



## Chapter 11 overview



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e.g. Wheels, Bearings, Hubs, Drive shafts etc.



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**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

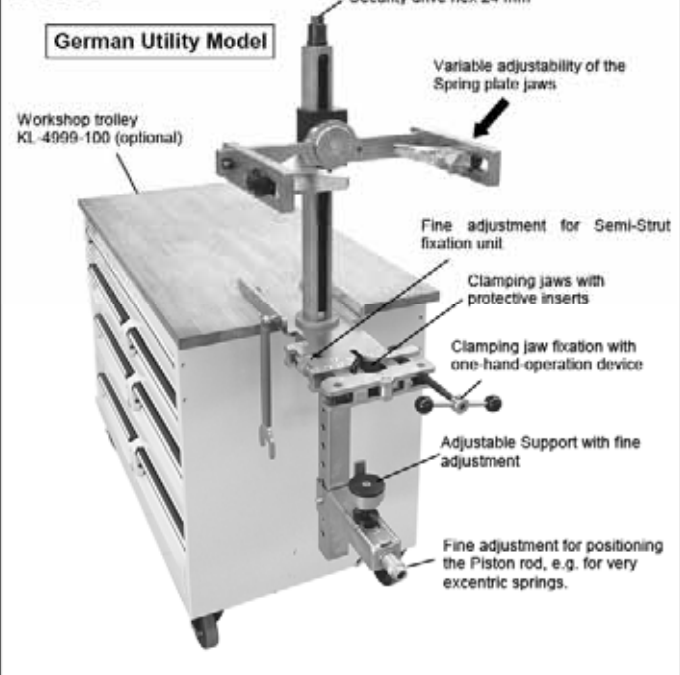


**11.8 Transmission Tools** Page 11.8-01 to 11.8-06



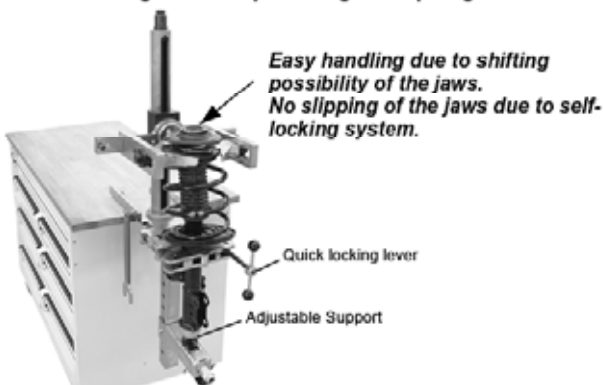
**11.9 Body and Interior Tools** Page 11.9-01 to 11.9-02

KL-5501



**Application Example:**

**Dismounting: ⇒ Compressing the spring.**



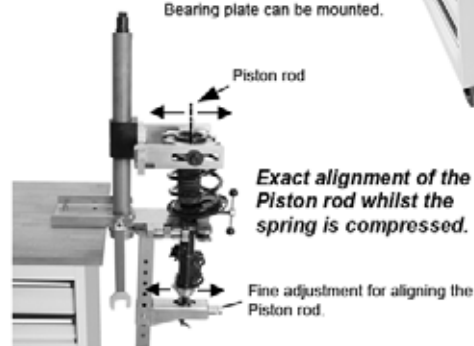
**Dismounting: ⇒ Spring is compressed.**

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



**Mounting: ⇒ Positioning the Piston rod.**

Bearing plate can be mounted.



## KL-5501 Spring Compressor stationary (German Utility Model)

**Universal use for all MacPherson- and Semi-Struts e.g. with standard springs, right or left wended springs, excentric springs or spring plates, conical springs, springs with small number of windings, high or different steepness of the coil winding.**

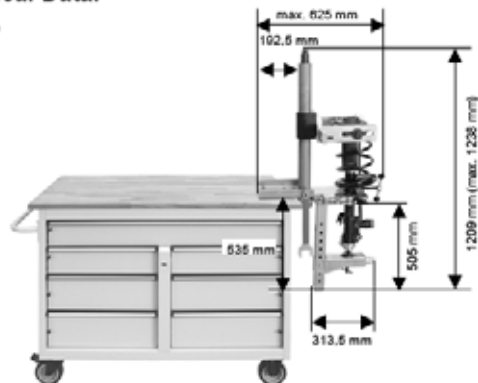
As the spring and its upper seat are stressed against the lower spring seat, the spring shape or the spring gradient are no object. The variably settable spring cup seat, the adjustable support and retaining jig with single hand operation widen the field of application of the compressor to almost any 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.

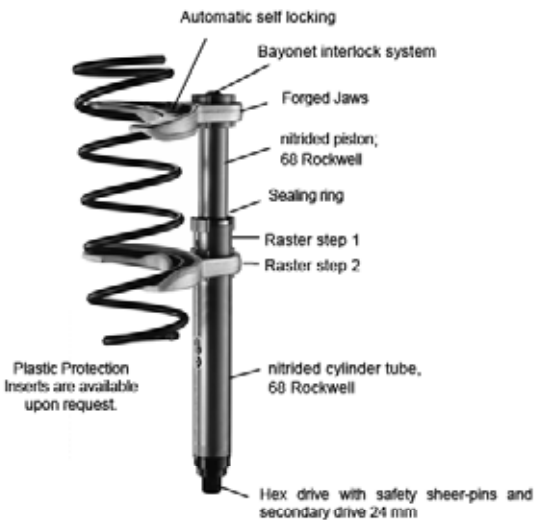
**Technical Data:**

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



## KL-9002 (Patented)

KL-9002-100



### Special Jaws



### 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 | • Ford    | • Lancia     | • Proton  | • Suzuki     |
| • Audi       | • GM      | • Mazda      | • Renault | • Ssang Yong |
| • BMW        | • Honda   | • Mercedes   | • Rover   | • Toyota     |
| • Chrysler   | • Hyundai | • Mitsubishi | • Saab    | • Vauxhall   |
| • Citroën    | • Isuzu   | • Nissan     | • Seat    | • Volvo      |
| • Daewoo     | • Jaguar  | • Opel       | • Škoda   | • VW         |
| • Daihatsu   | • Kia     | • Peugeot    | • Smart   |              |
| • Fiat       | • Lada    | • Porsche    | • Subaru  | etc.         |

The spring compressor **KL-9002**, due to its 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 II

### 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 distortion).

### 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**.



## KL-0165-3 K - Puller System with case

*The right choice!*

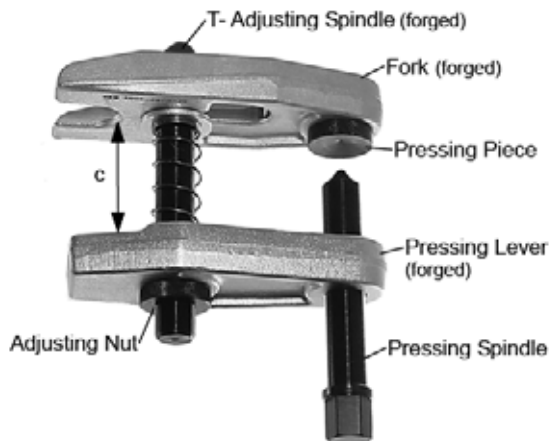


Suitable for Ball Joint Pivots.



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:  $c_{max} = 65 \text{ mm}$



Forks inter-changeable by 90 degree rotation.  
KL-0165-3:  $c_{max} = 70 \text{ mm}$

## 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 led 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 led 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.

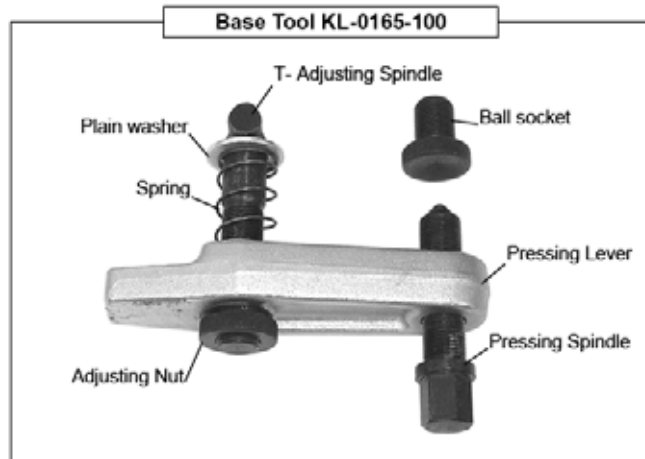
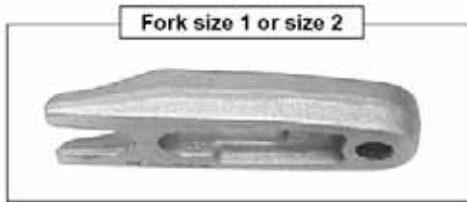
**Ball Joint Extractor size 3** (see Page 11.2-02)  
For cars.

### Advantages:

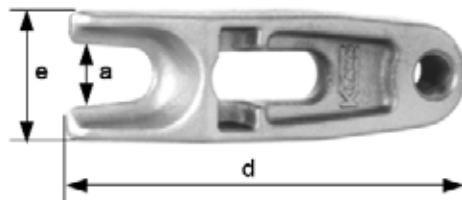
- The pressure fork is removed by a 90° rotation. Inter-changeable forks provide universal applications.
- Threaded adjustment allows exact positioning of the pivot to provide the exact angle of pressure.
- The pressure forks are located by an interlock with a T-form threaded spindle which offers a high 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.

Cars up to small trucks

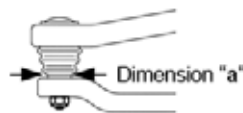
Patented



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.

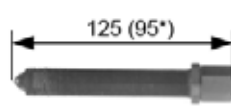


**Accessories:** Extended T-Adjusting Spindle and Pressing Spindle

**KL-0165-1013**  
T-Adjusting Spindle M18x1,5



**KL-0165-1014**  
Pressing Spindle M18x1,5



## 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
<b>KL-0165-1</b>	<b>Ball Joint Extractor Set</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
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
	<b>KL-0165-100</b>	<b>Base Tool without Fork</b>
<i>consists of:</i>		
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
<b>KL-0165-10</b>	<b>Ball Joint Extractor size 1</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-1001	Fork a=20 mm e=50 mm d=165 mm
<b>KL-0165-11</b>	<b>Ball Joint Extractor size 1</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-1101	Fork a=22 mm e=50 mm d=165 mm
<b>KL-0165-12</b>	<b>Ball Joint Extractor size 1</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-1201	Fork a=24 mm e=50 mm d=165 mm
<b>KL-0165-13</b>	<b>Ball Joint Extractor size 1</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-1301	Fork a=27 mm e=50 mm d=165 mm
<b>KL-0165-14</b>	<b>Ball Joint Extractor size 1</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-1401	Fork a=30 mm e=50 mm d=165 mm

## Ball Joint Extractor size 2

Part No.	Description
<b>KL-0165-20</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2001	Fork a=22 mm e=60 mm d=165 mm
<b>KL-0165-21</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2101	Fork a=24 mm e=60 mm d=165 mm
<b>KL-0165-22</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2201	Fork a=26 mm e=60 mm d=165 mm
<b>KL-0165-23</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2301	Fork a=30 mm e=60 mm d=165 mm
<b>KL-0165-24</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2401	Fork a=34 mm e=60 mm d=165 mm
<b>KL-0165-25</b>	<b>Ball Joint Extractor size. 2</b>
<i>consists of:</i>	
KL-0165-100	Base Tool without fork (Spindles with thread M18x1,5)
KL-0165-2501	Fork a=24 mm e=60 mm d=165 mm

KL-0165-3 A



## 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.
<b>KL-0165-3 A</b>	<b>Ball Joint Extractor Set</b>	<b>1</b>
<i>consists of:</i>		
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

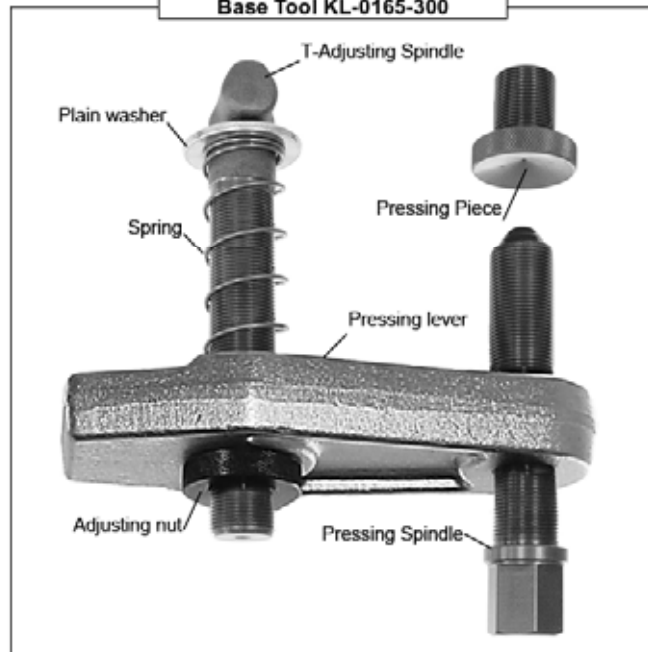
Part No.	Description
<b>KL-0165-300</b>	<b>Base Tool without fork</b>
<i>consists of:</i>	
KL-0165-3002	Pressing Lever
KL-0165-3013	T- Adjusting Spindle M24x1,5 x 180
KL-0165-3014	Pressing Spindle M24x1,5 x 135
KL-0165-3005	Ball socket
KL-0165-3006	Adjusting Nut M24x1,5
KL-0165-3007	Spring
KL-0165-3008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

KL-0165-300

Fork size 3



Base Tool KL-0165-300



### Ball Joint Extractor size 3 for trucks

Part No.	Description
<b>KL-0165-30</b>	<b>Ball Joint Extractor size 3</b> suitable e.g. for MAN and Landini-Tractors
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3001	Fork a=30 mm e=80 mm d=200 mm
<b>KL-0165-31</b>	<b>Ball Joint Extractor size 3</b> suitable e.g. for MAN, Mercedes etc.
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3101	Fork l a=34 mm e=80 mm d=200 mm
<b>KL-0165-32</b>	<b>Ball Joint Extractor size 3</b> suitable e.g. for Mercedes, MAN, Scania, Volvo, etc.
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3201	Fork a=40 mm e=80 mm d=200 mm
<b>KL-0165-33</b>	<b>Ball Joint Extractor size 3</b> suitable e.g. for Mercedes, MAN, Scania, Volvo, etc. and John Deere-Tractors.
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3301	Fork a=42 mm e=80 mm d=200 mm
<b>KL-0165-34</b>	<b>Ball Joint Extractor size 3</b> Suitable e.g. for Mercedes bus, etc.
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3401	Fork a=47 mm e=80 mm d=200 mm
<b>KL-0165-35</b>	<b>Ball Joint Extractor size 3</b> suitable e.g. for MB Sprinter '95 onwards, VW LT '98 onwards Ball Joint VW T4 Guide Joint etc.
<i>consists of:</i>	
KL-0165-300	Base Tool without fork (Spindles with thread M24x1,5)
KL-0165-3501	Fork a=30 mm e=80 mm d=200 mm

\* Values in brackets are for normal length components

2

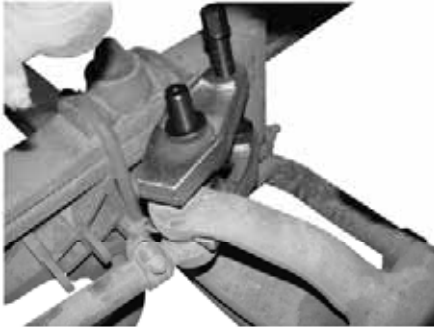
11  
HGV



### Application Examples:

#### KL-0165-31

e.g. suitable for Mercedes Atego, Actros, Axor steering arm



#### KL-0165-32

e.g. suitable for Mercedes-Bus

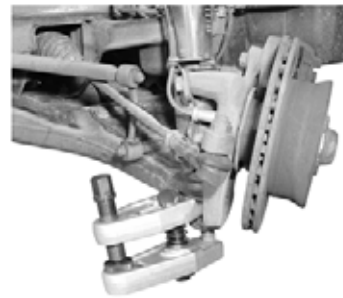


Suitable for Ball Joint Pivots



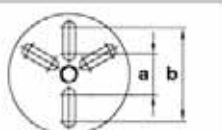
#### KL-0165-35

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 M24x1,5)
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 M24x1,5)
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 M24x1,5)
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.

