL-0114-7 Caliper File

For cleaning the caliper before installing the brake pads.

Length: ..... 220 mm
Weight: ..... 85 g

KL-0114-8



KL-0114-8 Caliper Brush (Steel)

For cleaning the caliper before installing the brake pads.

Length: ..... 220 mm
Weight: ..... 60 g

KL-0114-81

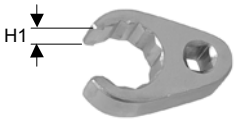


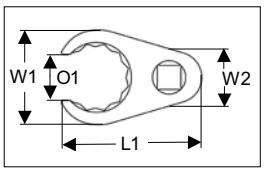
KL-0114-81 Brass-Wire Brush (narrow)

For cleaning sensitive control units, contacts, engine and brake parts, etc.

Width: ..... 11,7 mm
Length: ..... 220 mm
Weight: ..... 60 g

KL-4072-301





KL-4072-301 Open Ring Spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened.

Drive:.....1/2" ☐

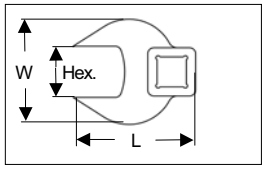
consists of:

Part-No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	15,5 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

Note: Further Spanners see Chapter 10.

KL-4417-900





KL-4417-900 Crow Foot Spanner Set

Special Chrome Vanadium Steel
Matt chrome finish.

Drive:.....3/8"☐

Specially designed to loosen and tighten nuts and bolts in confined spaces.

consists of:

Part No.	Description	Socket size	Width (W)	Length (L)	Weight (g)
KL-4417-16	Crow foot spanner	16	34 mm	40 mm	40 g
KL-4417-17	Crow foot spanner	17	35 mm	42 mm	50 g
KL-4417-18	Crow foot spanner	18	37 mm	45 mm	60 g
KL-4417-19	Crow foot spanner	19	41 mm	48 mm	70 g
KL-4417-21	Crow foot spanner	21	43 mm	51 mm	80 g

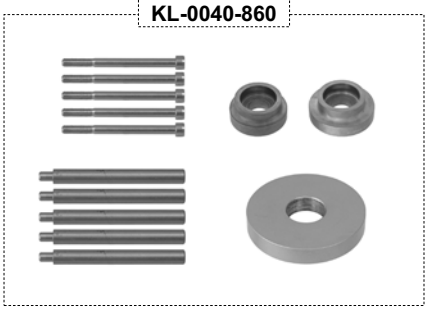
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KL-0040-86

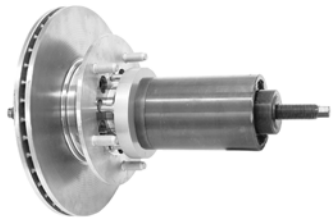
Ford Transit



KL-0040-860



Wheel Bearing Extraction, Brake Disc removal



Accessory: KL-0215-36 M28



KL-0040-86 Wheel Bearing Tool Set
with Hydraulic Cylinder (28 t.)

Suitable for Ford Transit 2002-onwards.

To renew the brake disc or wheel bearing, the wheel hub must be pulled out of the wheel bearing housing together with the hub and the brake disc.

The wheel bearing can be removed or installed within a few minutes, without removing the suspension strut.

Contents:

Part No.	Description	Qty.
KL-0040-86	**Wheel Bearing Puller (with Hydraulic Cyl.)**	**1**
consists of:		
KL-0040-2800	Hydraulic cylinder (28 t)	1
KL-0040-2812-1	Puller spindle	1
KL-0040-2812-2	Clamping nut	1
KL-0040-860	Wheel bearing tool set (without hydr. cyl.)	1

KL-0040-860 Wheel Bearing Tool Set (without Hydraulic Cylinder)

As **KL-0040-86**.
If the Hydraulic Cylinder (28 t) **KL-0040-2800**, the spindle **KL-0040-2812-1** and the clamping nut **KL-0040-2812-2** are already available.

Contents:

Part no.	Description	Qty.
KL-0040-860	**Wheel Bearing Set (without Hydraulic Cylinder)**	**1**
consists of:		
KL-0040-8501	Pressure ring	1
KL-0040-8236-4	Screw M10 x 120	5
KL-0040-8503	Drift	5
KL-0040-8601	Pressure disc Ø 77 mm	1
KL-0040-8602	Pressure disc Ø 68 mm	1

Accessory: (KL-0040-86 not included in delivery)
KL-0215-36 M28 Air Driven Hydraulic Pump

Compressed air is used to operate the **KL-0215-36 M28**. Operation is by a foot-pedal with 3 positions - forwards, stop and backwards.

The air-operated Hydraulic Pump can be used in conjunction with Hydraulic Cylinder **KL-0040-2800** and KLANN tools for Bushes, Ball-Joints, Bearings, Drive-Shafts etc.

Note: With the pressure gauge **KL-0040-2829**, that contains to the set which is fitted with an additional tonne scale, that was made to suit our hydraulic cylinder (28 t) **KL-0040-2800** the hydraulic pressure and the required force can be controlled during working with the pump.

Technical Data:

Maximum Pressure:	700 bar
Operating Pressure:	8 - 12 bar
Weight:	8 kg

Contents:

Part No.	Description	Qty.
KL-0215-36 M28	**Air Driven Hydraulic Pump**	**1**
consists of:		
KL-0215-360	Hydraulic pump without hose	1
KL-0215-362	Hose 2,5 m with hose-side connector	1
KL-0215-322	Cylinder-side connector 1/4"NPT	1
KL-0040-2520	Adaptor 3/8"NPT to ¼"NPT	1
KL-0040-2829	Pressure gauge	1

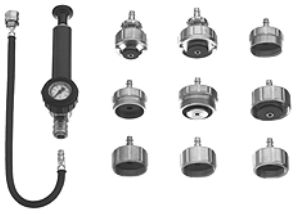
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KL-0124-60

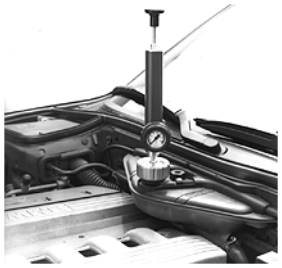


Pump indirectly on Cooling System





Pump directly on Cooling System



Specification:

KL-0124-60 Cooling System Pressure Tester (Universal)
consists of:

Part No..	Description
KL-0124-600	Pump
KL-0124-601	Flexible Tube
KL-0124-620	Adaptor Nr.20 universal Bayonet JointØ 60
KL-0124-621	Adaptor No.21 M48×3
KL-0124-622	Adaptor No.22 M44×3
KL-0124-624	Adaptor No.24 M52×3

Part No.	Description
KL-0124-625	Adaptor Nr.25 M52×4
KL-0124-626	Adaptor Nr.26 jap. Vehicles
KL-0124-627	Adaptor No. 27 M54×4
KL-0124-633	Adaptor No.33 S48×3
KL-0124-634	Adaptor No.34 Tr63×3
KL-0124-6090	Case empty

KL-0124-602 Pump with the Tube Adaptor



Spare Parts

KL-0124-6009 Set for repairing the pump
KL-0124-6001 Manometer for rubber cap

Other Sets for trucks

KL-0124-734 Cooling System Pressure Tester for Iveco
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 19 and 20.

KL-0124-742 Cooling System Pressure Tester for MAN
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 10, 19, 26 and 28.

KL-0124-748 Cooling System Pressure Tester for Mercedes trucks
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 11, 16, 19, 20 and 28.

KL-0124-761 Cooling System Pressure Tester for Renault trucks
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 39 and 40.

KL-0124-766 Cooling System Pressure Tester for Scania
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 13, 14, 17, 19, 20 and 31.

KL-0124-776 Cooling System Pressure Tester for Volvo trucks
consists of: pump KL-0124-600, tube KL-0124-601 and adaptors No. 13, 23 and 35.

KL-0124-60 Cooling System Pressure Tester

The Pressure Tester KL-0124-60 is made from metal. It consists of a quick clutch, a pressure relief valve and a flexible tube. This tool was developed to control the sealing of the cooling systems on vehicles. The precision manometer is protected by a rubber cap. There is a wide range of adaptors for different radiators and compensating tanks.

Advantages:

- Applicable in the long run and with a high temperature while the pump and the adaptor are made of metal (brass).
- There is also a high precision of pump and adaptor.
- A safety valve is included.
- It is possible to put the pump on the cooling system directly or otherwise to connect the pump to the cooling system with the flexible tube.

Technical Data:

- Max pressure of the hand pump: ..... (36 psi).... 2,5 bar
- Weight of the pump with tube: ..... 1,1 kg
- Weight KL-0124-60 complete: ..... 7,9 kg
- Weight of the empty case: ..... 2,5 kg

Adaptor Application List by Vehicle Type

The part No. of the appropriate Adaptor is given in Column 3.

Make	Model or Type	Part-No.	No.
Büssing	General	KL-0124-619	19
DAF	HGV `92 and `95	KL-0124-618	18
	General	KL-0124-620	20
Fendt	General	KL-0124-619	19
	General	KL-0124-620	20
Iveco	General	KL-0124-619	19
	General	KL-0124-620	20
MAN, Krupp	General	KL-0124-610	10
	General	KL-0124-619	19
	General	KL-0124-626	26
	HGV F90-F2000	KL-0124-628	28
Mercedes	HGV	KL-0124-611	11
	Bus	KL-0124-616	16
	HGV, Unimog	KL-0124-619	19
	HGV, Bus	KL-0124-620	20
	HGV, Actros	KL-0124-628	28
Renault	HGV Midliner	KL-0124-639	39
	HGV Premium, HGV Magnum	KL-0124-640	40
Scania	General, 93, 113, 143	KL-0124-613	13
	General	KL-0124-614	14
	HGV Typ 94, 114,124, 144	KL-0124-617	17
	General	KL-0124-619	19
	General	KL-0124-620	20
	General	KL-0124-631	31
Volvo	HGV	KL-0124-613	13
	HGV FH 12	KL-0124-623	23
	HGV FH 12	KL-0124-635	35

Note: More sets for cars see page 6.1-01.

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KL-0121-22



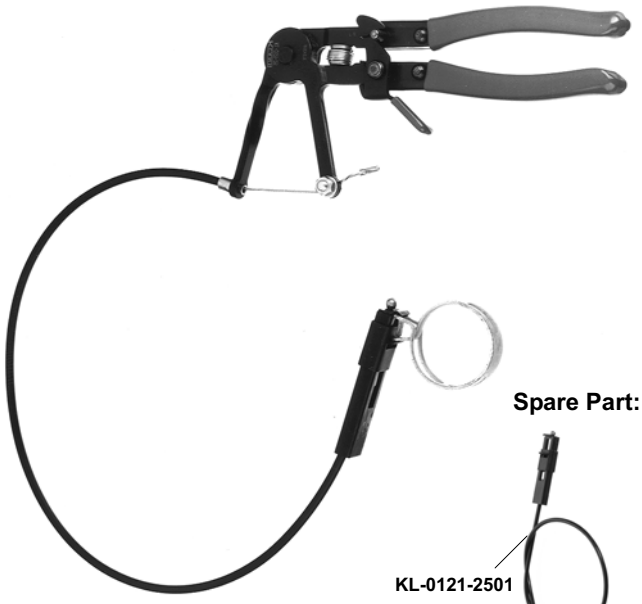
KL-0121-23



KL-0121-24



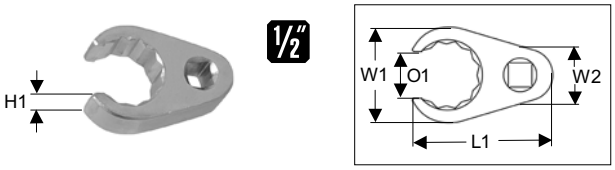
KL-0121-25



KL-4417-900



KL-4072-301 / KL-4072-302



KL-0121-22, KL-0121-23, KL-0121-24, KL-0121-25 Hose Clip Pliers with locking ratchet

For replacement of hose-clips on Fuel-lines, Oil-pipes and water-hoses, which are not retained by „Jubilee“ type clips, but re-usable, self-tensioning spring-clips. Special design allows the spring hose clips to be securely gripped and safely expanded.

Suitable for Alfa Romeo, Audi, Citroën, Fiat, Ford, Hyundai, Lancia, MAN, Mercedes, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Toyota, VW, Volvo, etc.

Following clips may be replaced with the Hose Clip Pliers: Norma, ABA (AWAB), MIKALOR, MUBEA from Ø 18 - 53 mm.

KL-0121-22 Hose Clip Pliers straight with ratchet

Clip -Ø: ..... 18 - 53 mm
Length:.....273 mm
Weight: .....390 g

KL-0121-23 Hose Clip Pliers 110° off-set tips with ratchet

Clip-Ø: ..... 18 - 53 mm
Length:.....285 mm
Clamp Angle: ..... 110°
Weight: .....425 g

KL-0121-24 Hose Clip Pliers 90° off-set tips with ratchet

Clip-Ø: ..... 18 - 53 mm
Length:.....225 mm
Clamp Angle: ..... 90°
Weight: .....403 g

KL-0121-25 Hose Clip Pliers with remote operation and ratchet

With remote operation and ratchet. Application as **KL-0121-22 - 24**, but with remote control especially for difficult to reach positions.

Clip -Ø: ..... 18 - 53 mm
Length:.....225 mm
Clamp Angle: ..... 90°
Weight: .....403 g

Spare Part: KL-0121-2501 Replacement Bowden Cable

Note: Further tools for the cooling system see chapter 6.1.

KL-4417-900 Crow Foot Spanner Set

Special Chrome Vanadium Steel. Matt chrome finish.