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.

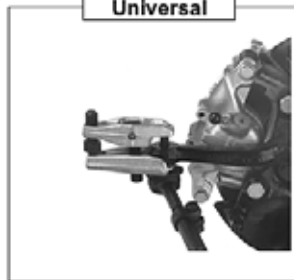
Adjusting Range:..... 40 - 88 mm      Screws:..... M10 x 60

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:

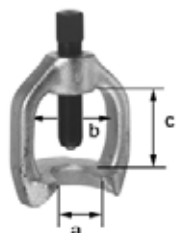
3 Fork heads with openings a = 17,5 mm, a = 23,5 mm und a = 28,5 mm, a 200 mm Handle and an Adaptor with 10 mm Ø Shaft and 175 mm Length, suitable for impact hammer.

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

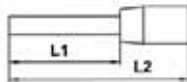
For splitting track-rod ends, anti-roll bar mountings, ball joints, etc.

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

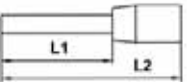




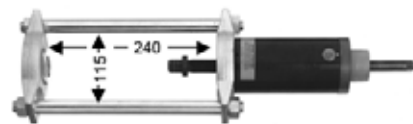
KL-4041-33..



KL-4045-33..



KL-0043-855 C



Mercedes  
Sprinter  
VW LT

KL-0043-8591 C



Ball Joint extraction.



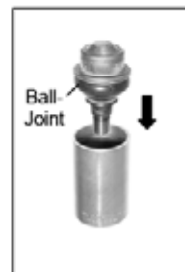
Ball Joint



Ball Joint insertion.



Ball Joint



## 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
<i>consists of:</i>		
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.

KL-0043-829



Opel/Vauxhall,  
Renault



KL-0043-8298



KL-0043-810



Opel/Vauxhall,  
Renault



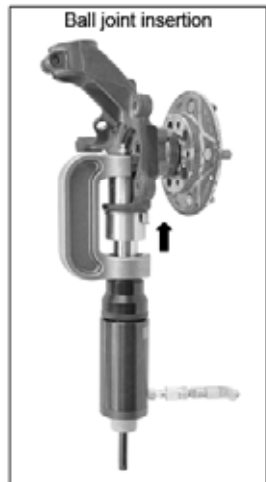
KL-0043-8101



KL-0626-10



Ford  
Transit



KL-0626-100



## 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	Pressing 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.

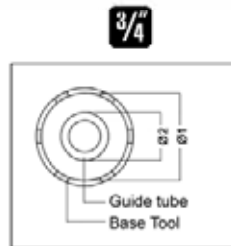
The support joint can be pressed out of or into the wheel bearing housing quickly and without difficulty, using Press Tool KL-0626-10. The support joint can be removed from or installed on the vehicle in just a few minutes, without the wheel bearing housing having to be removed.

### Specification

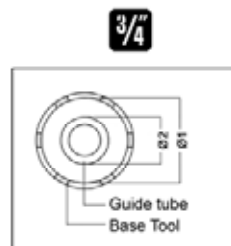
Pos.	Part No.	Description	Qty.
	KL-0626-10	Hydraulic Press Tool with Hydr. Cylinder	1
	consists of:		
	KL-0626-100	Hydraulic Press Tool without Hydr. Cylinder	1
8	KL-0040-2500	Hydraulic cylinder 17t	1
9	KL-0040-2510	Press spindle	1
	consists of:		
1	KL-0626-1001	Press Frame	1
2	KL-0626-1002	Coil screw	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



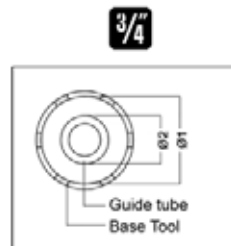
**KL-1020-10**



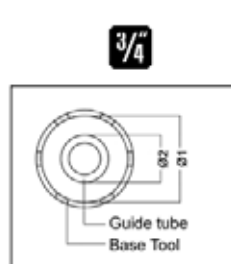
**KL-1020-11**



**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

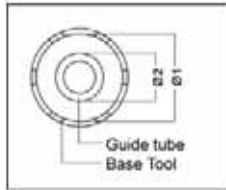
Connecting thread: ..... M36 x 1,5  
Weight: ..... 1,4 kg



## KL-1020-20



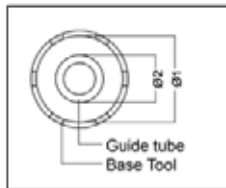
3/4"



## KL-1020-21



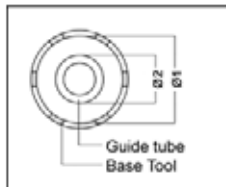
3/4"



## KL-1020-22



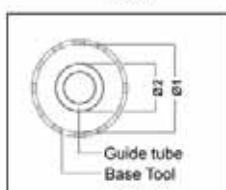
3/4"



## KL-1020-23



3/4"



## 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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

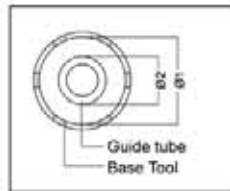
Connecting thread: ..... M48 x 1,5

Weight: ..... 4,8 kg

## KL-1020-24



3/4"



## 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

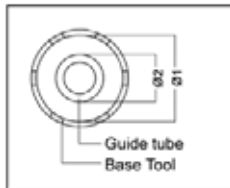
Connecting thread: ..... M48 x 1,5

Weight: ..... 3,2 kg

## KL-1020-310



3/4"



## KL-1020-310 Toothed Socket

Suitable for e.g Mercedes rear axles HL 2/43 DG - 6.2 (Atago)

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

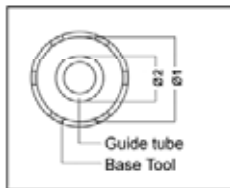
Connecting thread: ..... M56 x 1,5

Weight: ..... 2,0 kg

## KL-1020-31



3/4"



## 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

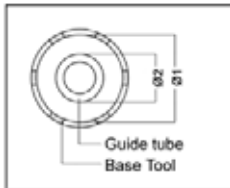
Connecting thread: ..... M56 x 1,5

Weight: ..... 2,9 kg

## KL-1020-32



3/4"



## 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

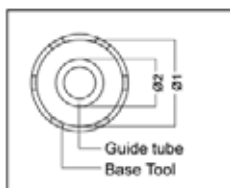
Connecting thread: ..... M56 x 1,5

Weight: ..... 3,1 kg

## KL-1020-33



3/4"



## 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

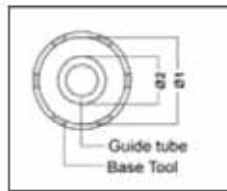
Connecting thread: ..... M56 x 1,5

Weight: ..... 3,3 kg

## KL-1020-34



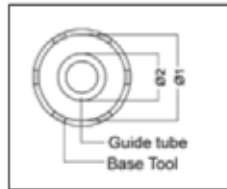
3/4"



## KL-1020-35



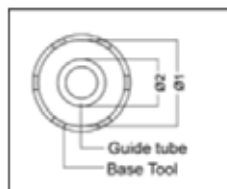
3/4"



## KL-1020-36



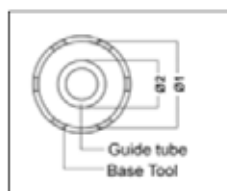
3/4"



## KL-1020-37



3/4"



## 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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 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		Qty.
					quantity	width	
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

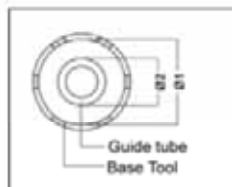
Weight: ..... 4,8 kg



## KL-1020-38



3/4"



## 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 width	Qty.
KL-1020-380	Base Tool	117		180	6 9,8	1
KL-1020-3911	Guide tube		60	195		1

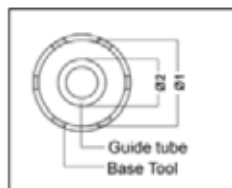
Connecting thread: ..... M56 x 1,5

Weight: ..... 6,8 kg

## KL-1020-39



3/4"



## 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 width	Qty.
KL-1020-390	Base Tool	110		75	6 10,5	1
KL-1020-3912	Guide tube		63	120		1

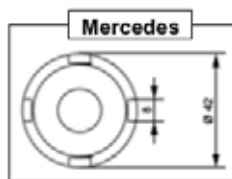
Connecting thread: ..... M56 x 1,5

Weight: ..... 3,3 kg

## KL-0303-12



3/4"



## 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)

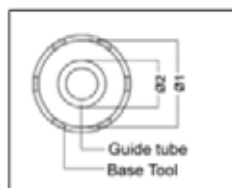
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity width	Qty.
KL-0303-12	Base Tool	36		45	4 8	1

Weight: ..... 330 g

## KL-1020-40



3/4"



## 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)

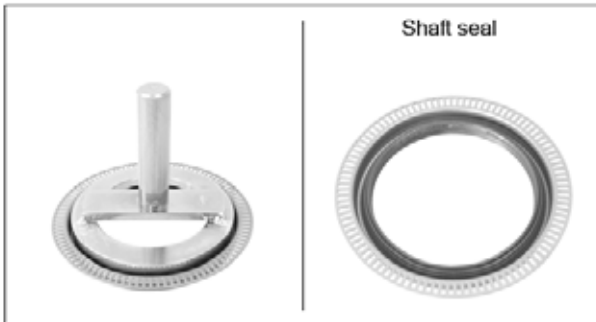
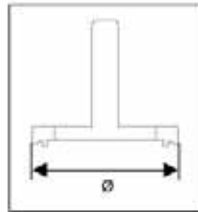
Part No.	Description	Ø 1 (mm)	Ø 2 (mm)	Length [mm]	Teeth quantity width	Qty.
KL-1020-400	Base Tool	101		98	6 7,5	1
KL-1020-3905	Guide tube		58	110		1

Connecting thread: ..... M56 x 1,5

Weight: ..... 3,2 kg

## KL-1025-Series

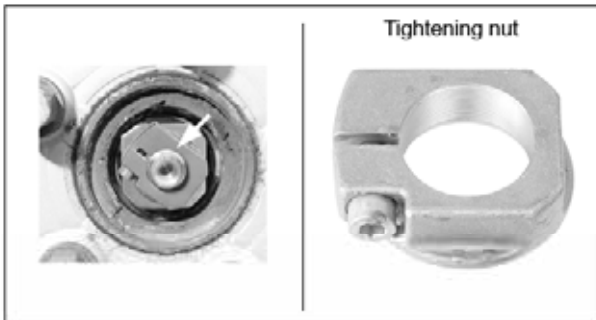
Mercedes



Shaft seal

## KL-1021-Series

Mercedes



Tightening nut

## 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	1/2"	Mercedes-small trucks Series 200 and 300
KL-1021-4150	41 x 50	1/2"	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	1/2"	MAN/VW "G"-Series, Axle V 7 - 26L - 36L, Types 8.136 and 8.150
KL-1021-5062	50 x 62	1/2"	Mercedes-Axle VL 2/11 as Type 814 (new small truck Series)
KL-1021-5468	54 x 68	1/2"	Mercedes, SETRA-BUS S 215 HDH up to 1990 and NEOPLAN-BUS up to 1990
KL-1021-5671	56 x 71	3/4"	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	3/4"	Mercedes SK-Front Axle VL 5/1 D-9, VL 5/2 -D-9 in Types 2629/ 6x4, 2635 K/8x4, 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"

## KL-1022-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



## KL-1021-11 Hub cap pliers

Allows easy removal of stuck Hub caps

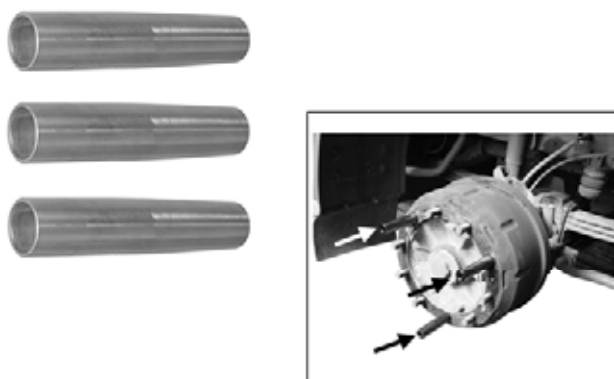
### Technical Data:

Hub cap-Ø: ..... 40-90 mm

Length: ..... 493 mm

Weight: ..... 1,2 kg

## KL-1028-Series



## 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





8573-00

**RAHSOL**  
**DREMOTEC**



1/2"

40-200 N-m

### 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

**RAHSOL**  
**DREMOTEC**



3/4"

140-760 N-m

### 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

**RAHSOL**  
**DREMOTEC**



3/4"

520-1000 N-m

### 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.

## KL-0100-Series



## 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.

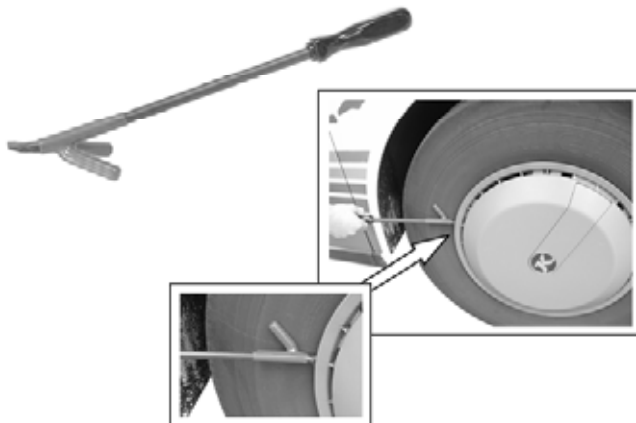
### Technical Data:

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



## 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



## 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



## KL-0049-303 Adaptor Set Fiat Ducato

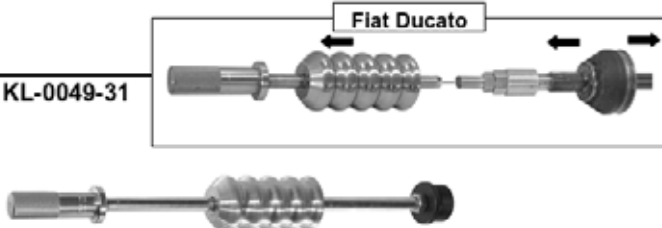
Suitable for Fiat Ducato.