Specially designed to loosen and tighten nuts and bolts in confined spaces. Drive: ..... 3/8"☐

consists of:

Part No.	Description	Socket size	Width (W)	Length (L)	Weight (g)
KL-4417-16	Crow foot spanner	16	34 mm	40 mm	40 g
KL-4417-17	Crow foot spanner	17	35 mm	42 mm	50 g
KL-4417-18	Crow foot spanner	18	37 mm	45 mm	60 g
KL-4417-19	Crow foot spanner	19	41 mm	48 mm	70 g
KL-4417-21	Crow foot spanner	21	43 mm	51 mm	80 g

KL-4072-301 Open Ring Spanner Socket Set

Open 12-sided spanners are exceptionally compact and strong, so that even screws and nuts that are difficult to reach or turn can be loosened and tightened. Drive:..... 1/2" ☐

consists of:

Part-No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3017	17	60 mm	20 mm	31 mm	31 mm	12 mm	150
KL-4072-3018	18	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3019	19	63 mm	20 mm	34 mm	31 mm	14 mm	150
KL-4072-3022	22	65 mm	25 mm	39 mm	31 mm	16 mm	325
KL-4072-3024	24	70 mm	25 mm	44 mm	31 mm	18 mm	350

KL-4072-302 Open Ring Spanner Socket Set

As **KL-4072-301** but Drive:..... 1/2" ☐

consists of:

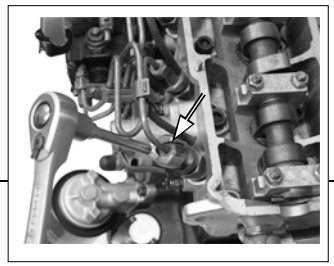
Part No.	Hex (mm)	Length [L1]	Height [H1]	Width 1 [W1]	Width 2 [W2]	Opening [O1]	Weight [g]
KL-4072-3027	27	74 mm	25 mm	48 mm	34 mm	20 mm	360
KL-4072-3030	30	76 mm	25 mm	50 mm	34 mm	24 mm	360
KL-4072-3032	32	80 mm	25 mm	52 mm	34 mm	25 mm	360

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KL-4072-321



½"



KL-4071-311

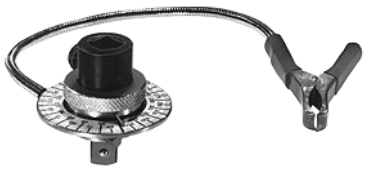


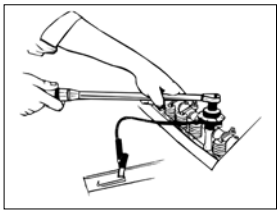


½" 3/8"

KL-4090-302

½"



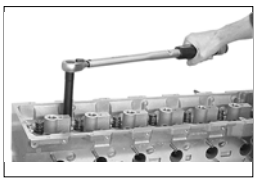


KL-4046-362



½"

BMW, Mercedes



KL-4041-4520

MAN



3/4"

KL-4046-3520

MAN



½"

KL-4072-321 Open ended ring wrench Socket Set

Specially designed to loosen and tighten nuts and bolts in confined spaces - e.g. Fuel Injector connections.

Technical Data:

Drive: ..... 1/2" ☐ Length:..... 120 mm

consists of:

Part-No.	Hex. (12-point)	Description
KL-4072-3214	14	Open ended ring wrench Socket
KL-4072-3216	16	Open ended ring wrench Socket
KL-4072-3217	17	Open ended ring wrench Socket
KL-4072-3218	18	Open ended ring wrench Socket
KL-4072-3219	19	Open ended ring wrench Socket

KL-4071-311 Open ended ring wrench Socket Set

As **KL-4072-321,** but as hex wrench and 80 mm long.

Technical Data:

Drive: ..... 1/2" ☐ Length:..... 70 mm

consists of:

Part No.	Hex. (6-point)	Drive 3/8“	Drive 1/2“	Description
KL-4071-3112	12	X		Open ended ring wrench Socket
KL-4071-3114	14	X		Open ended ring wrench Socket
KL-4071-3116	16		X	Open ended ring wrench Socket
KL-4071-3117	17	X		Open ended ring wrench Socket
KL-4071-3118	18		X	Open ended ring wrench Socket
KL-4071-3119	19		X	Open ended ring wrench Socket

KL-4090-302 Torque Angle Meter

For the Torque-to-Yield Fastener with angle degree information.

Ccommonly used for cylinder head bolts and other bolts where a torque angle is required.

Drive: ..... 1/2"☐ Weight:..... 340 g

KL-4046-362 Socket Set Torx® (4 Pcs.)

These Torx® Sockets in extended length with built-in magnet allow quick and easy removal and replacement of cylinder-head bolts with outer-Torx® profiles. **(e.g. BMW, Mercedes CDI engines, etc.)**

Drive ..... 1/2” ☐

Specification:

Part-No:	Torx®	Length [mm]	Weight (g)
KL-4046-3610	E10	150	200
KL-4046-3612	E12	150	225
KL-4046-3614	E14	150	250
KL-4046-3618	E18	150	415

® = reg. trademark of Camcar-Textron Inc. USA

KL-4041-4520 Torx® Socket
E20 strengthened version

For HGV Cylinder-head bolts. e.g. MAN

To remove and replace outer-Torx® E20 cylinder-head bolts.

Torx®: ..... E 20 Drive: ..... 3/4” ☐
Length:..... 105 mm

KL-4046-3520 Torx® Socket E20

For HGV Cylinder-head stud e.g. MAN

To remove and replace outer-Torx® E20 cylinder-head bolts. Thanks to its special design, it is especially suitable to screw up the cylinder head screws of built-in injector nozzles. Cylinder head screws can be checked and screwed up without spending time to remove and re-install the injector nozzles.

Torx®: ..... E 20 Drive: ..... 1/2”
Length:..... 130 mm

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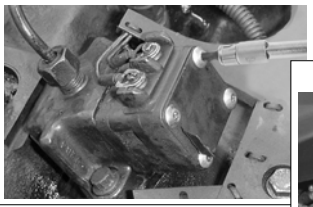
KL-4064-601 K

VW-Audi, Mercedes, Rover, MG

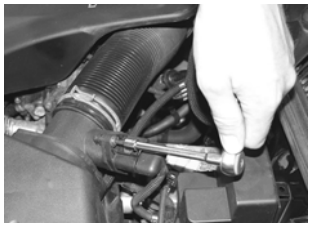


Five point

Pumps for pump-line-injector systems on Mercedes commercial vehicles.



VW-Audi airflow meters.



KL-4061-101

VW-Audi, Mercedes, Rover, MG



Five point

¼"

KL-0369-10

½"

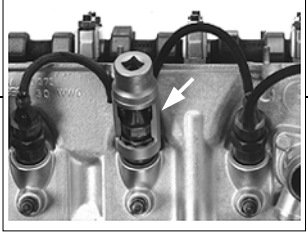


KL-0511-1

½"



BMW, Mercedes, VW, Alfa Romeo, Chrysler, etc.



KL-0511-2

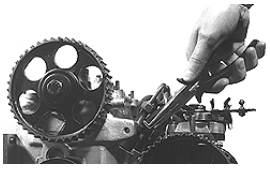
½"



KL-0192-21



Mercedes



KL-0192-23



KL-4064-601 K Socket Insert Set (Five point)

9 screwdriver inserts in plastic case.
For loosening and tightening the new 5 point tamper-proof bolts.

Suitable e.g. for:

- **Pumps in pump-line-injection systems on Mercedes commercial vehicles (e.g. Atego, Actros).**
- **Mercedes outside mirror.**
- **Mass Air Flow Sensor VW-Audi**
- **Immobiliser control unit (EWS3) on Rover 75 and MG ZT.**

consists of:

9x Bit Insert, ⬡, hex. 1/4" drive.
1x Bit Holder, ○ hex.1/4"; 1/4" drive (to insert the screwdriver bits).
1x Plastic case

Total weight: ..... 100 g
Size: ..... ⬡ 10, 15, 20, 25, 27, 30, 40, 45, 50
Drive (Insert): ..... ○ hex. 1/4"
Drive (Bit Holder): ..... □ 1/4"
Length (Insert): ..... 25 mm
Dimension (Plastic case) ..... 114x53x21 mm

KL-4061-101 Socket Insert Set (Five point), 1/4"

Application: As **KL-4064-601 K** but with the inserts:

Part No.	⬡ 5-Point	L1 [mm]	L2 [mm]	Weight [g]
KL-4061-1010	10	9	25	5
KL-4061-1015	15	9	25	5
KL-4061-1020	20	9	25	5
KL-4061-1025	25	9	25	5
KL-4061-1027	27	9	25	5
KL-4061-1030	30	9	25	5
KL-4061-1040	40	9	25	5
KL-4061-101 L	Storage Rail 1/4"			

KL-0369-10 Injector Socket (22 mm, hex)

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines. Drive: ..... ½"□

Application: VW-Audi, BMW, Ford, Opel/Vauxhall, Rover, Mercedes, Seat, Volvo, etc.

KL-0511-1 Injector Socket (27 mm, bihex)

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines. For removal and replacement of injectors on. Drive: ..... ½"□

Application: BMW (e.g. M21, M41, M51) as well as Ford, VW and Mercedes diesel engines.

KL-0511-2 Injector Socket (28 mm, bihex)

Application: Alfa Romeo; Chrysler; Rover; MAN 2,5 TD

Special cut-away deep socket to allow access to remove and replace injectors without damage to fuel-lines.

Drive: ..... 1/2" □ Size: ..... 28 mm

KL-0192-21 Safety Clip Pliers

For removal of the Fuel Return Line from injectors on Diesel engines.

Applicable on Mercedes diesel engines OM604, OM605, OM606 with 4-valve technology.

KL-0192-23 Safety Clip Pliers

For removal of returning hoses on injection nozzles of diesel engines. Especially applicable on **Mercedes OM601, OM602, OM603 and VW-Audi** vehicles, where the injection nozzles are located very deep in the cylinder head.

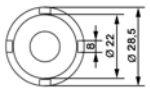
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KL-0369-6



½"

Mercedes



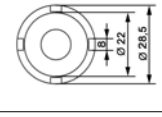
KL-0369-601



KL-0369-602

MAN, Neoplan, Setra

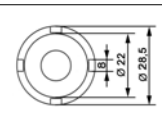




KL-0369-603

MAN, Mercedes

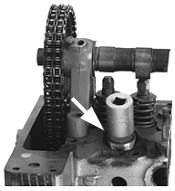




KL-0057-1



Mercedes



KL-0369-3



KL-0049-25

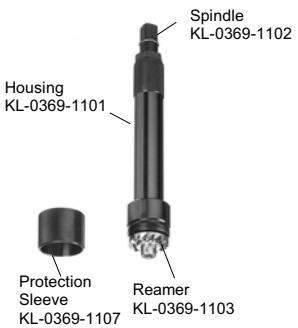




Mercedes



KL-0369-11



½"

Mercedes



KL-0369-6 Toothed Socket

For removal and replacement of the pressure nut and injector holder on **Mercedes trucks** fitted with engines OM401/421, OM403/423, LA, A, OM470.

Drive ..... 1/2" □ Length: ..... 70 mm

KL-0369-601 Toothed Socket with hex counter nut

For screwing on and off or retightening the pressure nut at the nozzle holder of **Mercedes truck** engines.
Tightening the hexagon counter nut (with the M14x1.5 mm receiver thread) on the injection nozzle prevents the pin wrench from sliding off.

Drive: ... Hex 32 mm (hex counter nut 22 mm) Length: ..... 70 mm

® = reg. trademark of Camcar-Textron Inc. USA

KL-0369-602 Toothed Socket

For screwing on and off or retightening the pressure nut at the nozzle holder of **Mercedes truck** engines.
It is turned out inside so the plug sensor cable and plug can be threaded through.

Applicable for MAN, NEOPLAN, SETRA etc.

Drive: ..... Hex 32 mm Length: ..... 60 mm

KL-0369-603 Toothed Socket

As **KL-0369-602**, but **suitable for MAN, Mercedes etc.**

Drive ..... Hex. 32 mm Length: ..... 120 mm

KL-0057-1 Spline Nut

For removal of the locking ring on the pre-combustion chamber on **Mercedes engines OM615, OM616 and OM617**.

Drive: ..... ½"□

KL-0369-3 Spline Nut

For removal of the locking ring on the pre-combustion chamber on **Mercedes engines OM601, OM602, OM603 OM604, OM605 and OM606.**

Drive: ..... ½"□

KL-0049-25 Slide Hammer

To remove the pre-combustion chamber on **Mercedes engines OM615, OM616, OM617, OM601, OM602, OM603 OM604, OM605 and OM606.**

KL-0049-25 consists of the slide hammer (without adaptor) **KL-0049-200**, the adaptor (M14 on M12) **KL-0049-2008** and the puller bolt for pre-chamber MB (inner thread M12, outer thread M22×1 and M22×1,5) **KL-0369-4.**

KL-0369-11 Milling Cutter

The **KL-0369-11** milling tool should always be used to re-machine the pre-combustion chamber sealing face before the injector nozzle body is re-installed.

Mercedes diesel engines OM601, OM602, OM603, OM604, OM605 and OM606

The Milling Cutter KL-0369-11 consists of:

Part No.	Description	Part No.	Description
KL-0369-1101	Housing	KL-0369-1105	Washer
KL-0369-1102	Spindle (Drive 1/2"■)	KL-0369-1106	Circlip
KL-0369-1103	Reamer Ø33 mm	KL-0369-1107	Protection Sleeve
KL-0369-1104	Screw M8 × 20		

Note: Service of the injector housing seat is essential as soon as damaged or leaking. If the injector housing seat has not been treated before, this may be done with the cylinder head removed or still in place. If the injector housing seat is treated a second time (noticeable by the marks on the cylinder head close to the injector housing or on the spacer rings), the cylinder head has to be removed, because the clearance of the injector housing (7,6-8,1 mm) can only be correctly measured with removed cylinder head. The clearance guarantees enough distance between piston surface and injector housing in TDC position.

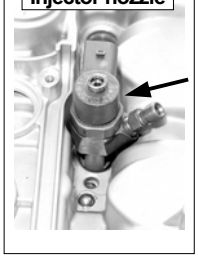
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KL-0369-45 K

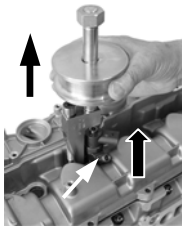
Mercedes CDI
OM 611, 612, 613



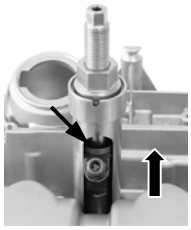
Injector nozzle



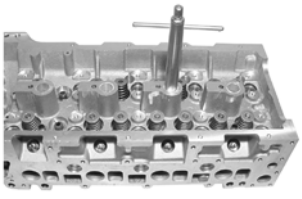
KL-0369-41



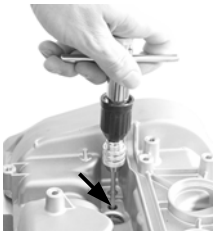
KL-0369-45



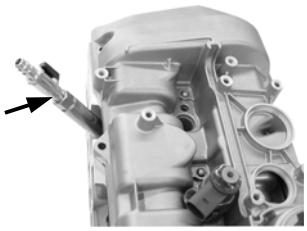
KL-0369-20 A



KL-0369-51



KL-0369-55



KL-0369-45 K Injector Nozzle Tool Set

Mercedes CDI engines
(German Utility Model)

Suitable for Mercedes CDI engines OM 611, 612, 613, etc.