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 / M26x1,5
KL-0049-3015	32	45	65	M18 / M33x1,5

## KL-0049-31



## KL-0049-31 Slide hammer

For Half-Shafts, Drive Shafts, Brake Discs and Brake drums, etc. inclusive Adaptor 2 1/4"-14UNS to M18 suitable for the KL-0174-Series.

Hammer weight:..... 4,8 kg      Length:..... 690 mm

### Examples of application:

Press out the drive-shaft with the mechanical spindle.



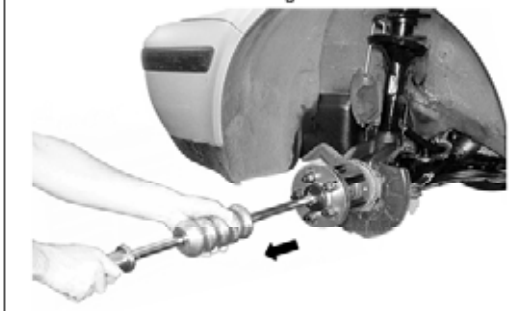
Press out the drive-shaft flange



Press out the drive-shaft using 17 ton Hydraulic Cylinder.



Remove the hub using a slide-hammer



### Wheel Hubs

Standard Hub,  
4 Wheel Bolts



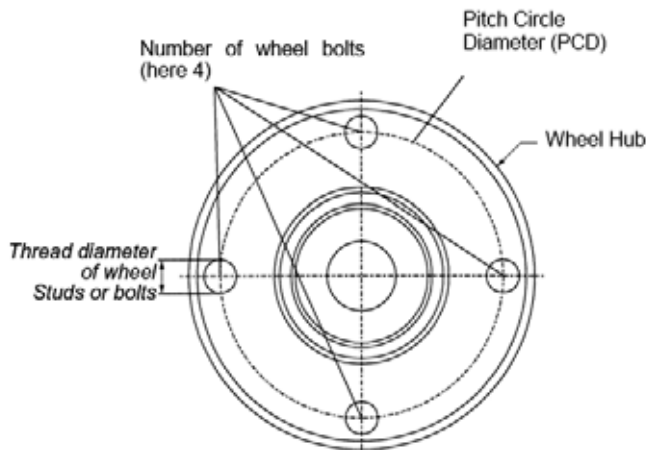
Standard Hub,  
5 Wheel nuts



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 see 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)

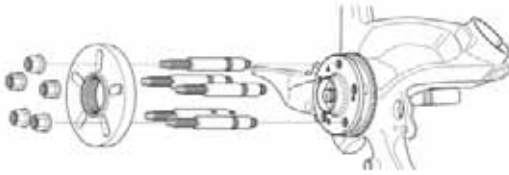
By using the slide hammer KL-0049-31 *wheel hubs, brake drums and half shafts can be removed directly in the vehicle.*

In order to select the correct puller, the following important data must be known:

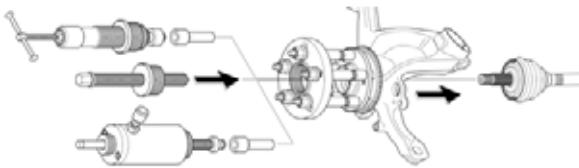
- PCD and number of studs (3, 4, 5 or 6).  
→ important to establish the correct plate size with the correct hole pattern
- Wheel Studs (type M) or Screws (type B) and thread diameters.  
→ important to select the puller bolts with inner or outer threads.
- What drive method is to be used, mechanical spindle, slide-hammer, Hydraulic spindle or Hydraulic Cylinder?  
→ important to establish the length of puller bolts required (see table).



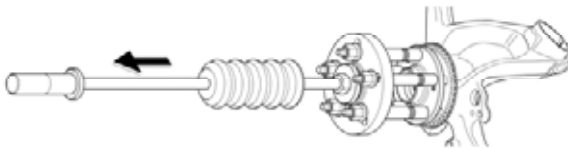
### 1. Assemble the puller:



### 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.

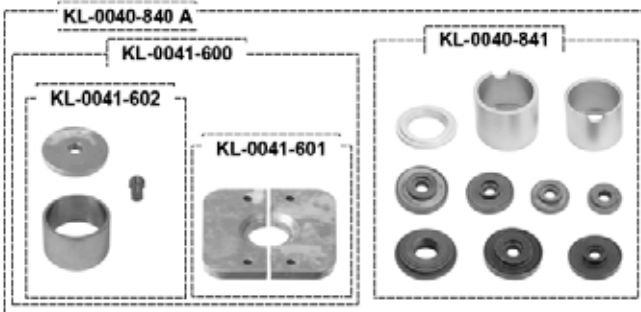
By using the Puller Set KL-0174-107 KA wheel hubs, brake drums and half shafts can be removed directly in the vehicle and rusted or glued with loctite drive shafts are pressed out.

Part No.	Description	Qty.
<b>KL-0174-107 KA</b>	<b>Universal Puller Set</b>	<b>1</b>
<i>bestehend aus:</i>		
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 2 3/4"-14UNS on 2 1/4"-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

KL-0040-84 A

Peugeot, Fiat



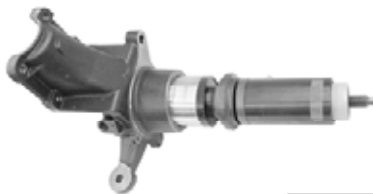
Wheel hub extraction



Wheel bearing extraction



Wheel hub pull in



Wheel bearing pull in



**Note:** To drive the hydraulic cylinder KL-0040-2500 a hydraulic pump (see chapter 4) is 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
<i>consists of:</i>		
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
<i>consists of:</i>		
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
<i>consists of:</i>		
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
<i>consists of:</i>		
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

KL-0040-80

Renault Master  
Opel Movano



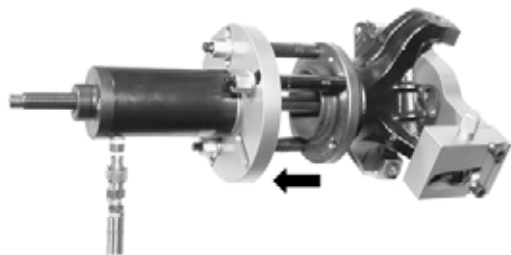
KL-0040-801



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

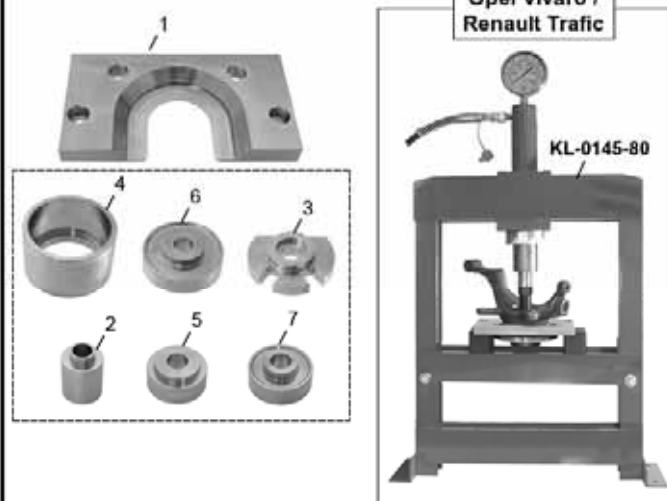
### Accessories:

#### KL-0040-8050 Wooden Storage Tray (empty)

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



KL-0430-1



## KL-0430-1 Wheel Bearing Tool Set

(German Utility Model)

Suitable for: Opel Vivaro / Renault Traffic 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.

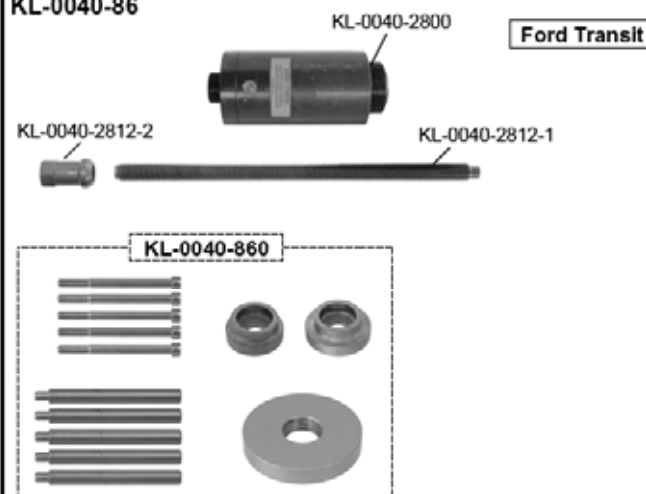
Advantages:

- 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
	<i>consists of:</i>		
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



## 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
<i>consists of:</i>		
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).

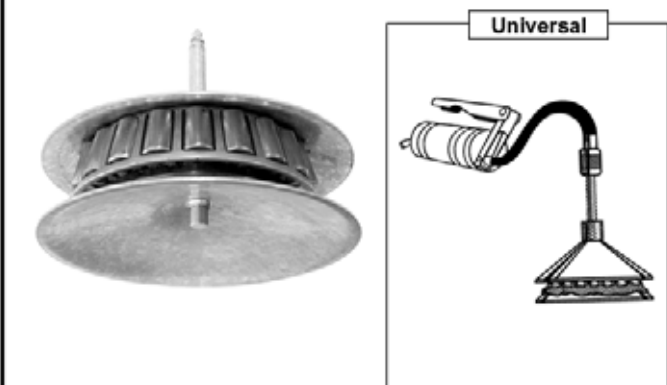
## KL-0179-12 Bearing Grease Arrangement

Fast, Efficient, Universal.

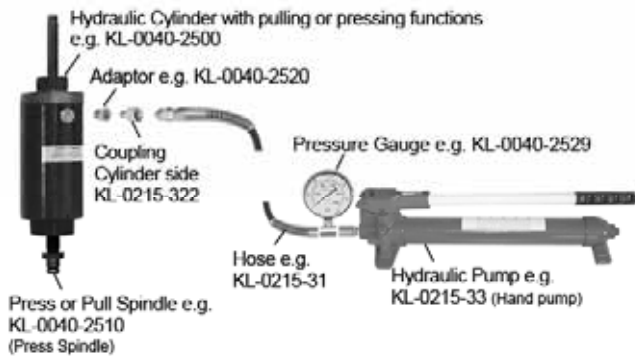
Simply place the bearing between the cones, tighten, and apply grease through the fitting on the end of the threaded

Cone-Ø: ..... 165 mm.

KL-0179-12



## 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 its 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 cm <sup>3</sup>
Piston Area:	27 cm <sup>2</sup>
Piston Thread:	M20
Retaining Thread Pressure Side:	2 1/4" 14 UNS
Retaining Thread Puller Side:	M42x2
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

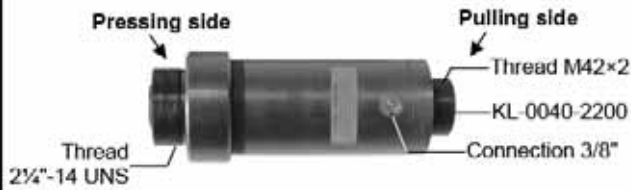
## KL-0040-25 Hydraulic Cylinder with Pull Spindle

For use with the KLANN wheel-bearing tool or the wheel-hub puller KL-0330.

consists of:

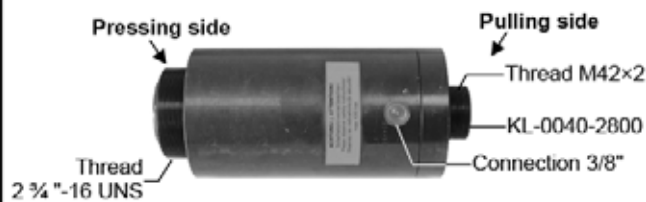
Part No.	Description
KL-0040-2500	Hydraulic Cylinder (17 t) without spindle
KL-0040-2512	Pull Spindle, length 435 mm

## 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



## Hydraulic Couplings



## KL-0040-2561



## Adaptor



## KL-0040-2200 Hydraulic Cylinder 10 t

Due to its 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 cm <sup>3</sup>
Piston Area:	15,11 cm <sup>2</sup>
Piston Thread:	M16xØ 16,5
Retaining Thread Pressure Side:	2 1/2"-14 UNS
Retaining Thread Puller Side:	M42x2
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 its 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 cm <sup>3</sup>
Piston Area:	40,6 cm <sup>2</sup>
Piston Thread:	M24
Retaining Thread Pressure Side:	2 3/4"-16 UNS
Retaining Thread Puller Side:	M42x2
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 to 1/4"NPT (eg. KLANN, Longus, Rodcraft)
KL-0040-2521	Adaptor 3/8"NPT to M16x1.5 (eg. Matra)
KL-0040-2522	Adaptor 3/8"NPT to M18x1.5 (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 Locited 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