The **KL-0369-45 K** injector nozzle Tool set (comprising nozzle puller **KL-0369-41**, nozzle puller **KL-0369-45**, milling cutter **KL-0369-20 A**, compressed air adapter **KL-0369-55**, thread tap **KL-0369-51** and plastic case **KL-0369-4590**) makes it possible to remove the injector nozzles correctly.

Nozzle puller **KL-0369-41** with impact weight is suitable for removing injector nozzles that are not too tight a fit, without dismantling them. Nozzle puller **KL-0369-45** with puller spindle is needed to remove nozzles that are a very tight fit. In both cases the cylinder head does not have to be removed. Milling cutter **KL-0369-20 A** is used to clean up the injector nozzle mounting bore, the nozzle seat and the small passage leading to the combustion chamber in a single operation.

If compressed air adapter **KL-0369-55** is screwed into the flame-start plug bore and air injected into the combustion chamber, this will prevent dirt or metal particles from entering the combustion chamber.

Thread tap **KL-0369-51** with drill tip is suitable for recutting and cleaning the thread for the nozzle holder. It is important to carry out this work before installing the injector nozzle again.

Part-No.	Description	Qty.
KL-0369-45 K	**Injector nozzle tool set**	**1**
consists of:		
KL-0369-41	Injector nozzle puller with slide hammer	1
KL-0369-45	Injector nozzle puller with spindle	1
KL-0369-20 A	Milling Tool for mounting hole and injector nozzle seat	1
KL-0369-55	Compressed air adapter for glow plug bore	1
KL-0369-51	Thread tap with drill-bit tip	1
KL-0369-4590	Plastic case	1

Note: Mercedes A-class CDI (OM668)

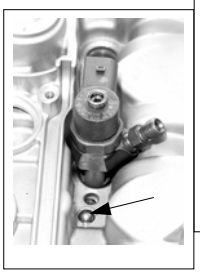
On OM 668 CDI engines, two injector nozzles are always held by a single retaining clip, so that if an injector nozzle has to be removed, the second nozzle must be pulled out in parallel with it.

For this work, the **KL-0369-46 K** injector nozzle puller, which is a new development, is needed. (see page 6.3-21)

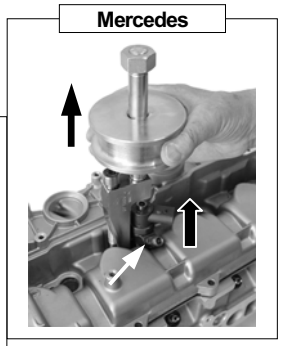
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KL-0369-41





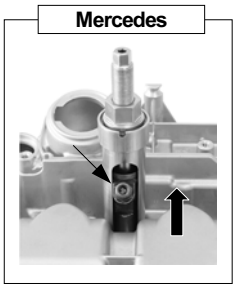
Mercedes



KL-0369-45



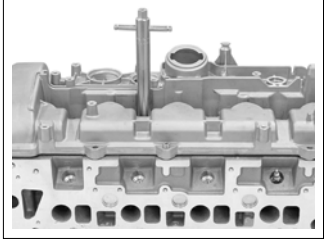
Mercedes



KL-0369-20 A



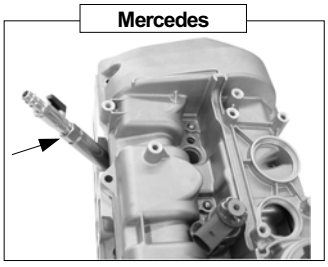
Mercedes, Smart



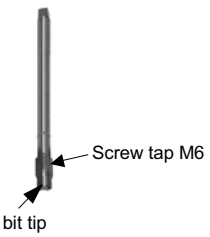
KL-0369-55



Mercedes



KL-0369-51



Mercedes



KL-0369-41 Injector nozzle puller
with slide hammer (German Utility Model)

Applicable for Mercedes CDI engines OM 611, 612, 613, etc.

With the **KL-0369-41** injection nozzle puller with impact weight, injection nozzles that do not fit very tightly can be pulled out without needing to take them apart or remove the cylinder block.

Thanks to its special design, the puller is additionally supported by the steel ball on the valve cover, which prevents the puller from tipping during the removal process.

Specification:

Injector nozzle puller with slide hammer, pull rod M18,
Slide hammer 1,5 kg, Screw M18.

Entire Length:..... 250 mm

Accessories: KL-0049-31 Slide Hammer (Slide weight 4,8 kg)

KL-0369-45 Injector nozzle puller
with spindle (German Utility Model)

Applicable for Mercedes CDI engines OM 611, 612, 613, etc.

With the **KL-0369-45** injection nozzle puller with spindle, injection nozzles that fit *very tightly* can be pulled out without needing to remove the cylinder block.

⇒ **Procedure**: screw off the nozzle head, screw in the puller spindle, insert the support ring, push the support sleeve over the spindle and screw on the collar nut then pull out the nozzle by turning the collar nut.

Specification: Support sleeve, pull spindle, shoulder nut M16x1,5, Support ring, Special bit insert 10 mm hex, axial bearing, circlip SB35, Special socket insert 29 mm hex.

Entire Length:..... 150 mm

KL-0369-20 A Milling tool for mounting hole and injector nozzle seat

Applicable for Mercedes CDI engines OM611, 612, 613 and Smart R660.

In a single machining operation, the specially shaped milling cutter produces a clean finish on the injector mounting hole, the nozzle seat and the small aperture leading to the combustion chamber.

Important before assembly to prevent the risk of leaks between the cylinder head and the injector.

Drive: .....13 mm hex
Length:..... 235 mm

KL-0369-55 Compressed air adaptor
for glow plug bore

Suitable e.g. for Mercedes CDI engines OM 611, 612, 613, etc.

If compressed air adapter **KL-0369-55** is screwed into the flame-start plug bore and air injected into the combustion chamber, this will prevent dirt or metal particles from entering the combustion chamber.

KL-0369-51 Thread tap with drill-bit tip

Applicable e.g. for Mercedes CDI engines OM 611, 612, 613, etc.

For recutting and cleaning the tapped hole to retain the injector nozzle holder. Important: this tool must be used before re-installing the injector nozzle.

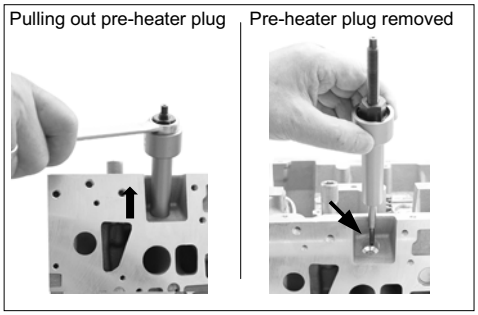
Length:..... 100 mm
Thread: M6

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KL-0369-201 A

Mercedes



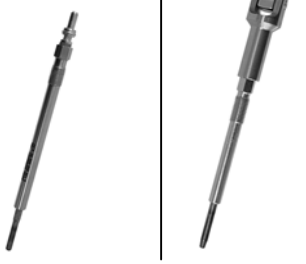


KL-0369-91

Mercedes CDI, Opel CDTI, Fiat/Lancia JTD



Glow Plug



KL-0369-92



Opel CDTI, Fiat JTD

KL-0369-9



KL-0369-14



KL-0369-7



KL-0369-12



KL-0369-201 A Glow plug puller

For glow plugs with 10 mm across flats on Mercedes CDI engines (OM 611, 612, 613 etc.)

For pulling out glow plugs after they have been unscrewed but are still located firmly in their holes.

Length:.....135 mm Drive:..... 19 mm hex

KL-0369-91 Jointed Glow Plug Socket 8 mm

With built-in O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex.:.....8 mm Drive:..... 3/8"☐
Length:.....75 mm

Suitable for:

- **Mercedes CDI engines OM 640 and OM 642 e.g. A-class (2004 onwards) [W169], B-class [W245] etc.**
- **Opel 1,3 L CDTI engines e.g. Agila, Corsa C etc.**
- **Fiat 1,3 L JTD engines e.g. Doblo, Idea, Punto etc.**
- **Lancia 1,3 L JTD e.g. Ypsilon etc.**

KL-0369-92 Jointed Glow Plug Socket 9 mm

With built-in O-ring.

Hex.:.....9 mm Drive:..... 3/8"☐
Length:.....75 mm

Suitable for:

- **Opel 1,9 L CDTI engines e.g. Astra H, Signum, Vectra C etc.**
- **Fiat 1,9 L JTD 1,6V engines e.g. Stilo etc.**

KL-0369-9 Jointed Glow Plug Socket 10 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex:.....10 mm Drive:..... 3/8"☐
Length:.....65 mm

KL-0369-14 Jointed Socket Glow Plugs 10 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.
Application: **Mercedes CDI-Engines (OM611, 612, 613)**.

Hex:.....10 mm Drive:..... 3/8"☐
Length:.....70 mm

KL-0369-7 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

Hex:.....12 mm Drive:..... 3/8"☐
Length:.....65 mm

KL-0369-12 Jointed Glow Plug Socket 12 mm

With built-in retaining spring or O-ring.
Designed especially for easy removal and replacement of glow plugs.

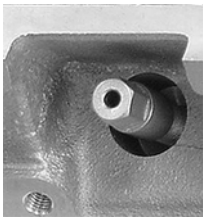
Hex:.....12 mm Drive:..... 3/8"☐
Length:.....70 mm

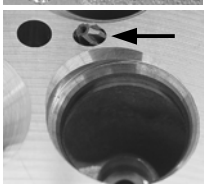
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KL-0369-15



Mercedes



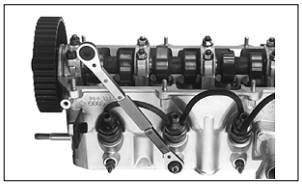


KL-0369-13



KL-0283-4 (8 / 12 mm)





KL-0127-2206

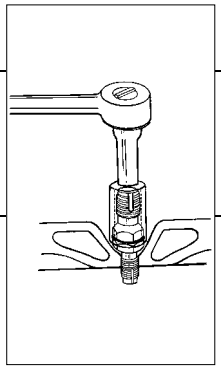


KL-0132-3



KL-0127-2207

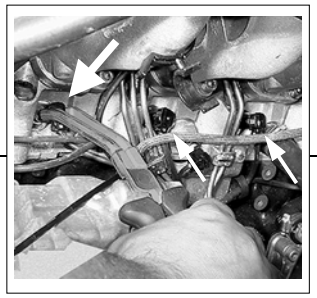




KL-0369-18



VW-Audi, BMW, Mercedes



KL-0369-19



VW-Audi, BMW, Mercedes

KL-0369-15 Reamer for Glow Plug

To ream out and clean the bore between the Glow Plug and combustion chambers.
⇒ Important if the engine is difficult to start.

Application: Mercedes CDI - Engines 4, 5 & 6 cylinder OM611, 612, 613, with Glow Plug threads M10x1.

Drive: ..... 10 mm hex
Glow Plug: ..... 6 mm

KL-0369-13 Reamer for Glow Plug

To ream out and clean the bore between the Glow Plug and pre-combustion chamber.

Application: Mercedes 4-Valve-engines OM604, OM605, OM606 with glow plug threads size M12x1,25.

Drive: ..... 13 mm hex
Glow Plug: ..... 7 mm

KL-0283-4 Glow Plug Spanner

Double-ended ratchet ring spanner 8 mm and 12 mm for removal and replacement glow plugs.

Universal use, especially for awkward to reach glow plugs.
(e.g. VW-Audi, BMW, Mercedes, Peugeot, Renault, etc.)

KL-0127-2206 Last Tap

For cleaning of plug threads size M10×1,0 and M12×1,25.

KL-0132-3 Last Tap

For cleaning of plug threads size M12×1,25 and M14×1,25.

KL-0127-2207 Last Tap

For cleaning of spark plug threads size M14×1,25 and M18×1,5.

KL-0369-18 Glow-Plug Connector Pliers
straight

To remove stubborn and hardly accessible glow plug connectors installed on the latest generation engines.

e.g. Mercedes, BWM, VW-Audi etc.

KL-0369-19 Glow-Plug Connector Pliers
angled

As **KL-0369-18** (Version angled at 90°)

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KL-0369-30 K

Mercedes

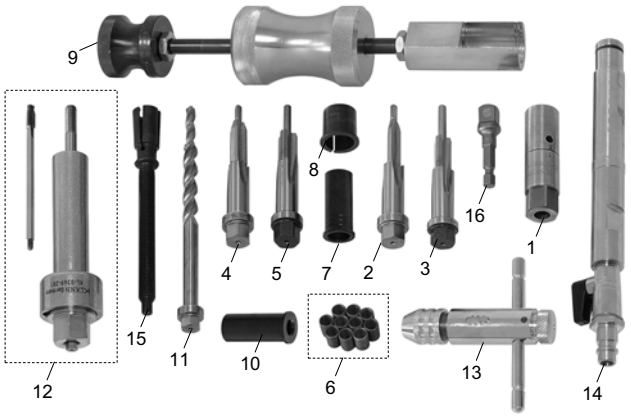


Glow plug



„Removing the glow plug and repairing the glow plug retaining thread“

Specification:



KL-0369-31 K

Mercedes

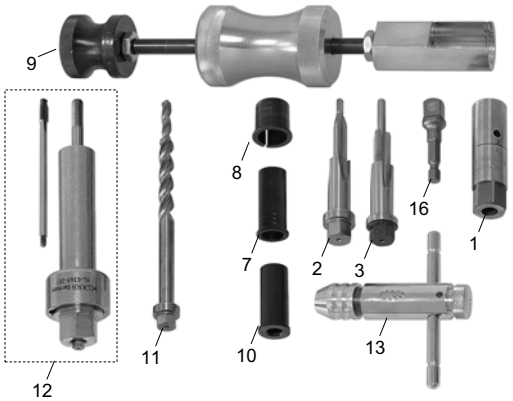


Glow plug



„Removing the glow plug “

Specification:



Note: Accessory kits to remove Peugeot, Citroën glow plugs, see page 6.3-19.

KL-0369-30 K Glow Plug Tool Set

for Mercedes CDI engines

(German Utility Model)

Suitable for Mercedes CDI engines OM 611, 612 and 613.

The glow plug tool set **KL-0369-30 K** enables the correct removal of *burnt and/or stuck due to corrosion or torn off glow plugs* as well as the repair of the glow plug retaining thread.

The cylinder head does not have to be removed.

Note: Screwing the compressed air adapter into the injector nozzle bore and injecting compressed air into the combustion chamber prevents dirt and metal particles from entering the conbustion chamber

Advantage:

- Large time saving and cost saving
- Clean working methods.
- The tool is easy to operate.