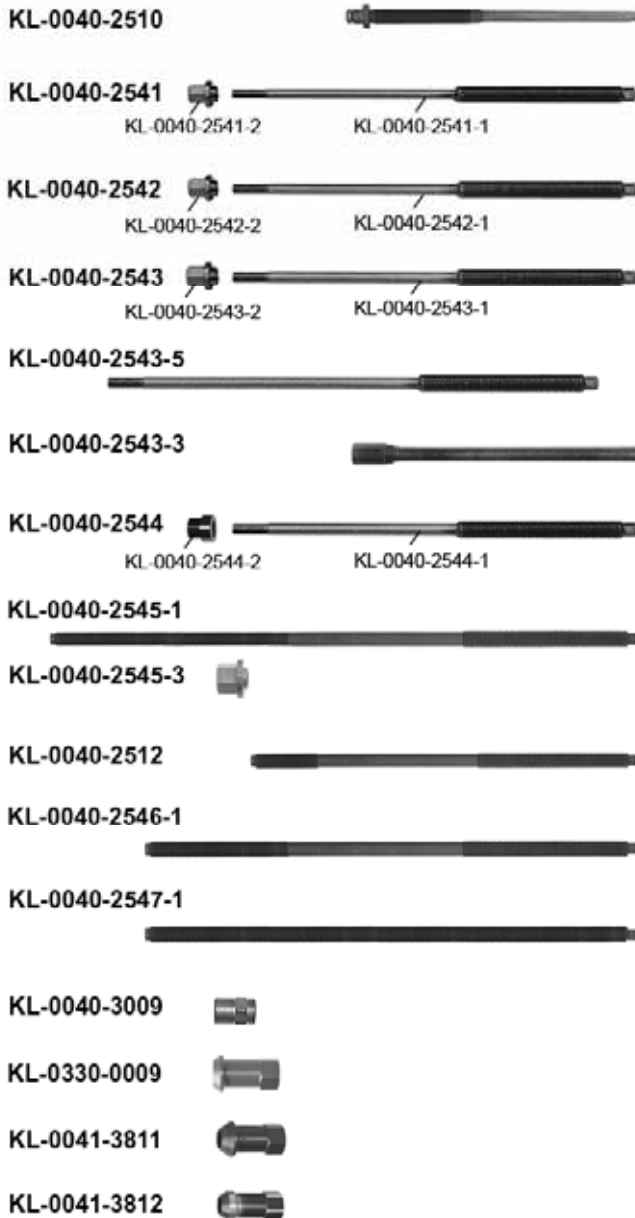
Required if the various Pressure Discs of the KLANN KL-0040-... Series Wheel Bearing Tool are to be used.

### KL-0174-559 Adaptor 2 1/4"-14UNS to 2 1/2"-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.

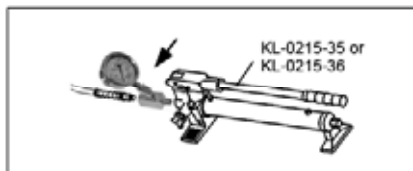


## Spindles and nuts



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

<b>KL-0040-2510 Press Spindle</b>	Length:.....350mm	Load max.....20 t
<b>KL-0040-2541 Pull Spindle M10x1,25, with Nut</b>	Length:.....470 mm	Load max.....5 t
<i>consists of:</i>		
KL-0040-2541-1 - Pull Spindle M10x1,25		
KL-0040-2541-2 - Nut M10x1,25		
<b>KL-0040-2542 Pull Spindle M12, with Nut</b>	Length:.....470 mm	Load max.....7 t
<i>consists of:</i>		
KL-0040-2542-1 - Pull Spindle M12		
KL-0040-2542-2 - Nut M12		
<b>KL-0040-2543 Pull Spindle M14, with Nut</b>	Length:.....470 mm	Load max.....9 t
<i>consists of:</i>		
KL-0040-2543-1 - Pull Spindle M14		
KL-0040-2543-2 - Nut M14		
<b>KL-0040-2543-5 Pull Spindle M14</b>	Length:.....550 mm	Load max.....9 t
<b>KL-0040-2543-3 Pull Spindle extension M14</b>	Length:.....345 mm	Load max.....9 t
<b>KL-0040-2544 Pull Spindle M16, with Nut</b>	Length:.....470 mm	Load max.....13 t
<i>consists of:</i>		
KL-0040-2544-1 - Pull Spindle M16		
KL-0040-2544-2 - Nut M16		
<b>KL-0040-2545-1 Pull Spindle M18</b>	Length:.....650 mm	Load max.....16 t
<b>KL-0040-2545-3 Nut M18</b>		
<b>KL-0040-2512 Pull Spindle M20</b>	Length:.....465 mm	Load max.....20 t
<b>KL-0040-2546-1 Pull Spindle M20</b>	Length:.....550 mm	Load max.....20 t
<b>KL-0040-2547-1 Pull Spindle M20</b>	Length:.....550 mm	Load max.....20 t
<b>KL-0040-3009 Hex Nut M20</b>		
<b>KL-0330-0009 Tension Nut (for Wheel Hubs) M20</b>		
<b>KL-0041-3811 Hex Nut Ø 38 mm</b>		
<b>KL-0041-3812 Hex Nut Ø 30 mm</b>		

### 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.

### Spindles and nuts

KL-0040-2241



KL-0040-2242

KL-0039-1916-2

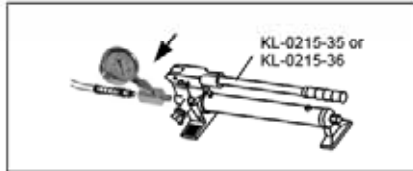
KL-0040-2242-1



KL-0040-2229



1/4"



KL-0040-2290



### Spindles and Nuts

KL-0040-2810



KL-0040-2812

KL-0040-2812-2

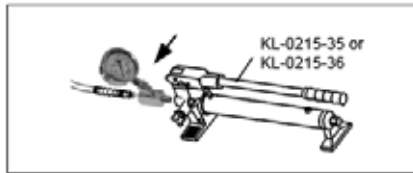
KL-0040-2812-1



KL-0040-2829



1/4"



KL-0040-2890



### Accessories for

#### KL-0040-2200 Hydraulic-Cylinder (10 t.)

### Spindles

KL-0040-2241 Press Spindle

Length:..... 350 mm Load<sub>max</sub>..... 13 t.

KL-0040-2242 Pull Spindle M16 x 590 with nut

Length:..... 590 mm Load<sub>max</sub>..... 13 t.

consists of:

KL-0040-2242-1 - Pull spindle M16 x 590

KL-0039-1918-2 - 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<sub>max</sub>..... 28 t.

KL-0040-2812 Pull Spindle M24 x 590 with nut

Length:..... 590 mm Load<sub>max</sub>..... 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.

## 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 L) 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 l.).

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 connector 1/4"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 l.) 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 l.).

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 connector 1/4"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 L) KL-0040-2500 and 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 l.).

### 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 connector 1/4"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.





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

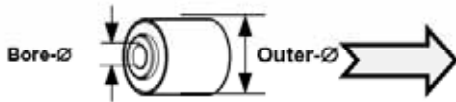


### Application example: *Bush extraction / insertion by using a Puller Spindle.*

**1. Configuration of the required pieces and tool assembling:**

Measure bush-Ø, identify spindle, pressure and support sleeve. (See table page 11.4-07)

Measure bearing-Ø and bore-Ø.



Identify support sleeve  
(with outer-Ø measure)



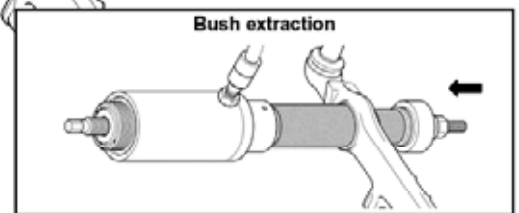
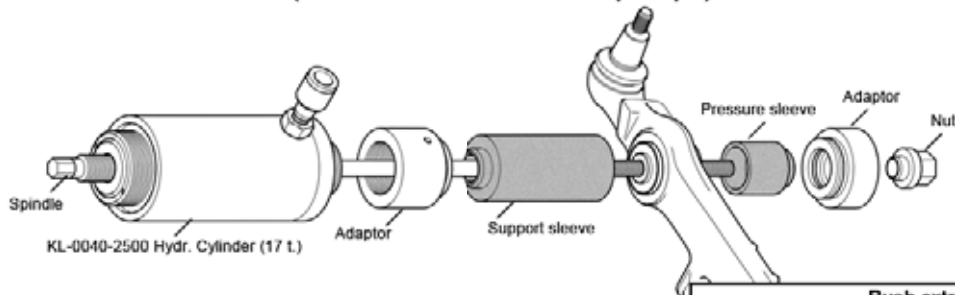
(Support sleeve-Ø = BushA-Ø + approx. 10%)

Identify pressure sleeve  
(with outer-Ø measure)



(Pressure sleeves o.-Ø = Bush o.-Ø)

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

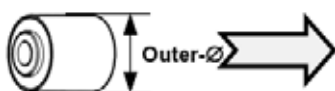


### Application example: *Ball Joint / Bush extraction / insertion with Press Frame.*

**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)

Measure bearing-Ø.

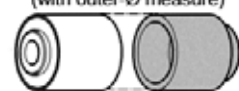


Identify support sleeve  
(with outer-Ø measure)



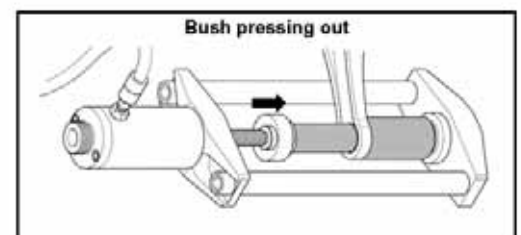
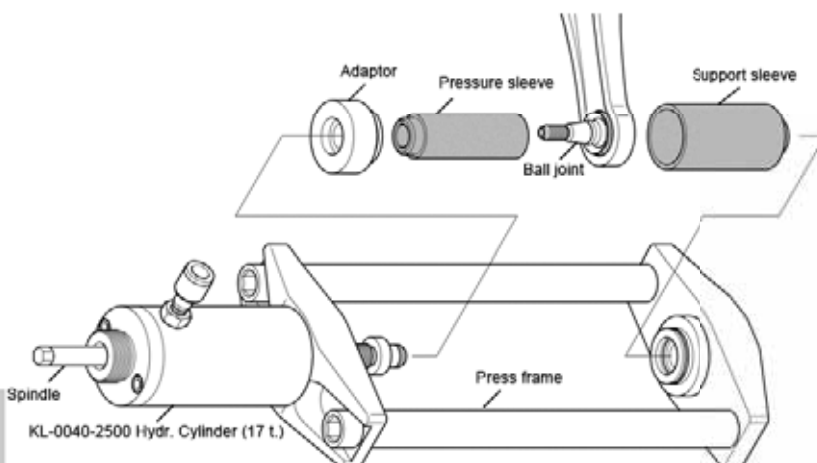
(Support sleeve l.-Ø = Bush o.-Ø + approx. 10%)

Identify pressure sleeve  
(with outer-Ø measure)



(Pressure sleeve o.-Ø = Bush o.-Ø)

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

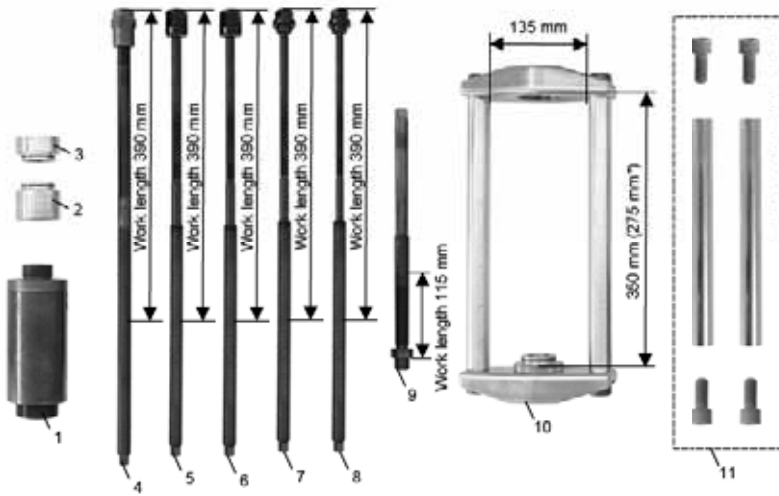


**Note:** The hydraulic cylinder KL-0040-2500 shall be operated by a hydraulic pump. See page 11.4-05.

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11  
HGV

## KL-0039-Series Wheel Bearing / Bush Tool



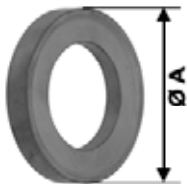
### Drive and base parts

Pos.	Part No.	Description	Qty.
<b>Cylinder:</b>			
1	KL-0040-2500	Hydraulic-cylinder 17 l	1
<b>Adaptor:</b>			
2	KL-0039-1003	Retain adaptor for hydraulic cylinder	1
3	KL-0039-1002	Retain adaptor for Nut M20	1
<b>Spindles</b>			
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
<b>Press frame:</b>			
10	KL-0039-1130	Press frame	1
<b>Accessory:</b>			
11	KL-0039-111	Frame rods 285 mm long	1

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

### Application parts ⇒ Wheel bearing

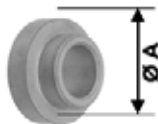
#### Pressure ring:



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

Part No.	Description	Ø A	Part No.	Description	Ø A	Part No.	Description	Ø A
KL-0039-1254	Pressure ring Ø54	Ø54	KL-0039-1270	Pressure ring Ø70	Ø70	KL-0039-1281	Pressure ring Ø81	Ø81
KL-0039-1260	Pressure ring Ø60	Ø60	KL-0039-1271	Pressure ring Ø71	Ø71	KL-0039-1282	Pressure ring Ø82	Ø82
KL-0039-1261	Pressure ring Ø61	Ø61	KL-0039-1272	Pressure ring Ø72	Ø72	KL-0039-1283	Pressure ring Ø83	Ø83
KL-0039-1262	Pressure ring Ø62	Ø62	KL-0039-1273	Pressure ring Ø73	Ø73	KL-0039-1284	Pressure ring Ø84	Ø84
KL-0039-1263	Pressure ring Ø63	Ø63	KL-0039-1274	Pressure ring Ø74	Ø74	KL-0039-1285	Pressure ring Ø85	Ø85
KL-0039-1264	Pressure ring Ø64	Ø64	KL-0039-1275	Pressure ring Ø75	Ø75	KL-0039-1286	Pressure ring Ø86	Ø86
KL-0039-1265	Pressure ring Ø65	Ø65	KL-0039-1276	Pressure ring Ø76	Ø76	KL-0039-1287	Pressure ring Ø87	Ø87
KL-0039-1266	Pressure ring Ø66	Ø66	KL-0039-1277	Pressure ring Ø77	Ø77	KL-0039-1288	Pressure ring Ø88	Ø88
KL-0039-1267	Pressure ring Ø67	Ø67	KL-0039-1278	Pressure ring Ø78	Ø78	KL-0039-1289	Pressure ring Ø89	Ø89
KL-0039-1268	Pressure ring Ø68	Ø68	KL-0039-1279	Pressure ring Ø79	Ø79	KL-0039-1290	Pressure ring Ø90	Ø90
KL-0039-1269	Pressure ring Ø69	Ø69	KL-0039-1280	Pressure ring Ø80	Ø80			
<b>Accessory:</b>								
KL-0039-1602	Pressure ring Ø93	Ø93						

#### Centring ring:



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

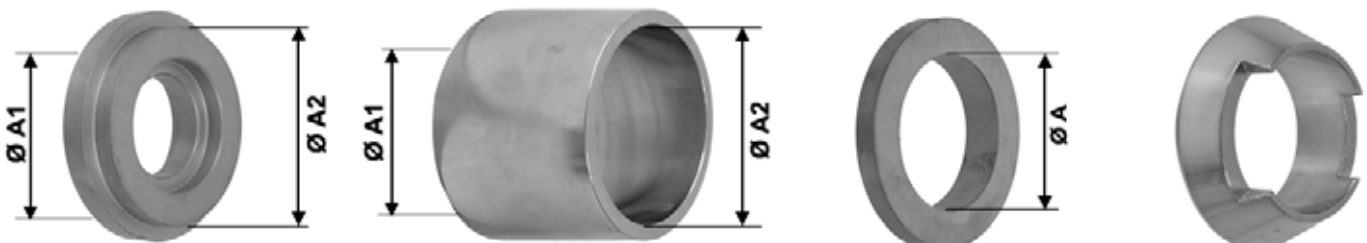
Part No.	Description	Ø A	Part No.	Description	Ø A	Part No.	Description	Ø A
KL-0039-1326	Centring ring Ø26	Ø26	KL-0039-1337	Centring ring Ø37	Ø37	KL-0039-1349	Centring ring Ø49	Ø49
KL-0039-1326	Centring ring Ø26	Ø26	KL-0039-1338	Centring ring Ø38	Ø38	KL-0039-1350	Centring ring Ø50	Ø50
KL-0039-1327	Centring ring Ø27	Ø27	KL-0039-1339	Centring ring Ø39	Ø39	KL-0039-1361	Centring ring Ø61	Ø61
KL-0039-1328	Centring ring Ø28	Ø28	KL-0039-1340	Centring ring Ø40	Ø40	KL-0039-1362	Centring ring Ø62	Ø62
KL-0039-1329	Centring ring Ø29	Ø29	KL-0039-1341	Centring ring Ø41	Ø41	KL-0039-1363	Centring ring Ø63	Ø63
KL-0039-1330	Centring ring Ø30	Ø30	KL-0039-1342	Centring ring Ø42	Ø42	KL-0039-1364	Centring ring Ø64	Ø64
KL-0039-1331	Centring ring Ø31	Ø31	KL-0039-1343	Centring ring Ø43	Ø43	KL-0039-1365	Centring ring Ø65	Ø65
KL-0039-1332	Centring ring Ø32	Ø32	KL-0039-1344	Centring ring Ø44	Ø44	KL-0039-1366	Centring ring Ø66	Ø66
KL-0039-1333	Centring ring Ø33	Ø33	KL-0039-1345	Centring ring Ø45	Ø45	KL-0039-1367	Centring ring Ø67	Ø67
KL-0039-1334	Centring ring Ø34	Ø34	KL-0039-1346	Centring ring Ø46	Ø46	KL-0039-1368	Centring ring Ø68	Ø68
KL-0039-1335	Centring ring Ø35	Ø35	KL-0039-1347	Centring ring Ø47	Ø47	KL-0039-1369	Centring ring Ø69	Ø69
KL-0039-1336	Centring ring Ø36	Ø36	KL-0039-1348	Centring ring Ø48	Ø48	KL-0039-1370	Centring ring Ø70	Ø70

#### 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



## KL-0043-829

Opel/Vauxhall,  
Renault



## 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

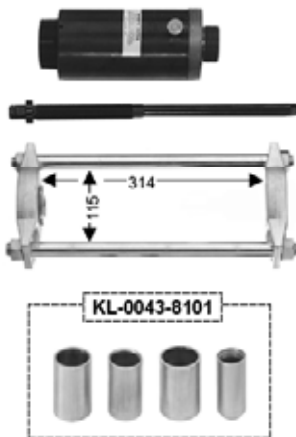
## KL-0043-8298 Press/Support Tube Set

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

Opel/Vauxhall,  
Renault



## 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

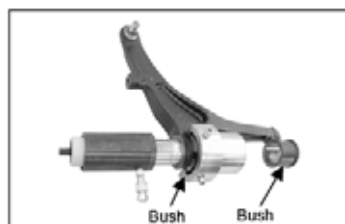
## KL-0043-8101 Press/Support Tube Set

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

Opel/Vauxhall,  
Renault



## 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 Hydraulic cylinder 17 t.
KL-0040-2552	Adaptor M42x2 / Ø30		

## 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:

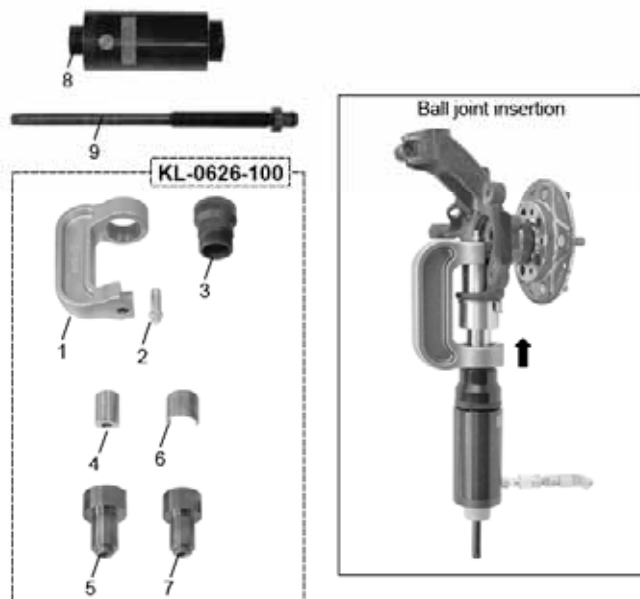
Part No.	Description	Part No.	Description
KL-1210-2001	Support tube	KL-1210-2004	Pressure piece
KL-1210-2002	Pressure piece	KL-1210-2005	Pressure piece
KL-1210-2003	Support tube		

**Note:** A hydraulic pump will be required to drive the Hydraulic Cylinder KL-0040-2500.



KL-0626-10

Ford  
Transit



## 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.

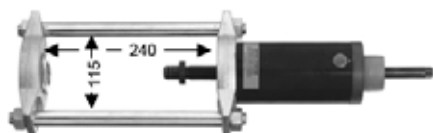
### Specification

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

Mercedes Sprinter  
VW LT



KL-0043-8591 C



**Note:** A hydraulic pump will be required to drive the Hydraulic Cylinder KL-0040-2500.

## 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:

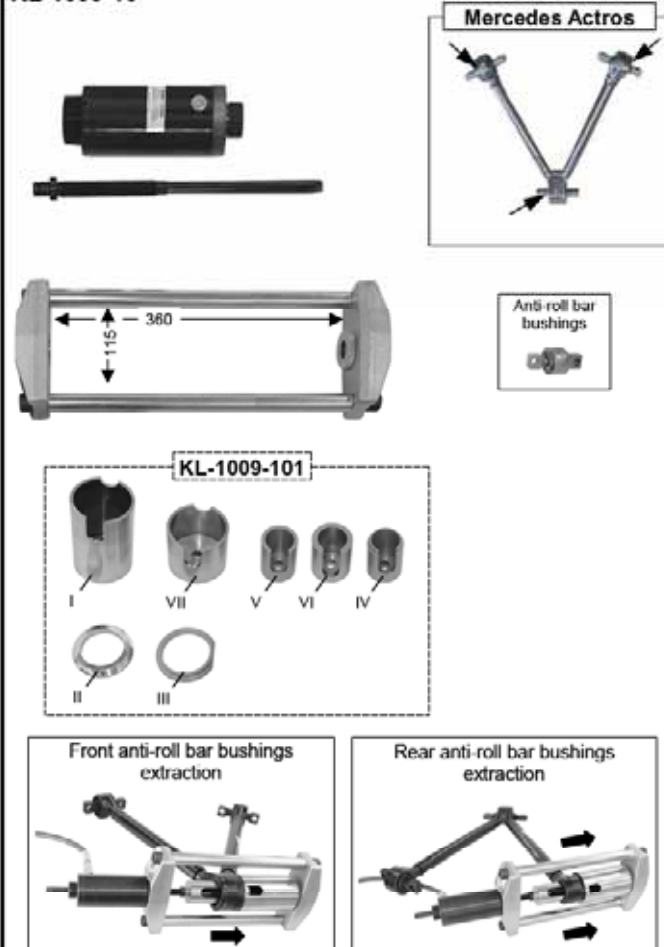
- High time savings
- Easy to operate.
- Tool cannot tilt to one side.
- Avoid mishances.
- Hydraulic Cylinder 17 to. KL-0040-2500 is all-purpose also with other KLANN-tools useable.

### 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

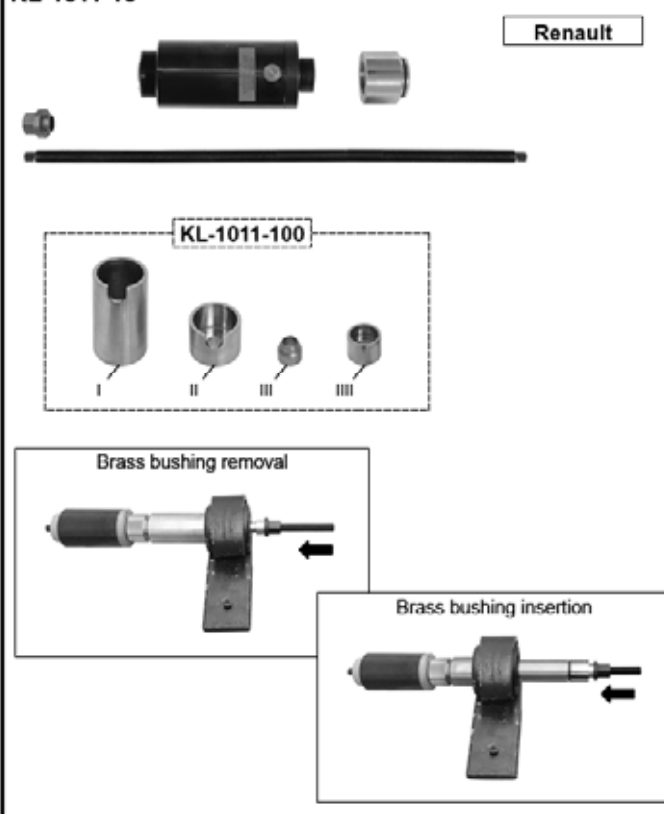
Part No.	Description	Qty.
KL-0043-8591 C	Press/ support sleeve set	1
consists of:		
KL-0043-8236-1	Support sleeve (I)	1
KL-0043-8236-2	Support sleeve (II)	1
KL-0043-8236-3	Clamping plates (III)	1
KL-0043-8236-4	Cylinder screw (IV)	3
KL-0043-8236-5	Distance tube (V)	1
KL-0043-8531	Press sleeve (VI)	1
KL-0043-8279	Press sleeve (VII)	1
KL-0043-8578	Press/support sleeve (VIII)	1

## KL-1009-10



**Note:** A hydraulic pump will be required to drive the Hydraulic Cylinder KL-0040-2500.

## KL-1011-10



## 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
<i>consists of:</i>		
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
<i>consists of:</i>		
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:

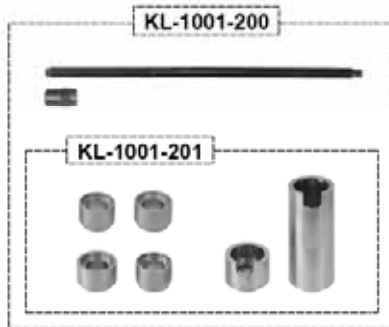
Part No.	Description	Qty.
KL-1011-10	Bush Extractor with Hydraulic Cylinder	1
<i>consists of:</i>		
KL-0040-2500	Hydraulic cylinder 17t	1
KL-0039-1003	Retain adaptor for hydraulic cylinder with O-ring	1
KL-0040-2545-1	Puller spindle M18	1
KL-0040-2545-3	Nut M18	1
KL-1011-100	Sleeve set	1

Part No.	Description	Qty.
KL-1011-100	Sleeve Set	1
<i>consists of:</i>		
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

## KL-1001-20



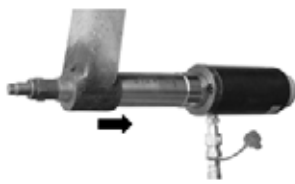
HGV  
Trailer



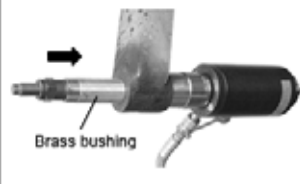
Brass bushing



Brass bushing removal



Brass bushing insertion



## KL-1001-10



HGV  
Bushes  
Bore-Ø 68

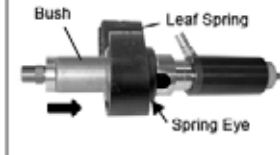


ROR, SAF, Trailer

Bush extraction



Bush insertion



### Accessory:

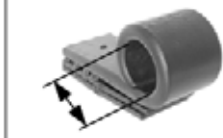
KL-1001-1013



KL-0040-9005



Bore-Ø



Solid Bush



## 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 Trailer 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.

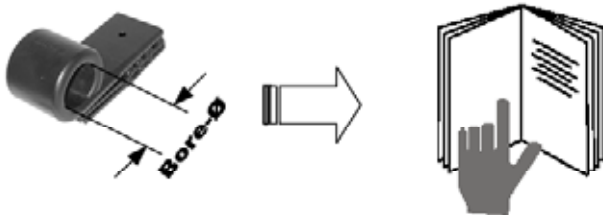


## Bush Extractor KL-1010-Series



### Application example / procedure:

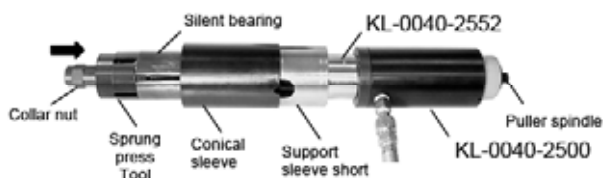
1. Verify bore diameter and choose tool from the table (see page 11.4-13).