Weight: ..... 3,9 kg

Specification:

Pos.	Part No.	Description	Qty.
	KL-0369-30 K	**Glow Plug Tool Set**	**1**
	consists of:		
1	KL-0369-300	Drum-type turning tool for Ø 2.5 - 4.5 mm	1
2	KL-0369-3011	Core drill Ø 9.1 for M10x1 thread	1
3	KL-0369-3012	Thread tap M10x1	1
4	KL-0369-3021	Core drill Ø 11.1 for M12x1 thread	1
5	KL-0369-3022	Thread tap M12x1	1
6	KL-0369-3023	Set of threaded sleeves M10x1, 17 mm long	1
7	KL-0369-3013	Drill guide bushing	1
8	KL-0369-3014	Centring sleeve	1
9	KL-0369-303	Centring sleeve fitting/removing tool	1
10	KL-0369-3041	Reamer guide bushing (KL-0369-3042)	1
11	KL-0369-3042	Reamer	1
12	KL-0369-305	Glow plug tube extractor	1
13	KL-0369-306	Tool holder with square socket 2.4 - 5.5	1
14	KL-0369-56	Compressed air adapter for CDI injector nozzle bore	1
15	KL-0369-2013	Clamping pliers for preheat plug removal	1
16	KL-4007-2510	Adapter for power drill 3/8" square socket	1
	KL-0369-3090	Plastic case	1

KL-0369-31 Glow Plug Tool Set

for Mercedes CDI engines

(German Utility Model)

As KL-0369-30 K
however, it does **not** enable to repair the damaged glow plug retaining thread.

Suitable for Mercedes CDI engines OM 611, 612 and 613.

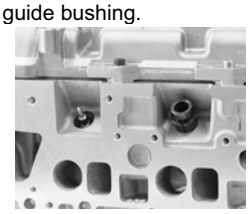
Weight ..... 3,3 kg

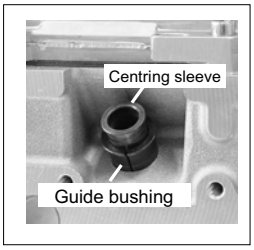
Specification:

Pos.	Part No.	Description	Qty.
	KL-0369-31 K	**Glow Plug Tool Set**	**1**
	consists of:		
1	KL-0369-300	Drum-type turning tool for Ø 2.5 - 4.5 mm	1
2	KL-0369-3011	Core drill Ø 9.1 for M10x1 thread	1
3	KL-0369-3012	Thread tap M10x1	1
7	KL-0369-3013	Drill guide bushing	1
8	KL-0369-3014	Centring sleeve	1
9	KL-0369-303	Centring sleeve fitting/removing tool	1
10	KL-0369-3041	Reamer guide bushing (KL-0369-3042)	1
11	KL-0369-3042	Reamer	1
12	KL-0369-305	Glow plug tube extractor	1
13	KL-0369-306	Tool holder with square socket 2.4 - 5.5	1
16	KL-4007-2510	Adapter for power drill 3/8" square socket	1
	KL-0369-3090	Plastic case	1

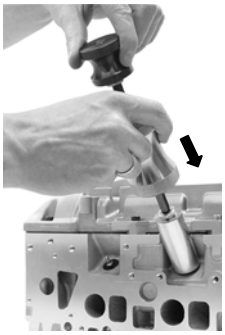
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Insert the centring sleeve with guide bushing.

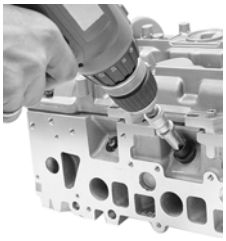




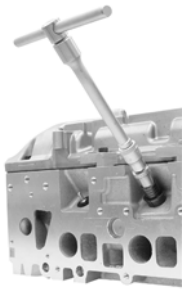
Locate centring sleeve and guide bushing firmly with the striker tool



Drill the glow plug head out to core hole diameter.



Tap the thread M10x1



Tap the thread in the preheat plug tube.



Pull out the preheat plug tube with the puller.

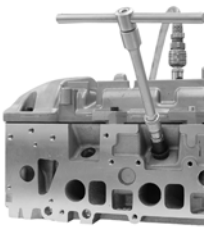


Clean the glow plug mounting bore and sealing seat.

“A“



“B“



Screw threaded sleeve on to glow plug.



Glow plug with the threaded sleeve



Install preheat plug with threaded sleeve.



Application KL-0369-30 K

The correct removal of burnt, corroded or broken-off glow plugs, and repairs to the preheat plug retaining thread without removing the cylinder head, still create almost insoluble problems for the mechanic.

The **KL-0369-30 K** glow plug tool set is used for precision removal or drilling out of damaged glow plugs to recut the original M10 x 1 thread or to repair a damaged M10 x 1 thread in the mounting bore for the glow plug by drilling it out to M12 x 1. The new glow plug is then inserted into the cylinder head with the aid of a threaded bushing (M12x1 to M10x1).

The puller in the tool set can be used to pull out the glow plug or the glow plug pin if it is a tight fit in the port.

Inserting the special guide and drilling sleeves at the glow plug bore in the cylinder head ensures accurate guiding and prevents damage to the cylinder head when the glow plug is being drilled out with the special drill bit, and when cleaning or renewing the glow plug thread. The compressed air adapter can be screwed into the injector nozzle bore and air injected into the combustion chamber (piston in cylinder being repaired must be at top dead centre on the working stroke, with the valves closed). This prevents dirt or metal particles from entering the combustion chamber. Before installing a new glow plug, clean the glow port and the seat for the seal with the three-stage reamer (supplied with the tool set), to remove carbonised oil deposits etc.

The cylinder head does not have to be removed.

Procedure KL-0369-30 K

⇒ ***Pulling the glow plug out*** *(if it can be unscrewed but is still a tight fit in the bore).*

⇒ ***Drilling out the glow plug thread to core-hole diameter and recutting the original M10x1 thread.***

A. Remove the centre electrode with the drum-type cutter.
B. Insert the centring sleeve with guide bushing.
C. Drill the glow plug head out to core-hole diameter.
D. Recut the M10x1 thread.
E. Cut the thread in the glow plug shaft.
F. Install the compressed air adapter.
G. Open the compressed air feed.
H. Pull the glow plug body out with the puller.
I. Clean the glow plug mounting bore and sealing seat with the reamer.

⇒ ***Renewing glow plug mounting thread in cylinder head (M10x1 to M12x1).***

A: Insert centring sleeve with guide bushing.
B: Drill out the damaged M10x1 thread.
C: Cut the new M12x1 thread.
D: Insert the glow plug with the threaded sleeve screwed on.

Note: Screwing the compressed air adapter into the injector nozzle bore and injecting compressed air into the combustion chamber prevents dirt and metal particles from entering the conbustion chamber.

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KL-0282-31



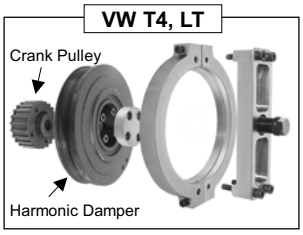


KL-0282-35

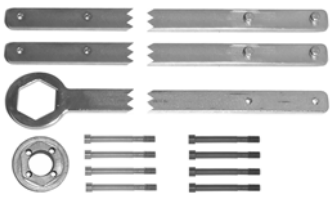


KL-0282-51





KL-0284-61

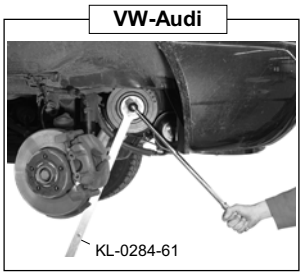




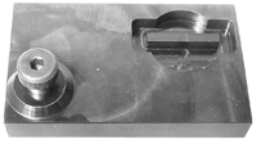
KL-0284-62

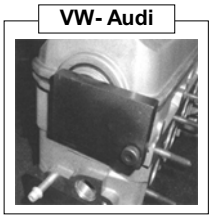






KL-0280-94





KL-0282-31 Reaction Wrench
(420 mm long, adjustable)

With inter-changeable tips and several hole intervals.
Suitable for all timing pulleys with holes from minimum Ø 12 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.
A selection of tip-Ø and hole intervals are available to make the wrench almost universal in its range of application.

Technical Data:

Tip distance:.... from 45 mm to 75 mm	Tip-Ø: .....12 mm and 16 mm
Tip length: .....34 mm	Overall tool length:...420 mm

KL-0282-35 Reaction Wrench
(420 mm long, adjustable)

Suitable for all timing pulleys with holes from minimum Ø 14 mm. e.g. VW-Audi, Ford, Opel, Peugeot, Renault, Citroën, Rover, Volvo, Japanese vehicles, etc.

To prevent the Pulley on Camshafts, Injection pumps, etc. from rotating when loosening the central fastening bolt. etc.
The adjustable lever allows to adjust the hole distance and makes the reaction wrench almost universal in its range of application.

Technical Data:

Tip distance:.. from 14 mm to 130 mm	Tip-Ø: .....14 mm
Tip length: .....31 mm	Overall tool length:...410 mm

KL-0282-51 Puller for Harmonic Damper
(German Utility Model)

For VW 5 cylinder engines with poly-V-belt e.g. T4, LT etc.

Removes the harmonic damper while simultaneously reacting against the crankshaft pulley. The **KL-0282-51** Puller is absolutely necessary if the shoulder of the Pulley has corroded onto the harmonic damper.

Advantages:
- No damage to the harmonic damper.
- High time-savings.

KL-0284-61 Reaction Wrench for Crankshaft Pulley (German Utility Model)

For VW-Audi 4 and 5 cylinder engines with and without harmonic damper.

To provide a reaction onto the crankshaft front pulley so that the central pulley bolt may be lossened or tightened.
Required for timing belt changes, oil-seal replacement and during engine repairs.

Advantage:
- By using the 2 extension handles, the loosening and tightening of the central crankshaft pulley bolt can be undertaken by a single mechanic.

Consists of: Adaptor, cylinder bolts (4 x), Special cylinder bolts (x 4), Special Ring Spanner 60 mm, Extension handles (x 2)

Length $_{overall.}$ (incl. 2 extensions):.....1800 mm

KL-0284-62 Socket hex 27 mm

Suitable for VW-Audi, Seat, Škoda 4 and 5 cylinder engines, that have a 27mm hex bolt on the crankshaft to secure the belt pulley, vibration damper, etc.

To loosen or tighten the central crankshaft bolt. To be used with the **KL-0284-61** reaction wrench. Required when removing or installing toothed belts and their pulleys, crankshaft sealing rings, belt pulleys or vibration dampers or during engine repairs.

Hex: .....27 mm	Length: .....100 mm
Drive: ..... 1/2" ☐	Weight: .....350 g

KL-0280-94 Fixing Gauge for Camshaft

Suitable for VW/Audi 5 cylinder TDI engine e.g. LT, T4

The Setting Tools allows retention of camshaft position without the need to remove the cam-cover - so eliminating risk of damage to vulcanised gasket.
Necessary while renewing Timing Belts or during engine repairs.

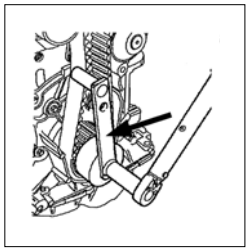
Weight: .....680 g

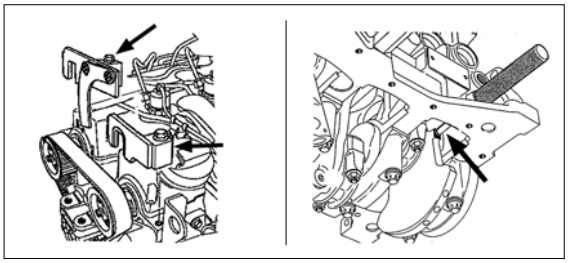
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KL-1280-24 K



Opel, Renault, Nissan

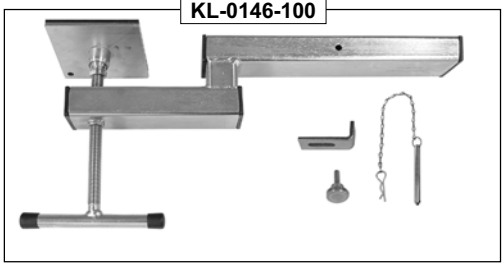




KL-0146-... Series

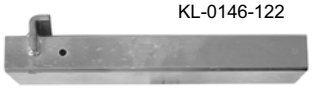
Base Tool:

KL-0146-100

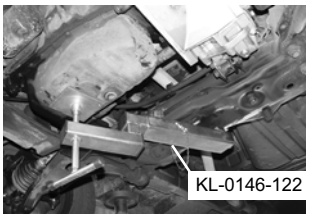


Adaptor:

KL-0146-122



Fiat Ducato, Citroën Jumper, Peugeot Boxer



KL-0175-90



KL-1280-24 K Locking Tool Set

Renault 1.5 / 1.9 / 2.2 / 2.5 dCi

Applicable for Renault, Opel and Nissan 1,5; 1,9; 2,2 and 2,5 L direct injection diesel engines (K9K, F9Q, G9T and G9U) e.g. Renault Clio, Megane, Scenic, Laguna, Espace, Kangoo, Trafic and Master. Nissan Micra, Kubistar, Primastar, Interstar. Opel Vivaro and Movano.

To prevent the engine shafts (camshaft, crankshaft) from turning or to keep them in a specific position and to adjust the timing belt tensioner when changing a timing belt or during other engine repairs.

Contents:

Part No.	Description	Qty.
KL-1280-24 K	**Locking Tool Set Renault 1.5/1.9/2.2/2.5 dCi**	**1**
consists of:		
KL-1280-234	Locking pin for crankshaft Ø 7,9	1
KL-1280-233	Locking pin Ø 7,9	1
KL-1280-240	Timing belt tensioner tool	1
KL-1280-241	Hex. Screw M6 x 60	1
KL-1280-242	Locking tool for camshaft	1
KL-1280-243	Locking tool for crankshaft	1
KL-1280-2490	Plastic case	1

KL-0146-... Series Supporting Device

To support the engine when the side engine bracket is removed. It is required when replacing e.g. timing belts, water pumps or engine brackets.

Due to the support given to the engine by the supporting device **KL-0146-… Series** it is possible to work at the engine control (belt drive) without using engine cranes or transmission lifts.

The supporting device consists of the base tool **KL-0146-100** and of an adaptor different for each kind of vehicle, e.g. **KL-0146-122.**

By changing the adaptor the field of application of the supporting device is almost universal. For further adaptors see page 6.4-02.

Advantages

- High time saving
  ⇒ Motor cranes, gear lifters, etc. are not required.
- High cost saving
  ⇒ Easy and fast installation of the supporting device.
  ⇒ Only one mechanic is needed.
- Universally applicable
  ⇒ Due to the individually exchangeable adaptor.

Fiat Ducato supporting device:

KL-0146-100 Base Tool + KL-0146-122 Adaptor (Fiat Ducato)

KL-0175-90 Cylinder liner puller

with support brace

Wet heavy-vehicle (e.g. Daimler Benz, MAN) cylinder liners, automobile and stationary-engine liners, and other parts may be extracted using this puller.

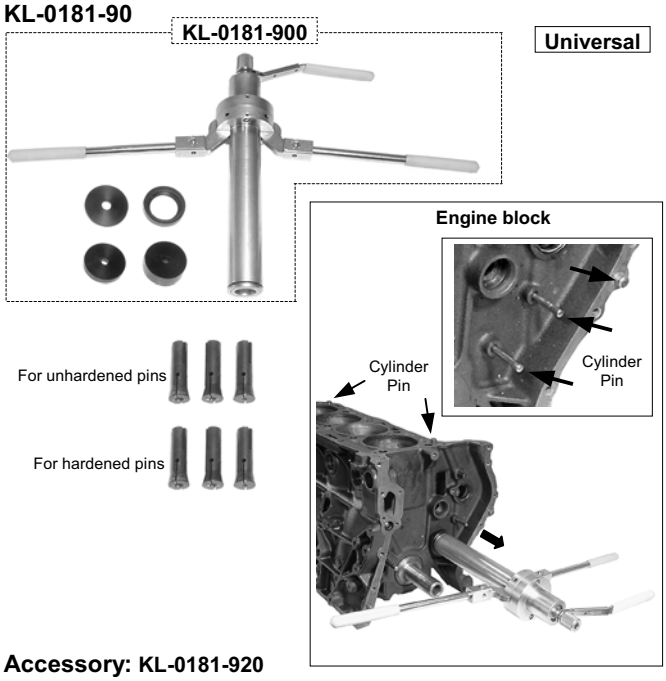
Operation: The spindle of the support brace is screwed into the clamping nut of the puller, and the puller inserted into the liner. The support brace is placed on to the cylinder block. Due to the newly-developed spreading system, when the spindle is turned, all three jaws spread quickly and without difficulty, until they are firmly seated beneath the edge of the liner. Then the nut of the support brace is tightened.

Suitable for Cylinder liners with Ø 60 - 160 mm

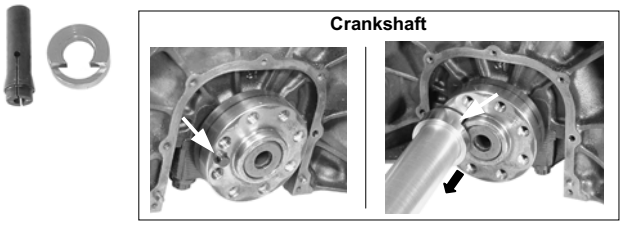
Weight: ..... 6,8 kg

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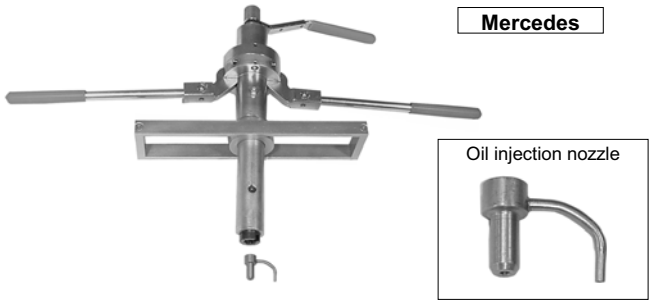
KL-0181-90



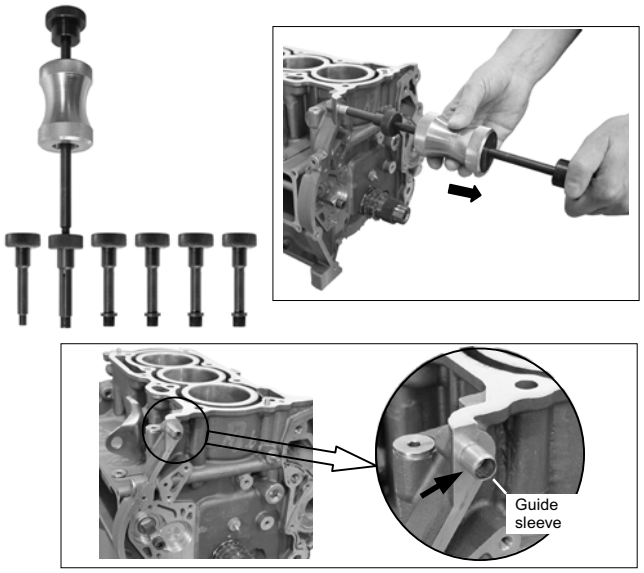
Accessory: KL-0181-920



KL-0181-93



KL-0181-80



KL-0181-90 Puller for Cylinder Pin

(German Utility Model)

Removing pins from engine blocks (Aluminium or Steel), Crankshafts, Flywheels, etc. is a real problem for the Mechanic, and even impossible if the pin is hardened. The newly-developed KLANN Puller **KL-0181-90** is the solution to this well-known problem.

By using the appropriate Chuck both hardened and unhardened pins can be removed within a few seconds.

consists of:

Part No:	Description:
KL-0181-900	Puller for Cylinder Pin Basic Tool (with distance plates)
KL-0181-9006	Chuck Ø6 mm for unhardened pins
KL-0181-9008	Chuck Ø8 mm for unhardened pins
KL-0181-9010	Chuck Ø10 mm for unhardened pins
KL-0181-9106	Chuck Ø6 mm for hardened pins
KL-0181-9108	Chuck Ø8 mm for hardened pins
KL-0181-9110	Chuck Ø10 mm for hardened pins

Accessory:

KL-0181-920 Extension Set for Crankshaft Pins

consists of:

Part No:	Description:
KL-0181-9201	Support Ring
KL-0181-9208	Chuck Ø8 mm for unhardened pins

Supplementary Accessories:

KL-0181-9202 Support ring 14 mm
KL-0181-9203 Support ring 18 mm
KL-0181-9204 Chuck Ø4 for unhardened pins (6 mm enlarged)
KL-0181-9209 Chuck Ø9 for unhardened pins (5 mm enlarged)
KL-0181-9214 Chuck Ø14 for oil injection nozzles MB

KL-4990-1017 Plastic case (not Ill.)
Measurement: Outer 450x365x106 mm (WxHxD)
Inner 437x295x100 mm (WxHxD)

KL-0181-93 Puller for oil injection nozzles

with support frame

(German Utility Model)

To be used in the same way as the **KL-0181-90** but with a support frame for pulling the oil injection nozzle out of the engine housing.

Mercedes CDI engines OM 611, 612, 613.

KL-0181-80 Guide sleeve puller

(German Utility Model)

Guide sleeves can be pulled out and knocked in without incurring any damage. The puller works on the principle of an internal collet chuck.

In engine and gearbox engineering, so-called guide sleeves are used for accurate fixing of the housing halves. These guide sleeves should therefore not be installed or removed with tongs or a hammer.

consists of:

Part-No.	Description
KL-0181-800	Slide hammer
KL-0181-8005	Internal collet chuck Ø 5 mm
KL-0181-8006	Internal collet chuck Ø 6 mm
KL-0181-8007	Internal collet chuck Ø 7 mm
KL-0181-8008	Internal collet chuck Ø 8 mm
KL-0181-8009	Internal collet chuck Ø 9 mm
KL-0181-8010	Internal collet chuck Ø 10 mm

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KL-0363-2



MAN
Mercedes

KL-0363-2 Flywheel Rotating Tool

This tool allows precise positioning of the crankshaft for timing purposes or any other word requiring exact rotating of the crankshaft.

Application:

Mercedes HGV with 6-, 8- and 10-Cylinder engines,
MAN HGV with 12-Cylinder engines.

Drive:..... 1/2"☐

KL-0363-3



MAN
Mercedes

KL-0363-3 Flywheel Rotating Tool

As **KL-0363-2**, but for

Mercedes Actos engines,
MAN HGV with 5-, 6- and 8-Cylinder engines.

KL-0362-7





Mercedes
Actros

½"

KL-0362-7 Special Socket hex 27 mm

To remove and install the sensor for the oil level indicator on **Mercedes Actros**. Slot width: 8 mm for the sensor cable.

Length: ..... 100 mm
Weight: ..... 450 g

Drive:.....½"☐

KL-0122-911





MAN
Mercedes

½"

KL-0122-911 8 point Special Socket hex 27 mm

To remove and install the oil pressure switch.

Applicable for MAN, Mercedes etc.

Length: ..... 70 mm
Hex: ..... 27 mm

Drive:.....½"☐

KL-0122-51



Mercedes

½"



KL-0122-51 Oil Filter Key 32 mm

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Applicable for Mercedes HGV e.g. OM 364, OM 366 engines and Opel/Vauxhall e.g. X10XE, X12XE, Y17DT, Y17DTL engines.

Drive:..... ½"☐ Hex:..... 32 mm

KL-0122-12





KL-0122-12 Oil Filter Key

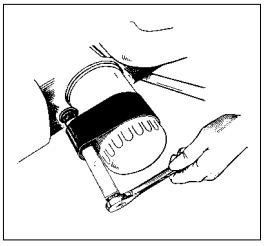
The large range enables this wrench to fit most standard size filters. Steel jaws grip filter without slipping. Works great in tight spots since it works from the top of the filter.

For Oil Filters with Ø 60-125 mm (diesel engines).

Drive:..... 3/8"☐

KL-0122-40





KL-0122-40 Oil Filter Belt up to Ø 152 mm

For Filter up to 152 mm.

Adjusts quickly to fit any spin-on filter up to 6“ diameter. Use with ½“ drive or ¾“ wrench. Strong nylon belt.

Drive:..... ½" ☐ Weight:..... 280 g

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KL-0122-605





KL-0122-606

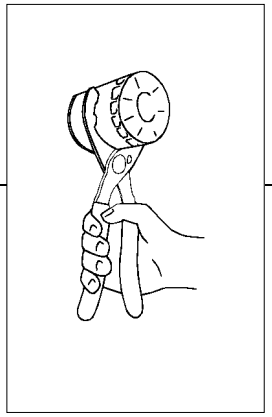


KL-0122-651



KL-0122-851





KL-0122-852



KL-0122-605 Oil Filter Key
135 mm 18 faces

Necessary to remove and replace the oil-filter housing when replacing the oil-filter element.

Applicable e.g. for the **MAN** 18 - 48 tons series **F2000, FE and TGA.** (MANN Filter No. HU 1381 x)

Drive: ..... 1/2"☐

KL-0122-606 Oil Filter Key
106 mm hex. 15 faces

Stubborn and hard to reach oil filters quickly and easily removed and replaced.

Applicable e.g. for the **MAN** 8 - 10 tons series **L2000, LE, M2000 and ME.** (MANN Filter No. W 1160)

Drive: ..... 1/2"☐

KL-0122-651 Oil Filter Key
106 mm hex. 15 faces

Stubborn and hard to reach oil filters quickly and easily removed and replaced.

Applicable e.g. for the **MAN** 8 - 10 tons series **L2000, LE, M2000 and ME.** (MANN Filter No. W 1160)

Drive: ..... 1/2"☐

KL-0122-851 Oil Filter Pliers Ø 57-100 mm

Suitable for HGV's, Tractors, etc.

The tool has 2 steps allowing a wide operating range from 57 to 100 mm. For better handling, the Jaws are angled by 20°. Hardened teeth prevent the tool slipping.

Slip Joint Handles for greater Range.

Range: .....Ø 57-100 mm
Weight: .....560 g

KL-0122-852 Oil Filter Pliers Ø 92-152 mm

Suitable for HGV's, Tractors, etc.

The tool has 2 steps allowing a wide operating range from 92 to 152 mm. For better handling, the Jaws are angled by 20°. Hardened teeth prevent the tool slipping.

Slip Joint Handles for greater Range.

Range: .....Ø 92-152 mm
Weight: .....760 g

Note: Further Oil Filter Keys see car chapter engine 6.7.

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KL-0145-30

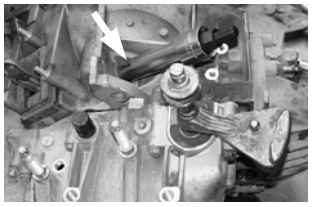


KL-1600-10

Fiat



Clutch shaft extraction



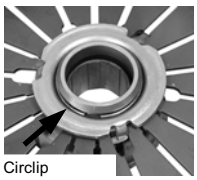
Pull-action clutch



KL-1600-11

Fiat





Removing releaser bearing



KL-0043-32

Universal





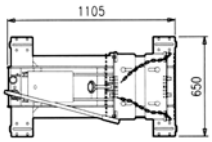
KL-0145-30 Transmission Lift

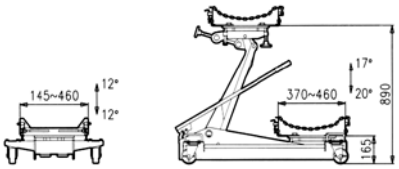
Hydraulic Transmission Lift to allow removal and replacement of assemblies such as: Engines, Gearboxes, Rear Axles, etc.

- Also useful for changing Clutches on Tractors.
- Adjustable Universal Table with adjustable Corner Pieces and Safety-Chains to allow optimal positioning of the transmission during re-assembly.
- Good stability coupled with easy mobility thanks to large diameter castor wheels.
- Pump handle rotates through 360 degrees to allow easy and precise positioning during lifting.

Technical Data:

Weight:	150 kg
Load max.	1500 kg





KL-1600-10 Puller for Fiat Ducato releaser shaft

For use on Fiat Ducato 1994 onwards with pull-action clutch.

For removal of the clutch releaser shaft.

This tool is needed when removing the gearbox, for example in order to change the clutch or for gearbox repairs.

KL-1600-11 Releaser bearing removal pin

For use on Fiat Ducato 1994 onwards with pull-action clutch.

To remove the releaser bearing from the pressure plate, the Circlip must be pretensioned with removal pin **KL-1600-11**.

KL-0043-32 Bearing Extractor Set (Universal)

(With Plastic case). For pilot bearings, generator bearings, etc.

With range from **10 - 30 mm diameter**.