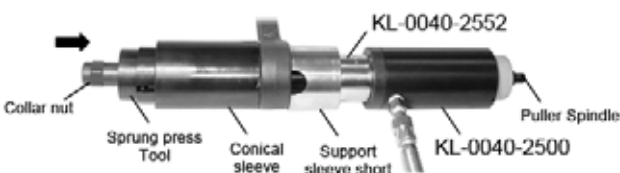
2. Bearing extraction



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  $\varnothing$  and relative drive set. A great advantage of this system is that for further  $\varnothing$  or application ranges a small number of new components is necessary. ( $\Rightarrow$  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- $\varnothing$  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

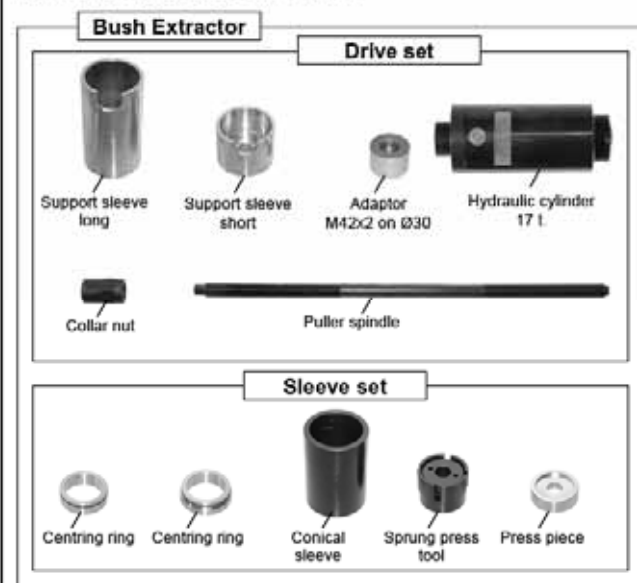
$\Rightarrow$  new silentbloc pre-tensioning:

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.

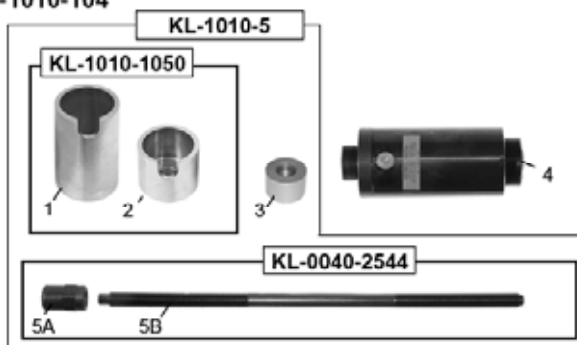
## Bush Extractor KL-1010-Series



### Drive Sets:

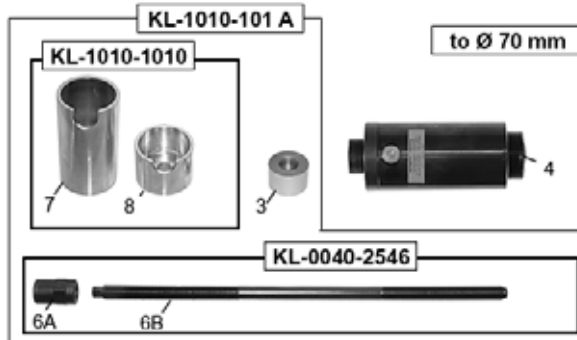
#### KL-1010-104

to Ø 50 mm



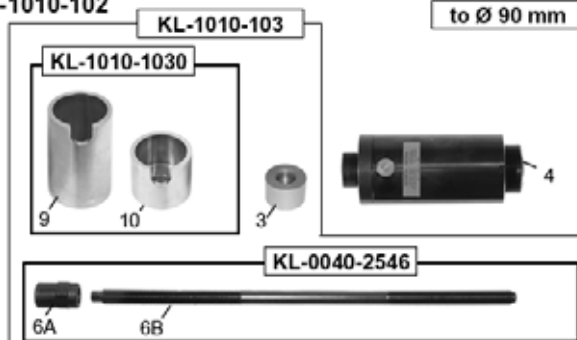
#### KL-1010-100 A

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 40 mm) e.g. MAN buses (articulated bus 313/3) Front axle stabilizer	KL-1010-104	KL-1010-180
Ø 48 mm (disassembled Ø 50 mm) e.g. MAN buses (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 (12L), L90 (13L), M34 (14L), M78 (18t) Front spring bracket - back	KL-1010-100 A	KL-1010-110
Ø 59 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 stabilizer	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 buses O405, O408, Citaro.	KL-1010-102	KL-1010-160

## KL-1010-104 Drive Sets for Bushes to Ø 50mm (with Hydraulic Cylinder)

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 l. (without coupling)	1
	KL-1010-104	Drive Set (without Hydraulic Cyl.)	1

Pos.	Part No.	Description	Qty.
	KL-0040-2544	Puller Spindle M16 with Nut	1
3	KL-0040-2552	Adaptor M4x2 on Ø30	1
	KL-1010-1050	Drive Sleeve Set	1

Pos.	Part No.	Description	Qty.
5B	KL-0040-2544.1	Puller Spindle M16	1
5A	KL-0040-2544.2	Nut	1

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)

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 l. (without coupling)	1
	KL-1010-101 A	Drive Set without Hydraulic Cyl.	1

Pos.	Part No.	Description	Qty.
	KL-0040-2546	Puller Spindle M20x550 with Nut	1
3	KL-0040-2552	Adaptor M4x2 on Ø30	1
	KL-1010-1010	Drive Sleeve Set	1

Pos.	Part No.	Description	Qty.
6B	KL-0040-2546.1	Puller Spindle M20x550	1
6A	KL-0040-3009	Nut	1

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)

Pos.	Part No.	Description	Qty.
4	KL-0040-2500	Hydraulic cylinder 17 l. (without coupling)	1
	KL-1010-103	Drive Set (without Hydraulic Cyl.)	1

Pos.	Part No.	Description	Qty.
	KL-0040-2546	Puller Spindle M20x550 with Nut	1
3	KL-0040-2552	Adaptor M4x2 on Ø30	1
	KL-1010-1030	Drive Sleeve Set	1

Pos.	Part No.	Description	Qty.
6B	KL-0040-2546.1	Puller Spindle M20x550	1
6A	KL-0040-3009	Nut	1

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

KL-0043-900



## 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
<i>consists of:</i>	
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	2 1/4" 14UNS
Total width	220 mm	Cylinder	
Working width	160 mm	Adaptor	2 1/4" 14UNS to Ø 30 mm
Depth	100 mm	Weight	14,2 kg

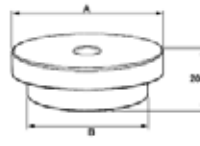
KL-0159-12



### Application



### Dimensions



## 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.

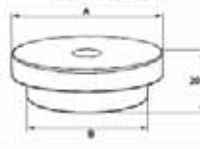
KL-0159-11



### Application



### Dimensions



## 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.



KL-0140-36

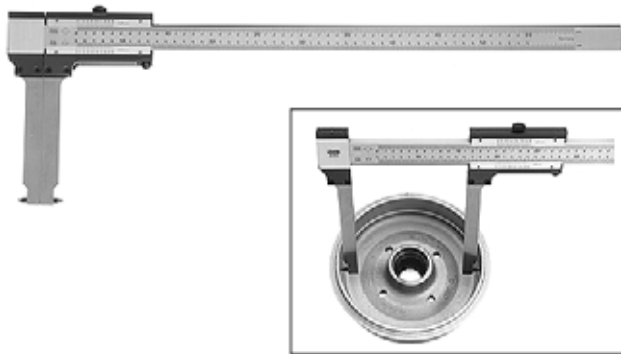


## KL-0140-36 Slide Caliper Digital

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

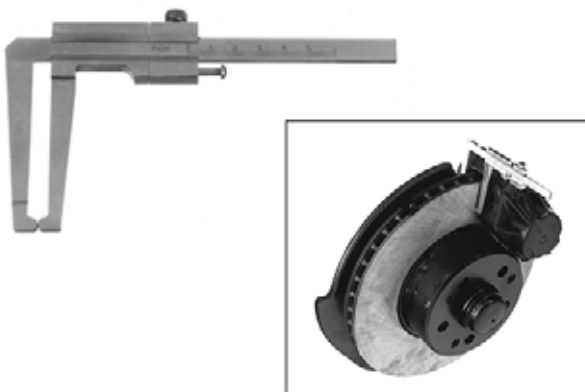
Measuring-surfaces stainless steel, rule and slide produced of aluminium-profile, open slide, fixing-screw, vernier parallax free reading.

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



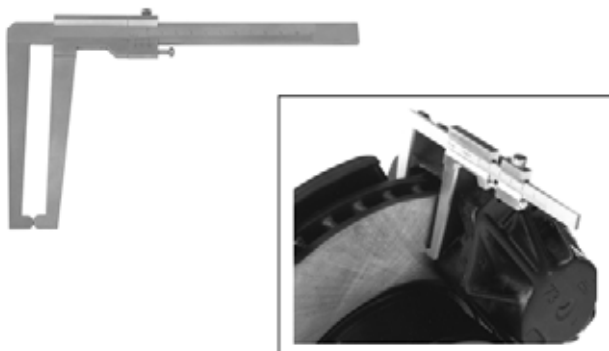
## KL-0140-33 Slide Caliper for Brake Disc

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.

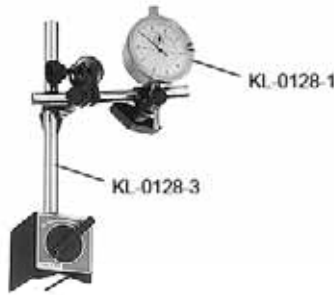
Description: stainless steel.

Range: ..... 100 mm  
Jaw length ..... 120 mm  
Vernier: ..... 1/10 mm  
Weight: ..... 240 g

5

11  
HGV

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



HGV

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

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

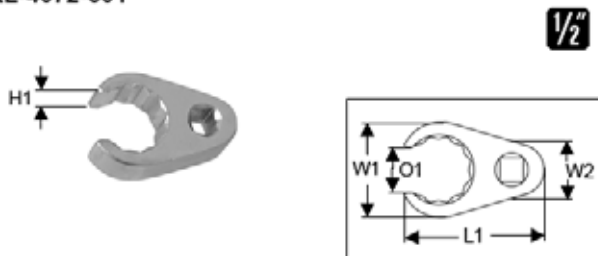


## KL-0114-81 Brass-Wire Brush (narrow)

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.

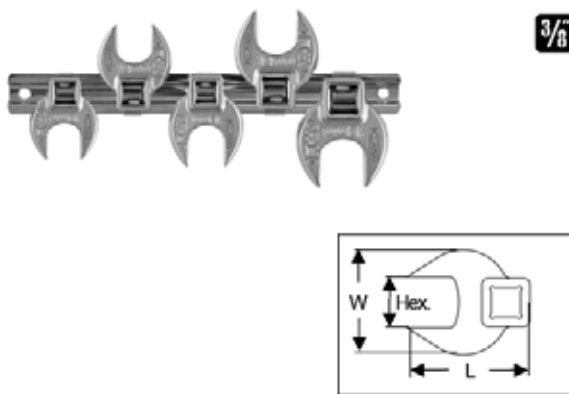
Drive: ..... 1/2" □

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.

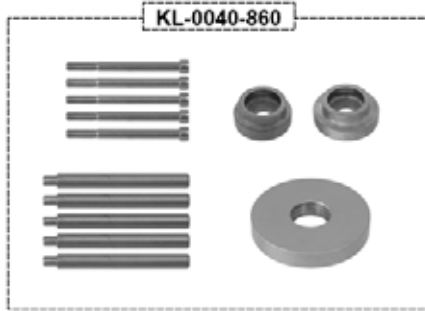
consists of:

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



KL-0040-86

Ford Transit



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.
<b>KL-0040-86</b>	<b>Wheel Bearing Puller (with Hydraulic Cyl.)</b>	<b>1</b>
<i>consists of:</i>		
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.
<b>KL-0040-860</b>	<b>Wheel Bearing Set (without Hydraulic Cylinder)</b>	<b>1</b>
<i>consists of:</i>		
KL-0040-8501	Pressure ring	1
KL-0040-8238-4	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.
<b>KL-0215-36 M28</b>	<b>Air Driven Hydraulic Pump</b>	<b>1</b>
<i>consists of:</i>		
KL-0215-380	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 1/4"NPT	1
KL-0040-2829	Pressure gauge	1

## 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	Part No.	Description
KL-0124-600	Pump	KL-0124-625	Adaptor Nr.25 M52x4
KL-0124-601	Flexible Tube	KL-0124-626	Adaptor Nr.26 jap. Vehicles
KL-0124-620	Adaptor Nr.20 universal Bayonet Joint Ø 60	KL-0124-627	Adaptor No. 27 M54x4
KL-0124-621	Adaptor No.21 M48x3	KL-0124-633	Adaptor No.33 S48x3
KL-0124-622	Adaptor No.22 M44x3	KL-0124-634	Adaptor No.34 Tr63x3
KL-0124-624	Adaptor No.24 M52x3	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
Renault	HGV, Actros	KL-0124-628	28
	HGV Midliner	KL-0124-639	39
Scania	HGV Premium, HGV Magnum	KL-0124-640	40
	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
Volvo	General	KL-0124-620	20
	General	KL-0124-631	31
	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.