Application: For passenger cars and trucks (lorries)

The collets are manufactured from a special high grade steel to ensure proper functioning of the tool.

consists of:

Part No.	Description	Part No.	Description
KL-0043-3101	Spreader 5 mm	KL-0043-3110	Jaws 17 mm
KL-0043-3102	Spreader 6 mm	KL-0043-3111	Jaws 20 mm
KL-0043-3103	Slide Weight	KL-0043-3112	Jaws 25 mm
KL-0043-3107	Jaws 10 mm	KL-0043-3113	Jaws 27 mm
KL-0043-3108	Jaws 12 mm	KL-0043-3114	Jaws 30 mm
KL-0043-3109	Jaws 15 mm	KL-0043-3115	Plastic Case (empty)

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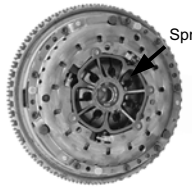
KL-0500-40 K

SAC-clutches
(3 hole pitch)



Application:

Self-Adjusting-Clutch (SAC)



Centering clutch plate



Putting on pressure plate



Pretensioning clutch



Turning back adjuster ring



KL-0500-40 KA

SAC-clutches
(3 / 4 hole pitch)



KL-0500-40 K SAC Clutch Tool Set
in Plastic Case
(German Utility Model)

Applicable for SAC-Clutches (3 hole partition) e.g. VW-Audi, BMW, Mercedes, Volvo, Opel/Vauxhall, Renault etc.

The tool set **KL-0500-40 K** is necessary to remove and install SAC (Self-Adjusting-Clutch) clutches quickly and expertly.

SAC-Clutch tool set, with the adjuster ring small springs into the jaw. Without this tool set the correct installation of the clutch is almost impossible, as the clutch can be uptight or damaged and, as a consequence, it cannot be disengaged or it „scrapes“. The tool set **KL-0500-40 K** prevents the damaging of the SAC-Clutch during removal and new installation, as well as the twisting of the adjuster ring inside the pressure plate.

Operation:

Before removal, pre-tension the clutch pressure plate by means of the clamping device.

⇒ For this purpose unscrew the three fastening screws and screw three thread bolts in their place. Place the pretension jack on the thread bolts and fix them with the knurled nuts. Screw the compression strut to the clamping device until the diaphragm spring reaches the limit stop. Screw out the remaining fastening screws, unstress the diaphragm spring and the pretension jack and remove the clutch pressure plate.

Centering clutch plate:

⇒ Insert the centering tool and the clutch plate together with a suitable centering dome into the fly wheel.

Putting on pressure plate:

⇒ Put the pressure plate on the fly wheel and install the clutch pretensioner as during removal. Stress the diaphragm spring up to the limit stop position and screw the relative fastening screws. Advantage:

⇒ Pretensioning the clutch pressure plate when removing and installing (important as a means of avoiding distortion).

⇒ Centring the clutch plate in relation to the guide bearing or pressure plate.

⇒ Moving back the adjuster ring in conjunction with resetting tool **KL-0500-403**.

Note: The most types of SAC clutches have 3 hole partition but in some cars e.g. Mercedes A class (from 2004 onwards [W169]) you can find SAC clutches with 4 hole partition. For those types you need the supplement kit **KL-0500-4014**.

Specification: (Single tools see page 7-03)

Part-No.	Description	Qty.
KL-0500-401	Clutch pretensioner	1
KL-0500-402	Clutch Aligner	1
KL-0500-403	Resetting Tool	1
KL-0500-404	Clutch Mandrel Set	1
KL-0500-4090	Plastic case [empty]	1

KL-0500-40 KA SAC Clutch Tool Set
in Plastic Case
(German Utility Model)

As KL-0500-40 K,
but applicable for SAC-clutches (3 and 4 hole pitch)
e.g. VW-Audi, BMW, Mercedes, Volvo, Opel/Vauxhall, Renault etc.

Specification: (Single tools see page 7-03)

Part-No.	Description	Qty.
KL-0500-401	Clutch pretensioner	1
KL-0500-402	Clutch Aligner	1
KL-0500-403	Resetting Tool	1
KL-0500-404	Clutch Mandrel Set	1
KL-0500-4014	Supplementary set (4 hole pitch)	1
KL-0500-4090	Plastic case	1

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KL-0500-401





Self-Adjusting-Clutch



KL-0500-402



Centring clutch plate



KL-0500-403



Turning back adjuster ring

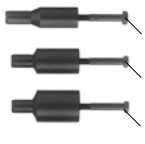


Pretensioning clutch. (3-hole pitch)



KL-0500-404

BMW



KL-0500-11

KL-0500-12

KL-0500-14

Pretensioning clutch. (4-hole pitch)



KL-0500-4014





KL-0500-401 Clutch pretensioner

On these self-adjusting clutches it is essential for the pressure plate to be pretensioned with clutch compressor **KL-0500-401** before removal or installation.

Avoiding clutch distortion (clutch judder when driving off).

KL-0500-402 Clutch Aligner

Clutch Aligner **KL-0500-402** locates the clutch plate centrally in relation to the guide bearing or pre-tensioning device before it is installed.

Clamping cone :
Size. 1 15-22 mm; Size. 2 22-28 mm

Mandrel-Ø:
12 mm; 14 mm; 15 mm; 16 mm; 17 mm; 18 mm; 19 mm

KL-0500-403 Resetting Tool

The adjuster ring in the clutch pressure plate can be turned back with resetting tool **KL-0500-403** together with clutch compressor **KL-0500-401**.

KL-0500-404 Clutch Mandrel Set

Suitable for BMW vehicles.

To centre the clutch plate before initial or renewed installation of the pretensioned SAC-Clutch pressure plate.

Specification:

Part-No.	Description	Qty.
KL-0500-11	Clutch Mandrel Ø15/23 mm	1
KL-0500-12	Clutch Mandrel Ø15/28 mm	1
KL-0500-14	Clutch Mandrel Ø15/34 mm	1

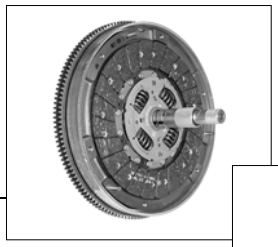
KL-0500-4014 Supplement Kit
(4 hole pitch) for KL-0500-40 K

Required for pretensioning the clutch pressure plate when removing and installing SAC-clutches with 4 hole pitch.

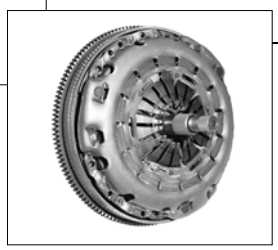
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KL-0069-7





KL-0069-7 R

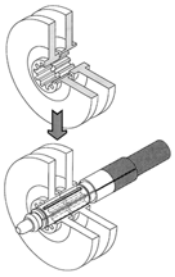




KL-0069-60 K



Universal Car, HGV



KL-0069-6



KL-0069-67 K



Universal HGV



KL-0069-7 Clutch Aligner

Applicable for trucks and small lorries with a hub-Ø of 24 - 36 mm.

Part No.	Description
KL-0069-7	Clutch Aligner Tool for Transporter
consists of:	
KL-0069-700	Sleeves (Ø 15, 16, 17, 18, 19, 20 mm)
KL-0069-710	Clutch Aligner Ø 24-36 mm

KL-0069-7 R Clutch Aligner

Suitable for Transporter and small lorries with hub-Ø of 23 - 35 mm, especially Renault.

Part No.	Description
KL-0069-7 R	Clutch Aligner Tool (Renault)
consists of:	
KL-0069-700	Sleeves (Ø 15, 16, 17, 18, 19, 20 mm)
KL-0069-710 R	Clutch Aligner Ø 23-35 mm

KL-0069-60 K Clutch Aligner Set

For vehicles with single and double disc clutches.

Part No.	Description
KL-0069-60K	Clutch Aligner Set
consists of:	
KL-0069-55	Clutch Aligner for Vehicles
KL-0069-5010	Aligner Case Set (Ø 12, 14, 15, 16, 17, 18, 19 mm)
KL-0069-6	Clutch Aligner for Trucks
KL-0069-6090	Plastic Storage Case (empty)

- **KL-0069-55 + KL-0069-5010 (KL-0069-5)**

Universal Clutch Aligner Set with Aligner Cases.

For hub-Ø: 15 - 28 mm
Because of the parallel expanding technology it is possible to centre the clutch plate to the clutch pressure plate or to the flywheel.

- **KL-0069-6 Clutch Aligner Tool for Trucks**

For trucks with single or double disc clutches (universal)

This tool set allows the correct alignment of **single or double disc** clutches of trucks and tractors to the engine. Mandrel No. 1 is applicable on interior clutch hub-Ø from 36 - 45 mm. Mandrel No. 2 is applicable on interior clutch hub-Ø 42 - 52 mm inside. The clutch aligner kit contains centering sleeves with Ø 20, 25, 27 and 30 mm.

KL-0069-6 Clutch Aligner for Trucks

For trucks with single disc and double disc clutch (Universal).

The clutch aligner kit contains centering sleeves with Ø 20,25,27,30 mm.

This tool allows the correct alignment of single disc and double disc clutches on trucks and tractors to the engine. Mandrel No. 1 is applicable on interior clutch hub-Ø from 36 - 45 mm. Mandrel No. 2 is applicable for interior clutch hub-Ø from 42 - 52 mm.

KL-0069-6 K Clutch Aligner

As **KL-0069-6**, but in plastic case **KL-0069-6090**.

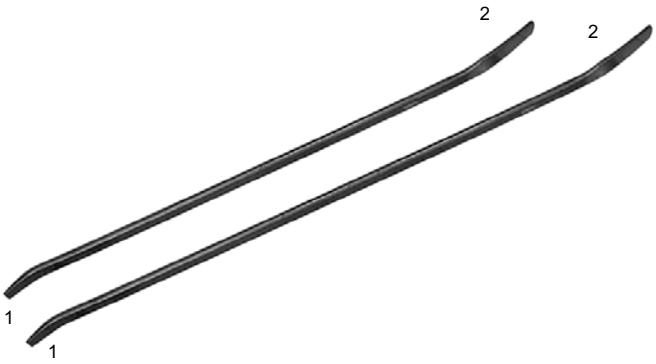
KL-0069-67 K Clutch Aligner Set

Suitable for Transporter and small lorries with single disc and double disc clutch (Universal).

Part No.	Description
KL-0069-67 K	**Clutch Aligner Set**
consists of:	
KL-0069-6	Clutch Aligner for Trucks
KL-0069-7	Clutch Aligner for Transporter
KL-0069-6090	Plastic Case (empty)

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KL-0193-95



KL-0190-94

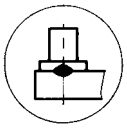


KL-0193-90

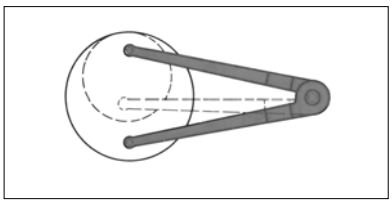


Pin Spanner adjustable, riveted or welded.

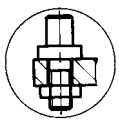
KL-0149-111 - KL-0149-143







KL-0149-211 - KL-0149-223





KL-0193-95 Pry Bar Set

These Pry Bars are manufactured from special steel and are particularly suitable for:

- **Dismantling stubborn components.**
- **Positioning and holding components in required position.**
- **Checking ball joints and silent bearings.**
- **Spreading clamp-fixtures, etc.**

Technical Data:

Length	Blade Width 1 / 2	Weight
730 mm	24 / 33 mm	1600 g
1050 mm	24 / 33 mm	1900 g

KL-0190-94 Pry Bar

Pry Bar made of special steel especially suitable for:

- **Dismantling stubborn components.**
- **Positioning and holding components in required position.**
- **Spreading clamp-fixtures, etc.**

Length: ..... 900 mm Blade width: ..... 24 mm

KL-0193-90 Pry Bar Set

Set consists of four hard wearing pry bars applicable for a number of different jobs.

- **Dismantling stubborn components.**
- **Positioning components.**
- **Holding components in required position.**
- **Spreading clamp-fixtures, etc.**

Part No.	Length	Pry Width
KL-0193-90		
consists of:		
KL-0193-904	24“ (610 mm)	20 mm
KL-0193-903	18“ (460 mm)	20 mm
KL-0193-902	12“ (310 mm)	16 mm
KL-0193-901	8“ (200 mm)	10 mm

Pin Spanner, adjustable

For twin-hole nuts, with riveted or welded pins (not replaceable).

Special steel, gunmetal finish.

Part No.						g
KL-0149-111	7-40	1,5	2,8	115	3	40
KL-0149-112		2	3,6			
KL-0149-113		2,5	4			
KL-0149-121	11-60	3	4	160	4	140
KL-0149-122		4	5			
KL-0149-123		5	6			
KL-0149-131	14-100	5	6	215	6	300
KL-0149-132		6	7			
KL-0149-133		8	8			
KL-0149-141	22-125	8	8	260	6	500
KL-0149-142		10	10			
KL-0149-143		12	12			

For twin-hole nuts, with inter-changeable pins.

Special steel, gunmetal finish.

Part No.						g
KL-0149-211	11-60	3	4	160	4	140
KL-0149-212		4	5			
KL-0149-213		5	6			
KL-0149-221	14-100	5	6	215	6	300
KL-0149-222		6	7			
KL-0149-223		8	8			

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KL-0149-311 - KL-0149-342



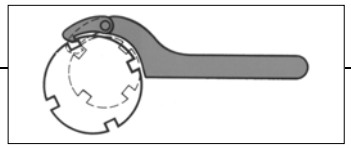
KL-0149-411 - KL-0149-442



KL-0148-311 - KL-0148-382

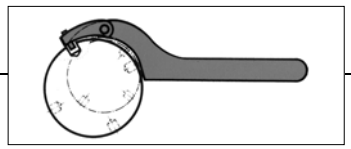


KL-0148-211 - KL-0148-252





KL-0148-511 - KL-0148-515





Adjustable Pin Spanners

Special steel, gunmetal finish

For twin-hole nuts, with welded pins

Part-No.						g
KL-0149-311	18-40	3	4	150	5	90
KL-0149-312		4	5			
KL-0149-321	40-80	4	5	220	6	245
KL-0149-322		5	6			
KL-0149-323		6	7			
KL-0149-331	80-125	6	7	320	8	670
KL-0149-332		7	7,5			
KL-0149-333		8	8			
KL-0149-341	125-200	8	8	450	10	1 750
KL-0149-342		10	10			

For twin-hole nuts, with inter-changeable pins

Part-No.						g
KL-0149-411	18-40	3	4	150	5	90
KL-0149-412		4	5			
KL-0149-421	40-80	4	5	220	6	245
KL-0149-422		5	6			
KL-0149-423		6	7			
KL-0149-431	80-125	6	7	320	8	670
KL-0149-432		7	7,5			
KL-0149-433		8	8			
KL-0149-441	125-200	8	8	450	10	1 750
KL-0149-442		10	10			

Spanners Special steel, gunmetal finish

For Castellated Nuts DIN 1816

Part-No.						g
KL-0148-311	12-14	2	2	110	3	25
KL-0148-312	16-18	2,5	2,5			
KL-0148-321	20-22	2,5	2,5	110	3	40
KL-0148-331	25-28	3	3	136	4	55
KL-0148-332	30-32	4				
KL-0148-341	34-36	4	3,5	170	5	100
KL-0148-342	40-42					
KL-0148-351	45-50	5	4	205	6	165
KL-0148-352	52-55					
KL-0148-361	58-62	5	5	240	7	270
KL-0148-362	68-75	6				
KL-0148-371	80-90	6	6	280	8	410
KL-0148-372	95-100	8				
KL-0148-381	110-115	8	8	335	10	780
KL-0148-382	120-130					

For Castellated Nuts DIN 1816, Jointed

Part No.					g
KL-0148-211	20-35	2,5	3	135	50
KL-0148-212		3	3		
KL-0148-213		4	4		
KL-0148-221	35-60	4	4	175	100
KL-0148-222		5	5		
KL-0148-231	60-90	5	5	250	280
KL-0148-232		6	6		
KL-0148-241	90-155	6	6	290	460
KL-0148-242		8	8		
KL-0148-251	155-230	8	8	420	1 200
KL-0148-252		10	10		

For Castellated DIN 1804, Jointed

Part No.					g
KL-0148-511	20-35	135	9	4	50
KL-0148-512	35-60	175	10,5	5	100
KL-0148-513	60-90	250	12,5	7	280
KL-0148-514	90-155	290	14	8	460
KL-0148-515	155-230	420	17,5	10	1 200

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KL-0152-90 K



Twin-Arm Pullers

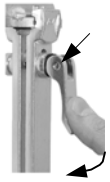


Triple-Arm Pullers



KL-0152-91 K

fast-clamp adjustment





Twin-Arm Puller



Triple-Arm Puller



Puller Set Twin- / Triple-Arm

with fast-clamp lever

For pulling off washers, gearwheels or ball bearings.

These twin- or triple-arm universal pullers with fast clamping hooks can be used as internal or external pullers, simply by repositioning the hooks.

The extremely narrow hook feet are necessary for gearbox repairs if pullers with conventional hooks cannot be inserted for space reasons.

Advantages:

- The hooks always grip in parallel and can be attached to the bridge by means of a fast clamping lever.
- All-purpose tools
- Cost saving ⇒ 1 spindle and either 2 or 4 hooks are not needed.
- The best choice for the professional in rough day-to-day working conditions in industry or for work on cars or trucks.

KL-0152-90 K Puller Set Twin- / Triple-Arm

with fast-clamp lever

Contents:

Part-No.	Description	Qty.
KL-0152-90 K	**Puller Set 2- / 3-Arm**	**1**
consists of:		
KL-0150-0001	Twin-Arm Yoke	1
KL-0151-0001	Triple-Arm Yoke	1
KL-0152-0002	Spindle M14x1,5 x 140 with centre point	1
KL-0152-1103	Clamps - short	3
KL-0152-0005	Fast-clamp lever with pulling bolt	3
KL-0152-1004	Hooks without clamps (a=3,6 mm)	3
KL-4990-1004	Plastic case (275 x 230 x 83 mm)	1

Technical Data:

Part-No	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0152-90 K	100	100	2,5 t.	2,1

KL-0152-91 K Puller Set Twin- / Triple-Arm

with fast-clamp lever

Contents:

Part-No.	Description	Qty.
KL-0152-91 K	**Puller Set 2- / 3-Arm**	**1**
consists of:		
KL-0150-0001	Twin-Arm Yoke	1
KL-0151-0001	Triple-Arm Yoke	1
KL-0152-0002	Spindle M14x1,5 x 140 with centre point	1
KL-0152-1203	Clamps - middle	3
KL-0152-1103	Clamps - long	3
KL-0152-0005	Fast-clamp lever with pulling bolt	6
KL-0152-1004	Hooks without clamps (a=3,6 mm)	3
KL-0152-0004	Hooks without clamps (a=2,0 mm)	3
KL-4990-1007	Plastic case (340 x 275 x 83 mm)	1

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0152-91 K	100	100 / 200	2,5 t. (if a=3,6 mm) 2,0 t. (if a=2,0 mm)	3,6

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KL-0150-Serie





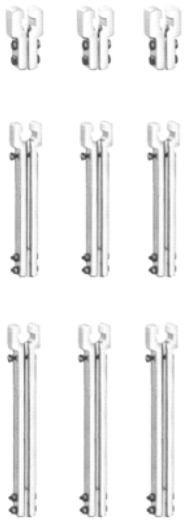
KL-0150-6



KL-0151-9

Pair of Clamps
short - middle - long





KL-0150-Series Twin-Arm Pullers Universal

The universal twin-arm pullers can be adapted to be inner or outer pullers by reversal of the two arms on the yoke.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0150-0*	100	100	2 t.	1,0
KL-0150-1	100	100	3 t.	1,0
KL-0150-1,5	135	100	3 t.	1,0
KL-0150-2	170	150	5 t.	3,0
KL-0150-2,5	220	150	5 t.	3,2
KL-0150-3	260	200	7,5 t.	7,0

* The puller **KL-0150-0** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair).

KL-0150-6 Special Twin-Arm Puller Set

The puller **KL-0150-6** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair)

Part-No.	Description	Qty.
KL-0150-6	**Special Twin-Arm Puller Set**	
consists of:		
KL-0150-1501	Yoke	1
KL-0150-0002	Spindle	1
KL-0150-0003	Pair of Clamps short* (for 1 Hook)	2
KL-0150-1203	Pair of Clamps middle* (for 1 Hook)	2
KL-0150-1253	Pair of Clamps long* (for 1 Hook)	2
KL-0150-0004	Hooks (extremely tight)	6

* with screws for 1 hook.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0150-6	135	100 / 200 / 250	2 t.	3,2

KL-0151-9 Special Triple-Arm Puller Set

The puller **KL-0151-9** is fitted with extremely pointed ends of hooks and an extremely tight hook shift (Important for Transmission repair)

Part-No.	Description	Qty.
KL-0151-9	**Special Triple-Arm Puller Set**	
consists of:		
KL-0151-1501	Yoke	1
KL-0150-0002	Spindle	1
KL-0150-0003	Pair of Clamps short* (for 1 Hook)	3
KL-0150-1203	Pair of Clamps middle* (for 1 Hook)	3
KL-0150-1253	Pair of Clamps long* (for 1 Hook)	3
KL-0150-0004	Hooks (extremely tight)	9

* with screws for 1 hook.

Technical Data:

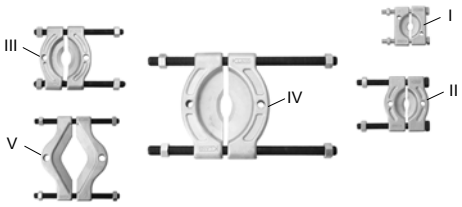
Part-No.	⇔ [mm]	⇕ [mm]	Load.$_{max.}$	Weight [kg]
KL-0151-9	135	100 / 200 / 250	2 t.	4,8

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KL-0172-50 K



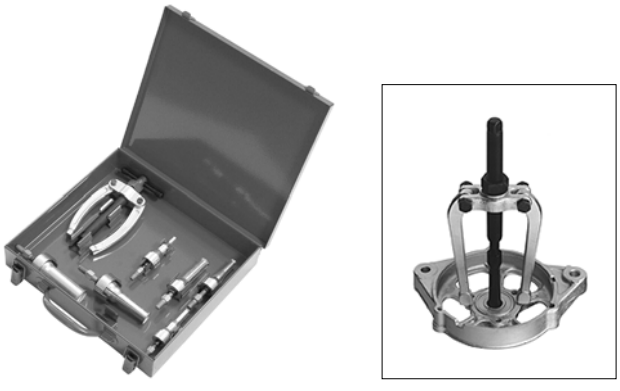
Separator



KL-0155-39



KL-0175-60



KL-0172-50 K - Bearing Separator Set

The ideal tool for all workshops!

The bearing separator is especially suitable to remove bearings, inner races and other firmly-seated components.
The wedge-profile and sharpened blades of the puller can be forced below the component to be removed by tightening the clamping bolts

The set consists of 5 pullers and is delivered in a plastic case.

Technical Data:

Pos.	Diameter ranges⇔ [mm]	Thread (for reaction puller)
I	6 - 26 mm	5/16"-18 UNC
II	5 - 55 mm	3/8"-16 UNC
III	9 - 125 mm	5/8"-18 UNF
IV	15 - 230 mm	5/8"-18 UNF
V	49 - 155 mm	5/8"-18 UNF

Accessories:
Tension bolts and separator pullers see page 8-09.

KL-0155-39 Drive shaft bearing puller

Especially for dismounting and mounting drive-shaft bearings.

Technical Data:

Part-No.	⇔ [mm]	⇕ [mm]	Weight [kg]
KL-0155-39	45-75	750	14

Procedure for removing bearings:

Place the Bearing Separator firmly and uniformly behind the bearing and align the puller arms parallel with the shaft and spindle. Turn the spindle to pull off the bearing.

Procedure for pulling on bearings:

Place the flat side of the Bearing Separator behind the bearing. Insert the hooks behind the clamping screws of the separating blade. The bearing is then pulled against the shaft flange by tightening the spindle.

KL-0175-60 Pilot Bearing Extractor Set

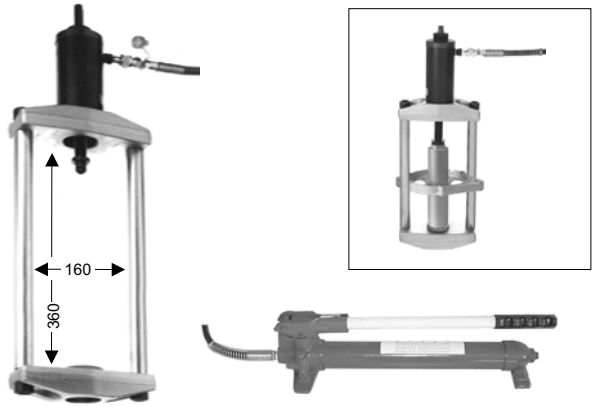
For removal of Pilot Bearings, Bushes etc. from blind housings.

Contents:

Part-No.	Description	for Ø [mm]	Thread
KL-0175-300	Support	-	-
KL-0175-601	Jaws	8-12	M10
KL-0175-602	Jaws	12-15	M10
KL-0175-603	Jaws	15-19	M10
KL-0175-604	Jaws	19-25	M10
KL-0175-605	Jaws	25-30	M10
KL-0175-606	Jaws	30-35	M10
KL-0175-6090	Metal Case	-	-

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KL-0043-900



KL-0159-11



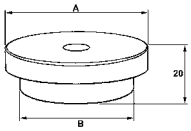
Application



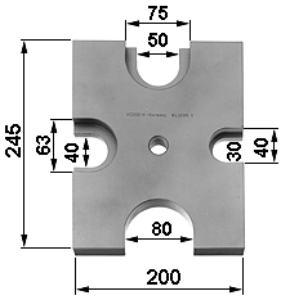
KL-0159-12

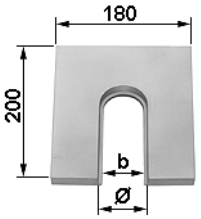


Dimensions

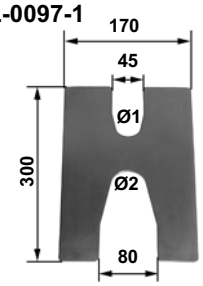


KL-0095-1 / KL-0096-1 / KL-0096-2 / KL-0096-3 / KL-0096-4





KL-0097-1





KL-0043-900 Press Tool with hydr. Cylinder (17 t.)

Hydraulic Press **KL-0043-900** may be used in conjunction with Press Tool Sets **KL-0043-8295, KL-0043-8595, KL-0159-11 or KL-0159-12** to extract or assemble Shafts, Suspension parts, Bearings, Ball-Joints, Bushes, etc.
Due to portable construction, the Hydraulic Press may also be used on the vehicle. Weight:.....26,6 kg

Contents:

Part No.	Description
KL-0043-902	Press Frame
KL-0040-2500	Hydraulic Cylinder
KL-0040-2510	Spindle
KL-0215-35	Hydraulic hand pump with hose and connector

Technical Data: Press Frame KL-0043-902:

Total Height	430 mm	Mount-Ø	30 mm
Working height	360 mm	Mounting thread Cylinder	2¼"-14UNS
Total width	220 mm	Adaptor	2¼"-14UNS to Ø 30 mm
Working width	160 mm	weight	14,2 kg
Depth	100 mm		

KL-0145-801 Hydraulic Bench Press 10 t

As **KL-0145-80** but without hydraulic hand pump **KL-0215-35.**

Pressure Piece Sets

For extraction or insertion of Bearings, Shafts, Bushes, etc. in conjunction with any Hydraulic Press, or with **KL-0043-82**, **KL-0043-85** or **KL-0043-900**.

KL-0159-11 Pressure Piece Set
Mounting Bore 10 mm
consists of:

Part No.	A [mm]	B [mm]
KL-0159-1101	22	20
KL-0159-1102	24	22
KL-0159-1103	26	24
KL-0159-1104	28	26
KL-0159-1105	30	28
KL-0159-1106	32	30
KL-0159-1107	34	32
KL-0159-1108	36	34
KL-0159-1109	38	36
KL-0159-1110	40	38
KL-0159-1111	42	40
KL-0159-1112	44	42
KL-0159-1113	46	44
KL-0159-1114	48	46
KL-0159-1115	50	48
KL-0159-1120	Pilot Ø10	
KL-0159-1121	Blank Ø10	
KL-0159-1122	Case	

KL-0159-12 Pressure Piece Set
Mounting Bore 20 mm
consists of:

Part No.	A [mm]	B [mm]
KL-0159-1201	52	50
KL-0159-1202	54	52
KL-0159-1203	56	54
KL-0159-1204	58	56
KL-0159-1205	60	58
KL-0159-1206	62	60
KL-0159-1207	64	62
KL-0159-1208	66	64
KL-0159-1209	68	66
KL-0159-1210	70	68
KL-0159-1211	72	70
KL-0159-1212	74	72
KL-0159-1213	76	74
KL-0159-1214	78	76
KL-0159-1215	80	78
KL-0159-1220	Pilot Ø20	
KL-0159-1221	Blank Ø20	
KL-0159-1222	Case	

Stripper Plates

KL-0095-1 Stripper Plate Size 2
For pulling and replacing of bearings at, e.g., rear axles, transmissions and engines (Technical Data see Picture).