KL-0121-22



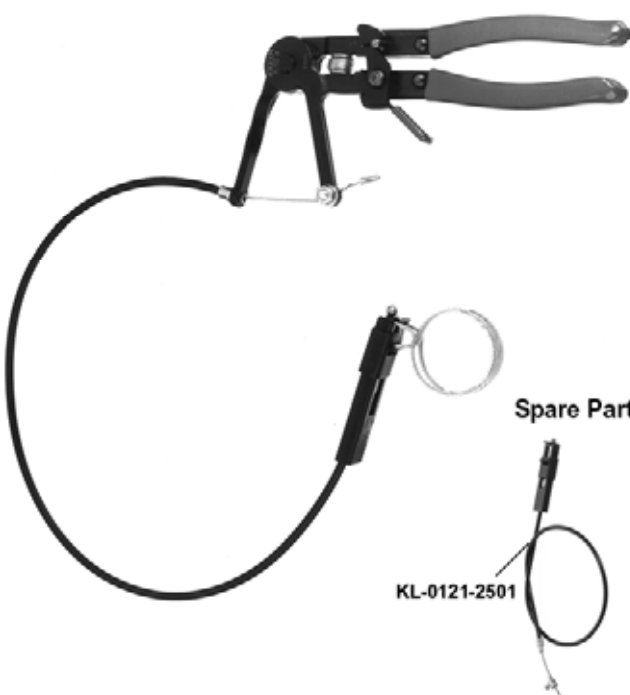
KL-0121-23



KL-0121-24



KL-0121-25



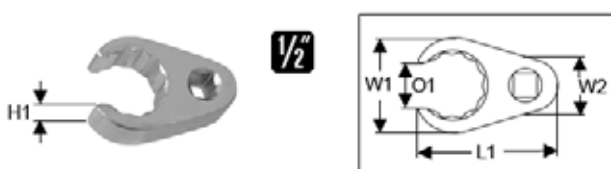
Spare Part:

KL-0121-2501

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	85 mm	25 mm	39 mm	31 mm	18 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



KL-4072-321



1/2"



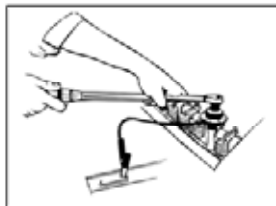
KL-4071-311



1/2" 3/8"

KL-4090-302

1/2"



KL-4046-362



1/2"



BMW, Mercedes



KL-4041-4520

MAN



3/4"



KL-4046-3520

MAN



1/2"



## 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. Commonly 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

## 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



1/4"

Five point

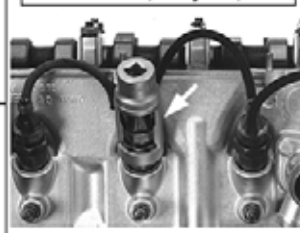
## KL-0369-10



## KL-0511-1



BMW, Mercedes, VW,  
Alfa Romeo, Chrysler, etc.



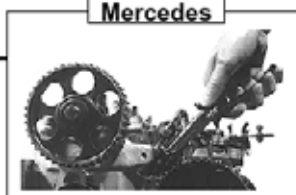
## KL-0511-2



## 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: ..... 1/2"

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: ..... 1/2"

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.

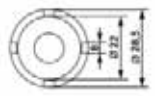


KL-0369-6



1/2"

Mercedes



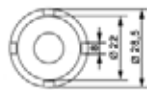
KL-0369-601



KL-0369-602



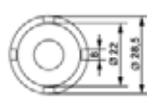
MAN, Neoplan,  
Setra



KL-0369-603



MAN, Mercedes



KL-0057-1



Mercedes



KL-0369-3



KL-0049-25



KL-0049-200



KL-0049-2008



KL-0369-4

Mercedes



KL-0369-11



1/2"

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: ..... 1/2"

## 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: ..... 1/2"

## 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 M22x1 and M22x1,5) **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:

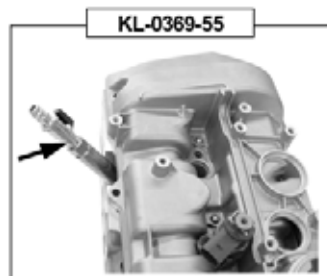
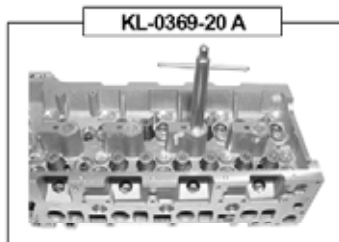
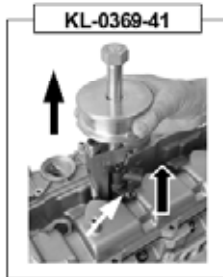
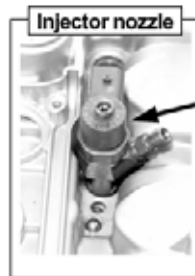
Part No.	Description	Part No.	Description
KL-0369-1101	Housing	KL-0369-1105	Washer
KL-0369-1102	Spindle (Drive 1/2" <input type="checkbox"/> )	KL-0369-1106	Circip
KL-0369-1103	Reamer Ø33 mm	KL-0369-1107	Protection Sleeve
KL-0369-1104	Screw M8 x 20		

**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.



KL-0369-45 K

Mercedes CDI  
OM 611, 612, 613



## 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
<i>consists of:</i>		
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)

KL-0369-41



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



Mercedes

## KL-0369-45 Injector nozzle puller with spindle (German Utility Model)

Applicable for Mercedes CDI engines OM 611, 612, 613, etc.

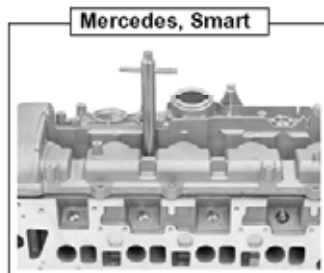
With the KL-0369-45 injection nozzle puller with spindle, injection nozzles that fit *very tightly* can be pulled out without needing to remove the cylinder block.

⇒ **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



Mercedes, Smart

## KL-0369-20 A Milling tool for mounting hole and injector nozzle seat

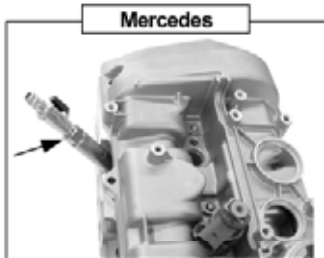
Applicable for Mercedes CDI engines OM611, 612, 613 and Smart R660.

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



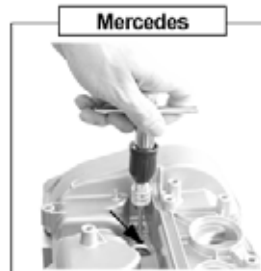
Mercedes

## 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 adaptor 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



Mercedes

## 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

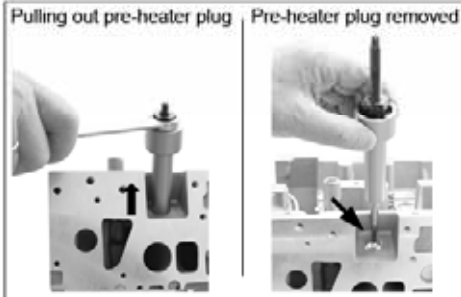
6

11  
HGV

## KL-0369-201 A



Mercedes



## 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



Mercedes CDI, Opel CDTI, Fiat/Lancia JTD



## 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



Opel CDTI, Fiat JTD

## 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



## 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



## 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



## 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



## 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



KL-0369-15



Mercedes



KL-0369-13



## 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

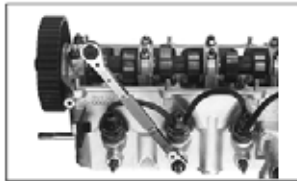
To ream out and clean the bore between the Glow Plug and pre-combustion chamber.

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 (8 / 12 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



## KL-0127-2206 Last Tap

For cleaning of plug threads size M10x1,0 and M12x1,25.

KL-0132-3



## KL-0132-3 Last Tap

For cleaning of plug threads size M12x1,25 and M14x1,25.

KL-0127-2207



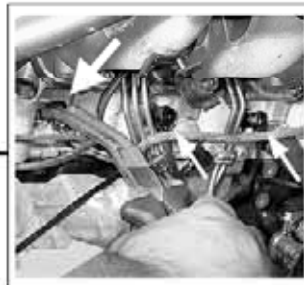
## KL-0127-2207 Last Tap

For cleaning of spark plug threads size M14x1,25 and M18x1,5.

KL-0369-18



VW-Audi, BMW, Mercedes



## 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



VW-Audi, BMW, Mercedes

## KL-0369-19 Glow-Plug Connector Pliers angled

As KL-0369-18 (Version angled at 90°)

## KL-0369-30 K

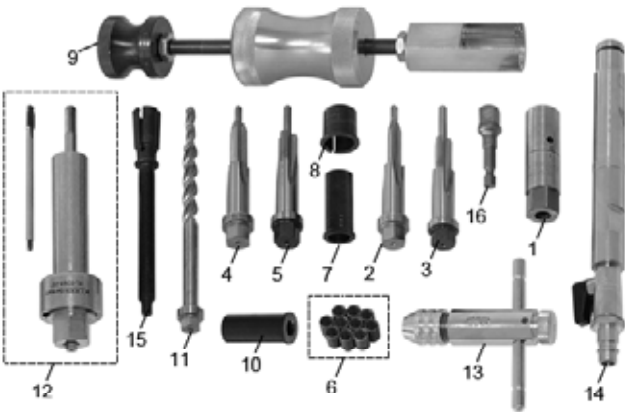
Mercedes

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 combustion 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.

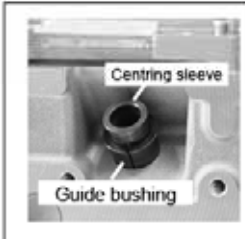
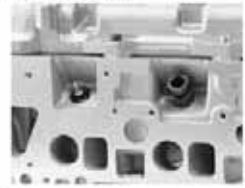
Weight ..... 3,3 kg

### 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



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.



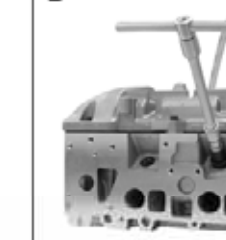
Pull out the preheat plug tube with the puller.



Clean the glow plug mounting bore and sealing seat "A"



"B"



Screw threaded sleeve on to glow plug.



Install preheat plug with threaded sleeve.

Glow plug with the 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.

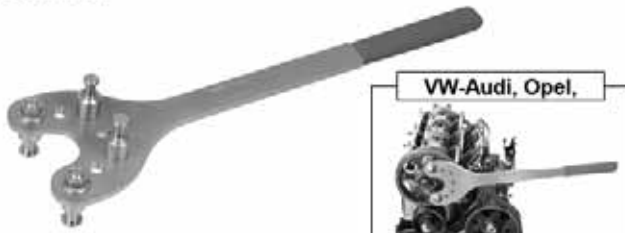
⇒ *Renewing glow plug mounting thread in cylinder head (M10x1 to M12x1).*

- 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 combustion chamber.



KL-0282-31



VW-Audi, Opel,



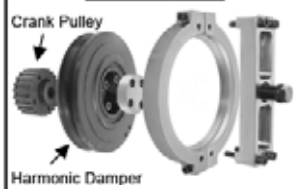
KL-0282-35



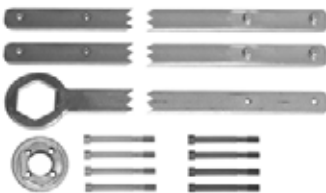
KL-0282-51



VW T4, LT



KL-0284-61



VW-Audi



KL-0284-62



VW-Audi



KL-0280-94



VW- Audi



## 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 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 (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.

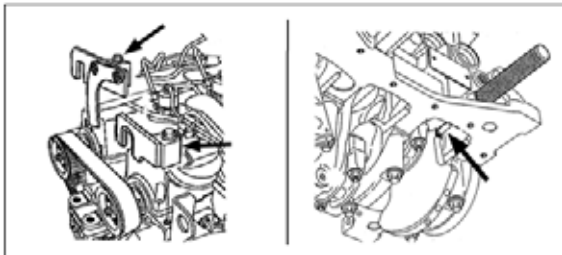
Necessary while renewing Timing Belts or during engine repairs.

Weight: ..... 680 g

## KL-1280-24 K

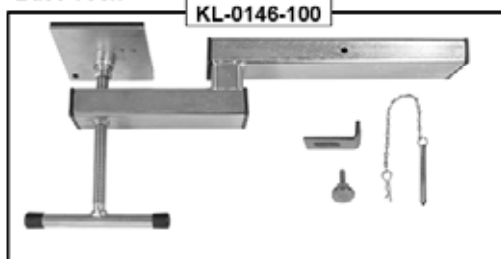


Opel, Renault,  
Nissan



## KL-0146-... Series

Base Tool:



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
<i>consists of:</i>		
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

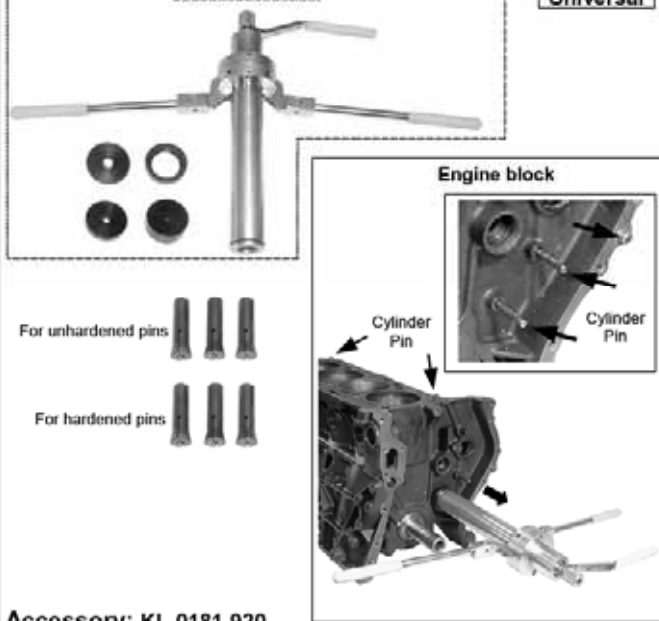
Weight: ..... 6,8 kg



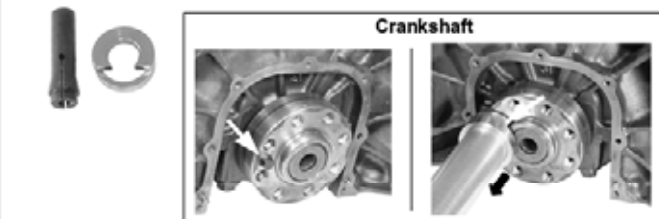
KL-0181-90

KL-0181-900

Universal

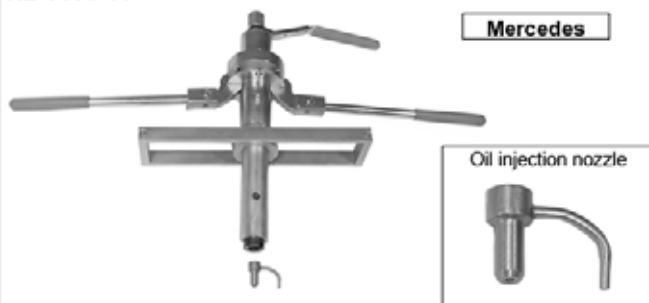


Accessory: KL-0181-920

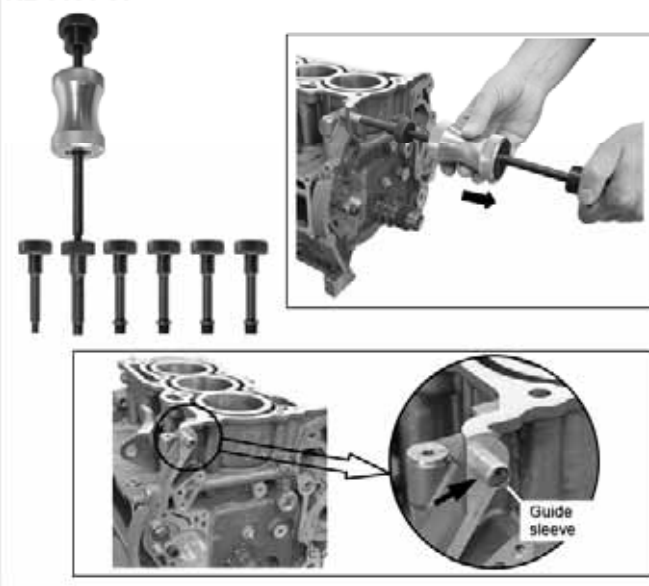


KL-0181-93

Mercedes



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



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 work 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 Actros engines,  
MAN HGV with 5-, 6- and 8-Cylinder engines.