KL-0096-1 Stripper Plate Ø 62 mm (b = 55 mm)
For demounting the rear axle bearing on **Opel/Vauxhall** vehicles.

KL-0096-2 Stripper Plate Ø 67 mm (b = 57 mm)
For demounting the rear axle bearing on **Opel/Vauxhall, Ford and Fiat** vehicles

KL-0096-3 Stripper Plate Ø 72 mm (b = 63 mm)
For demounting the rear axle bearing on **Opel/Vauxhall and Ford** vehicles

KL-0096-4 Stripper Plate Ø 52 mm (b = 39 mm)
For removal of the fifth gear in **Mercedes** manual gearboxes.
Height of flange: 4 mm.

KL-0097-1 Stripper Plate thin-walled (4 mm) made from special heat-treated steel Ø1 = 30 mm; Ø2 = 45 mm
Especially useful for very narrow clearances (only 4 mm)

Note: KL-0097-1 Stripper Plate may also be used in conjunction with the **KL-0150-2,5** Puller.

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KL-0194-130

KL-0194-13



KL-0194-14



KL-0194-15



KL-0194-16



KL-0194-130 Set of plastic wedges (4 pcs.)

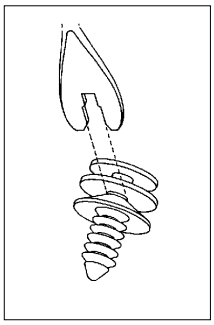
The four plastic wedges are particularly suitable for body work such as removing and installing trim strips, door trims, door clips etc.

Contents / Technical Data:

Part-No.	Description	Measures [mm]	Weight [g]
KL-0194-130	**Set of plastic wedges**		**250**
consists of:			
KL-0194-13	Plastic wedge with felt	255 x 20 x 25	75
KL-0194-14	Plastic wedge with straight and angled tip	250 x 20 x 10	35
KL-0194-15	Plastic wedge	200 x 30 x 25	75
KL-0194-16	Plastic wedge angled with cutout and pin (for door clips).	230 x 22 x 8	55

KL-0190-10





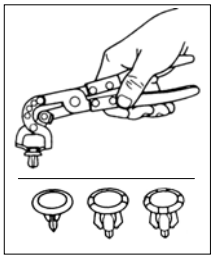
KL-0190-10 Trim Pry

For removal of door inner-linings.

Weight: ..... 200 g

KL-0190-41





KL-0190-41 Rivet Removal Pliers

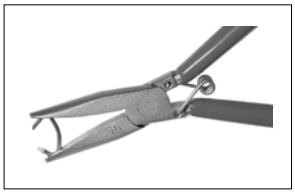
With 90° rotating head.

To remove 2-part re-usable plastic rivets - examples: on Trim or inner door facings.

By lifting the central spreader pin with the Pliers **KL-0190-41** the Plastic Rivet may be withdrawn.

KL-0190-50





KL-0190-50 Hog Ring Pliers Set

For closing Hog Rings to repair passenger car seats (various manufacturers).

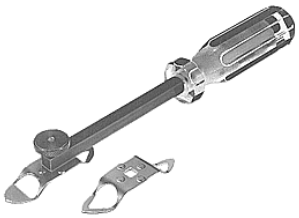
Size: ..... 220 × 115 × 33 mm
Weight: ..... 500 g

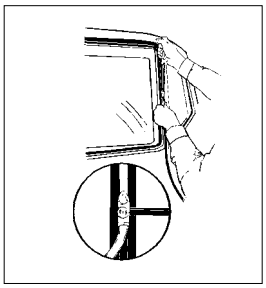
Contents:

Part No.	Description	Qty
KL-0190-50	**Hog Ring Pliers Set**	**1**
consists of:		
KL-0190-5	Hog Ring Pliers	1
KL-0190-501	Hog Rings (100 Pcs)	1
KL-0190-5090	Plastic Storage Case	1

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KL-0194-41





KL-0194-41 Windscreen Locking Strip Tool

Two Double-Ended Tips to Fit Most Applications.

Just select the tip with opening that most closely fits locking strip and then feed locking strip into eyelet.

Weight: .....170 g

KL-0126-205



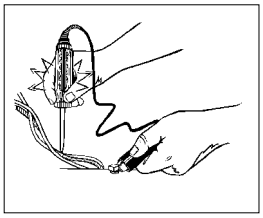
KL-0126-205 Magnetic Lifter Telescope with Scribing Iron

Universal application in handy form for pocket storage.

With a strong magnetic head with 7,5 mm Ø providing a lifting force of 300 g. Extendable to a total length of 670 mm, collapsed length only 155 mm. The Scribe may also be used to adjust the aim of screen-wash nozzles.

KL-0190-30





KL-0190-30 Pilot Lamp

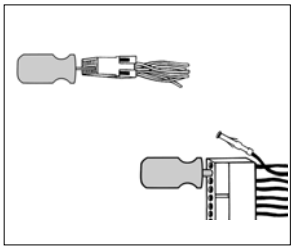
The Test lamp allows checking of connections and cables up to 24 volts DC. Locates short-circuits and open-circuits.

The probe-tip is protected by a screw-cap.

Weight: .....60 g

KL-0190-26





KL-0190-26 K Terminal Tool Set for push-on contacts

To release plug and socket cable connections.

During the release procedure the barbed hooks are pushed on the terminals by means of the tool forks, and then cables and plugs can be extracted.

Terminal tools:

Part No.	Description	Measures	Symbol
KL-0190-2601	Terminal Tool round with Spring “A“	3,3mm x 28mm	○
KL-0190-2602	Terminal Tool square “B“	1,4mm x 28mm	■
KL-0190-2603	Terminal Tool slot “C“	1,6mm x 25mm	⊖
KL-0190-2604	Terminal Tool slot “D“	2mm x 22,5mm	⊖
KL-0190-2605	Terminal Tool split slot “E“	8mm x 24mm	⊕
KL-0190-2606	Terminal Tool slot “F“	4,6mm x 25mm	⊖
KL-0190-2607	Terminal Tool round “G“	3,3mm x 28mm	○
KL-0190-2608	Terminal Tool round “H“	4,3mm x 13mm	○
KL-0190-2609	Terminal Tool round “I“	3,8mm x 12,3mm	○
KL-0190-2610	Terminal Tool round “J“	3,0mm x 12,5mm	○
KL-0190-2611	Terminal Tool split slot horizontal “K“	3,2mm x 19,2mm	⊟
KL-0190-2612	Terminal Tool split slot horizontal “L“	1,6mm x 16,3mm	⊟

Weight: .....300 g

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Pullers

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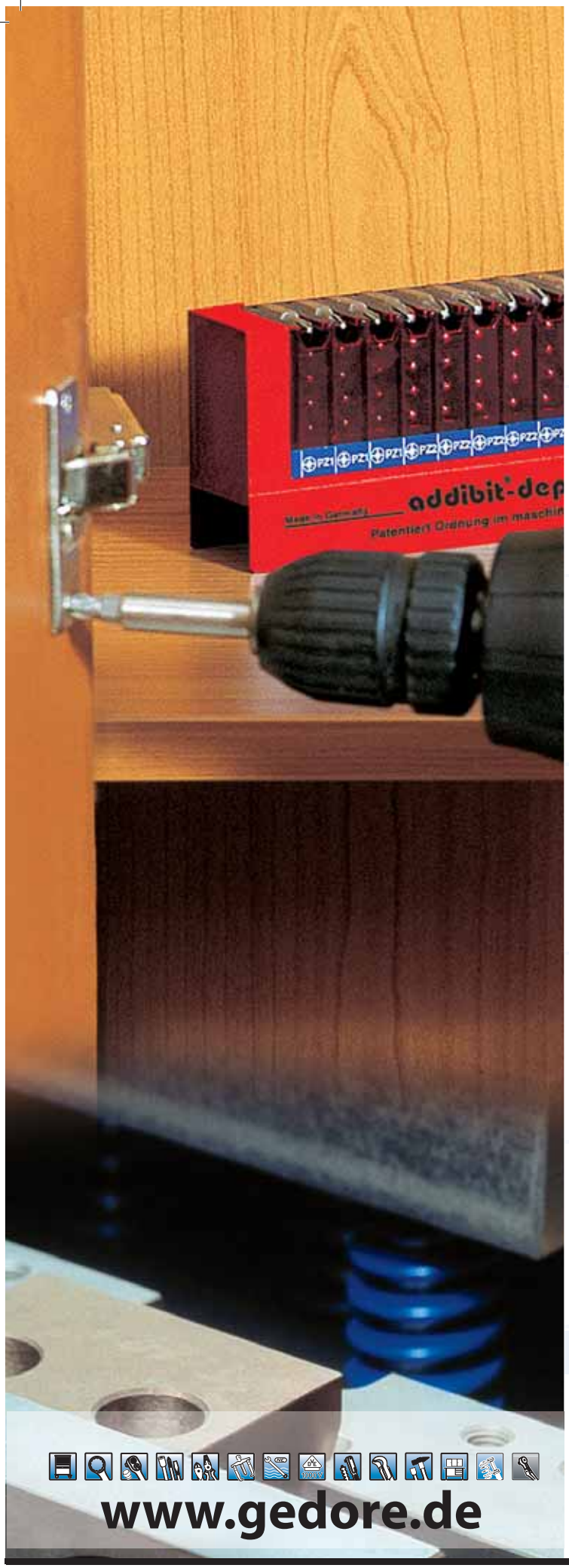
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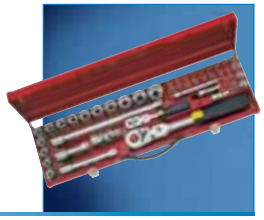


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SOCKET SETS
SOCKET SETS
SOCKET SETS



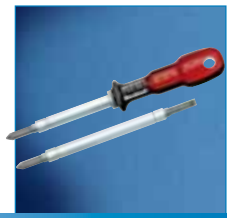
COMBINATION RING RATCHET
SPANNER SETS
COMBINATION RING
RATCHET SPANNER SETS



BIT DEPOTS
BIT DEPOTS
BIT DEPOTS



MAXIMUS SCREWDRIVER
WITH DOUBLE BITS
MAXIMUS SCREWDRIVER
WITH DOUBLE BITS



MINIMUS SET
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Torque wrenches





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Torque screwdrivers



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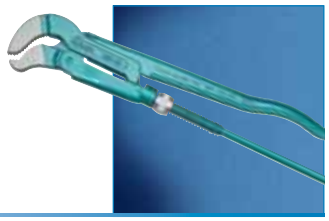
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Workbenches

Workbenches

Workbenches



Tool Cabinets

Tool Cabinets

Tool Cabinets



Tool Boxes

Tool Boxes

Tool Boxes



Tool cabinets

Tool cabinets

Tool cabinets



PC-cabinets

PC-cabinets

PC-cabinets



Wardrobes

Wardrobes

Wardrobes

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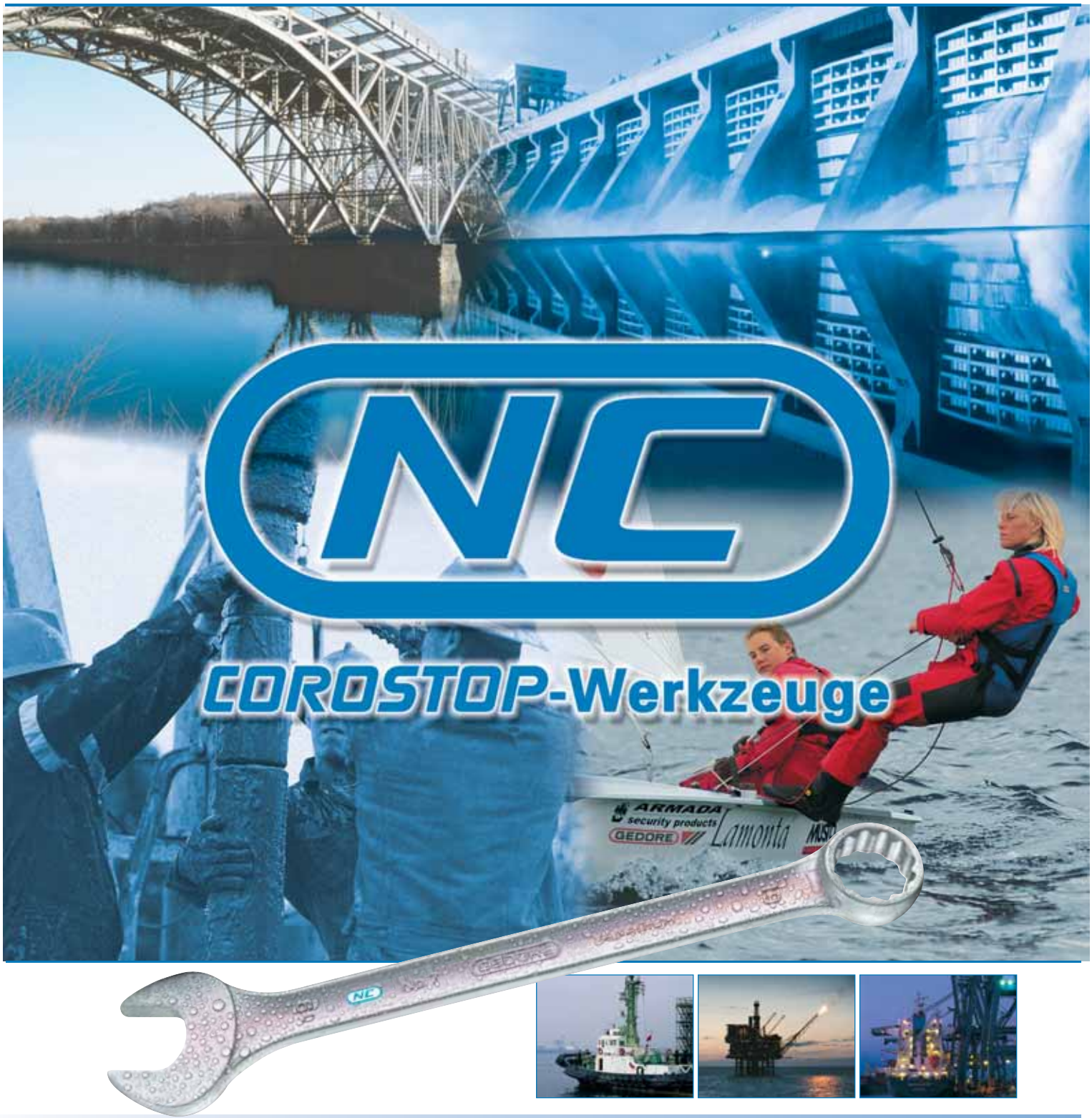
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