KL-0362-7



Mercedes  
Actros

1/2"

## 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 Drive: .....1/2"□

Weight: ..... 450 g

KL-0122-911



MAN  
Mercedes

1/2"

## 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 Drive: .....1/2"□

Hex: ..... 27 mm

KL-0122-51



Mercedes

1/2"



## 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:.....1/2"□ 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 1/2" drive or 3/4" wrench. Strong nylon belt.

Drive:.....1/2" □ Weight:..... 280 g

6

11  
HGV

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.

KL-0145-30



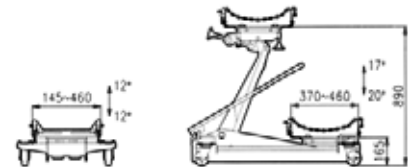
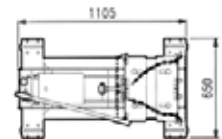
## KL-0145-30 Transmission Lift

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

Fiat



Clutch shaft extraction



## 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



Pull-action clutch



Removing releaser bearing



## 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	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)



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.

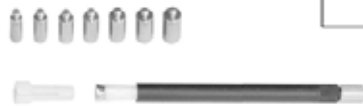
**Specification:** (Single tools see page 7-03)

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

## KL-0500-401



## KL-0500-402

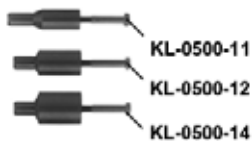


## KL-0500-403



## KL-0500-404

BMW



## 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.

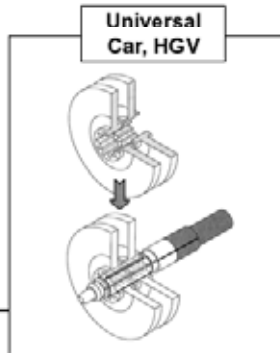
KL-0069-7



KL-0069-7 R



KL-0069-60 K



KL-0069-6



KL-0069-67 K



## 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
<i>consists of:</i>	
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)
<i>consists of:</i>	
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
<i>consists of:</i>	
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.

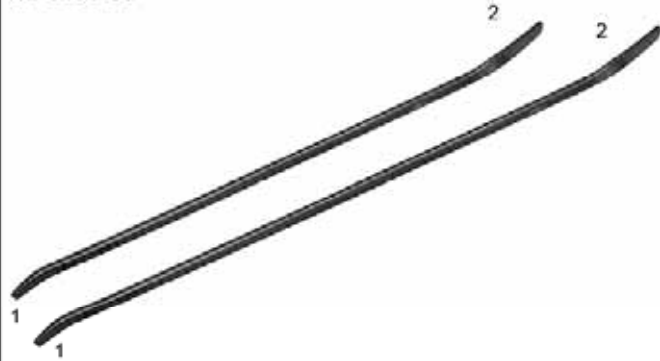
## KL-0069-67 K Clutch Aligner Set

Suitable for Transporter and small lorries with single disc and double disc clutch (Universal).

Part No.	Description
KL-0069-67 K	Clutch Aligner Set
<i>consists of:</i>	
KL-0069-6	Clutch Aligner for Trucks
KL-0069-7	Clutch Aligner for Transporter
KL-0069-6090	Plastic Case (empty)



KL-0193-95



## 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



## 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



## KL-0193-90 Pry Bar Set

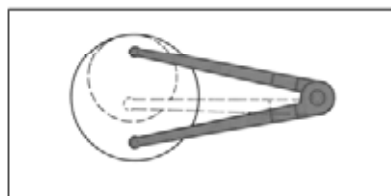
Set consists of four hard wearing pry bars applicable for a number of different jobs.

- 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, riveted or welded.

KL-0149-111 - KL-0149-143



## Pin Spanner, adjustable

For twin-hole nuts, with riveted or welded pins (not replaceable).

Special steel, gunmetal finish.

Part No.						
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			

KL-0149-211 - KL-0149-223



For twin-hole nuts, with inter-changeable pins.

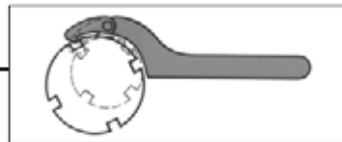
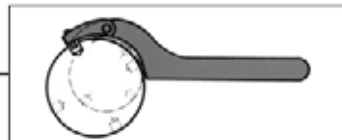
Special steel, gunmetal finish.

Part No.						
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			

**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.						
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	1750
KL-0149-342		10	10			

For twin-hole nuts, with inter-changeable pins

Part-No.						
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	1750
KL-0149-442		10	10			

## Spanners Special steel, gunmetal finish

For Castellated Nuts DIN 1816

Part-No.						
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.					
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	1200
KL-0148-252		10	10		

For Castellated DIN 1804, Jointed

Part No.				
KL-0148-511	20-35	135	9	50
KL-0148-512	35-60	175	10,5	100
KL-0148-513	60-90	250	12,5	280
KL-0148-514	90-155	290	14	460
KL-0148-515	155-230	420	17,5	1200

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
<i>consists of:</i>		
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 <sub>max.</sub>	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:

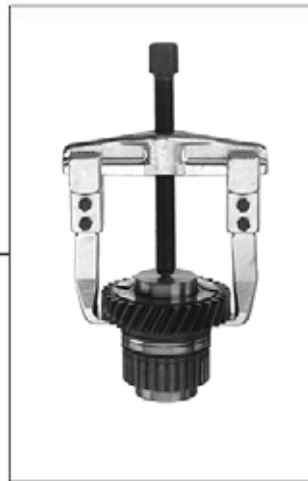
Part-No.	Description	Qty.
KL-0152-91 K	Puller Set 2- / 3-Arm	1
<i>consists of:</i>		
KL-0150-0001	Twin-Arm Yoke	1
KL-0151-0001	Triple-Arm Yoke	1
KL-0152-0002	Spindle M14x1,5 x 140 with centre point	1
KL-0152-1203	Clamps - middle	3
KL-0152-1103	Clamps - long	3
KL-0152-0005	Fast-clamp lever with pulling 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 <sub>max.</sub>	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



## KL-0150-Serie

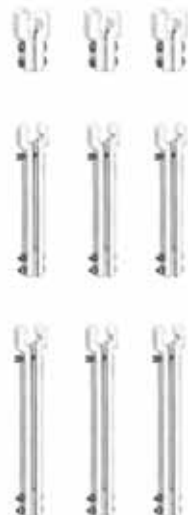


## KL-0150-6



## 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 <sub>max</sub>	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	
<i>consists of:</i>		
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 <sub>max</sub>	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	
<i>consists of:</i>		
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.

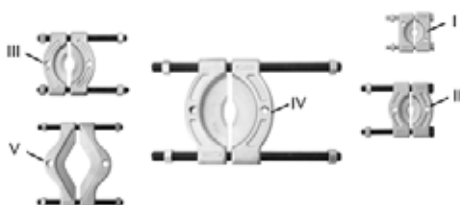
### Technical Data:

Part-No.	↔ [mm]	∅ [mm]	Load <sub>max</sub>	Weight [kg]
KL-0151-9	135	100 / 200 / 250	2 t.	4,8

KL-0172-50 K



Separator



## 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 $\leftrightarrow$ [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



## KL-0155-39 Drive shaft bearing puller

Especially for dismounting and mounting drive-shaft bearings.

Technical Data:

Part-No.	$\leftrightarrow$ [mm]	$\updownarrow$ [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



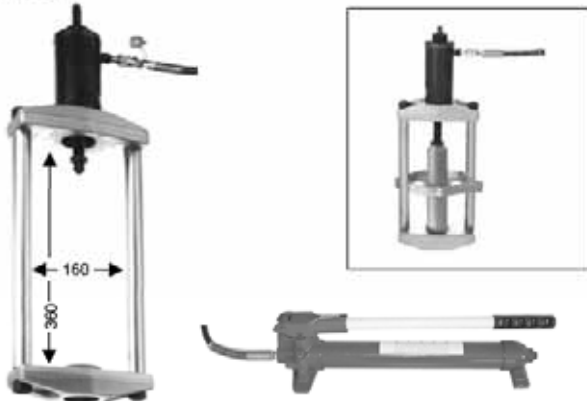
## KL-0175-60 Pilot Bearing Extractor Set

For removal of Pilot Bearings, Bushes etc. from blind housings.

Contents:

Part-No.	Description	for $\varnothing$ [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-0043-900



## 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	2 1/4"-14UNS
Total width	220 mm	Cylinder	
Working width	160 mm	Adaptor	2 1/2"-14UNS to Ø 30 mm
Depth	100 mm	weight	14,2 kg

KL-0159-11



### Application



## 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:

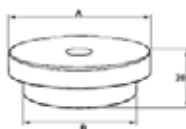
### KL-0159-12 Pressure Piece Set

Mounting Bore 20 mm  
consists of:

KL-0159-12

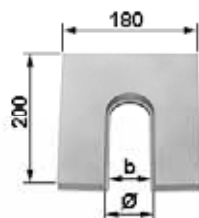
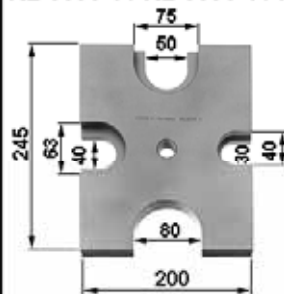


### Dimensions

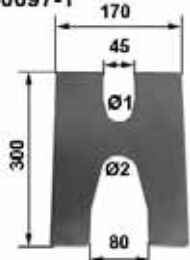


Part No.	A [mm]	B [mm]	Part No.	A [mm]	B [mm]
KL-0159-1101	22	20	KL-0159-1201	52	50
KL-0159-1102	24	22	KL-0159-1202	54	52
KL-0159-1103	26	24	KL-0159-1203	56	54
KL-0159-1104	28	26	KL-0159-1204	58	56
KL-0159-1105	30	28	KL-0159-1205	60	58
KL-0159-1106	32	30	KL-0159-1206	62	60
KL-0159-1107	34	32	KL-0159-1207	64	62
KL-0159-1108	36	34	KL-0159-1208	66	64
KL-0159-1109	38	36	KL-0159-1209	68	66
KL-0159-1110	40	38	KL-0159-1210	70	68
KL-0159-1111	42	40	KL-0159-1211	72	70
KL-0159-1112	44	42	KL-0159-1212	74	72
KL-0159-1113	46	44	KL-0159-1213	76	74
KL-0159-1114	48	46	KL-0159-1214	78	76
KL-0159-1115	50	48	KL-0159-1215	80	78
KL-0159-1120		Pilot Ø10	KL-0159-1220		Pilot Ø20
KL-0159-1121		Blank Ø10	KL-0159-1221		Blank Ø20
KL-0159-1122		Case	KL-0159-1222		Case

KL-0095-1 / KL-0096-1 / KL-0096-2 / KL-0096-3 / KL-0096-4



KL-0097-1



## 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.



## KL-0194-130

KL-0194-13



KL-0194-14



KL-0194-15



KL-0194-16



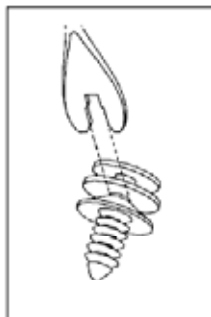
## KL-0194-130 Set of plastic wedges (4 pcs.)

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	<b>Set of plastic wedges</b>		<b>250</b>
<i>consists of:</i>			
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

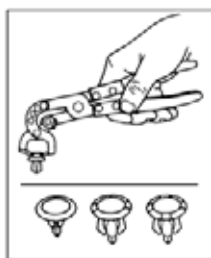


## KL-0190-10 Trim Pry

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).

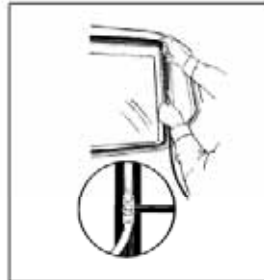
Size: ..... 220 x 115 x 33 mm

Weight: ..... 500 g

### Contents:

Part No.	Description	Qty
KL-0190-50	<b>Hog Ring Pliers Set</b>	<b>1</b>
<i>consists of:</i>		
KL-0190-5	Hog Ring Pliers	1
KL-0190-501	Hog Rings (100 Pcs)	1
KL-0190-5090	Plastic Storage Case	1

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



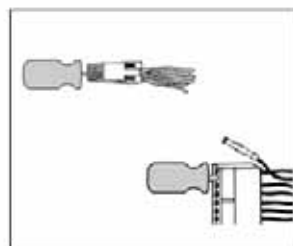
## KL-0190-30 Pilot Lamp

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