

GEDORE

TOOLS FOR LIFE

Puller Series



KL-0174-..Serie

0174-..Serie_EN220312

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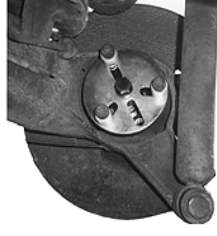
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Application examples:

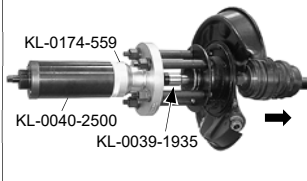
Press out drive shaft with the mechanical spindle.



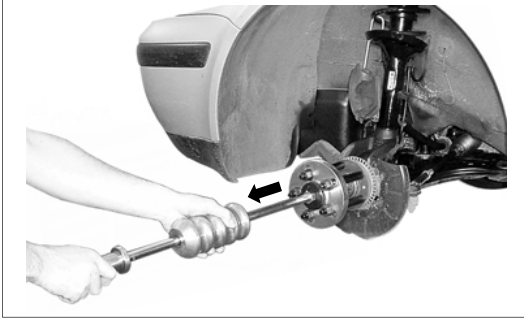
Press out drive-shaft flange



Press out drive shaft using the hydraulic cylinder 17 t



Remove wheel hub using the slide-hammer.



Wheel hubs

Standard Hub,
4 wheel bolts



Standard Hub,
5 wheel nuts



4x4 Off-Road Hub,
6 wheel nuts



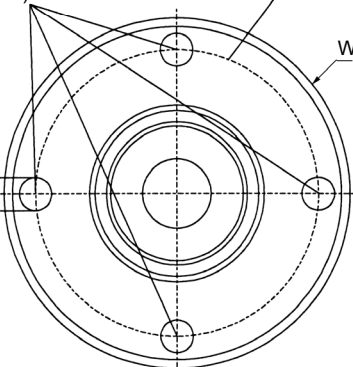
Important data

Wheel nut/bolt pattern,
Number of studs/bolt holes
(here 4)

Pitch Circle Diameter
(PCD)

Wheel hub

Thread diameter
of wheel bolts
or nuts



KL-0174 Puller Series

The **KL-0174 Puller Series** is designed to be used together with the hydraulic cylinder **KL-0215-10 A** (17 t) or with the hydraulic spindle **KL-0045-7** (12 t) for the removal of drive shafts that are bonded with Loctite or stuck due to corrosion. The use of slide hammer **KL-0049-31** allows the removal of wheel hubs, brake drums and half shafts to be performed in-situ on the vehicle.

Due to various combination possibilities and the use of different puller plates, puller bolts and drives, the field of application of the **KL-0174 Puller Series** is almost universal.

Fields of application:

- **Removal of drive shafts:**

⇒ with the aid of the mechanical or hydraulic drive

For example, the use of the 17 t hydraulic cylinder **KL-0215-10 A** (composed of hydraulic cylinder **KL-0040-2500** and pressure spindle **KL-0039-1930**) allows you to press out even drive shafts that are bonded, stuck or corroded in place.

- **Removal of wheel hubs, half shafts and brake drums:**

⇒ with the aid of slide hammer **KL-0049-31**

The use of slide hammer puller **KL-0049-31** allows the removal of wheel hubs, brake drums and half shafts to be performed in-situ on the vehicle.

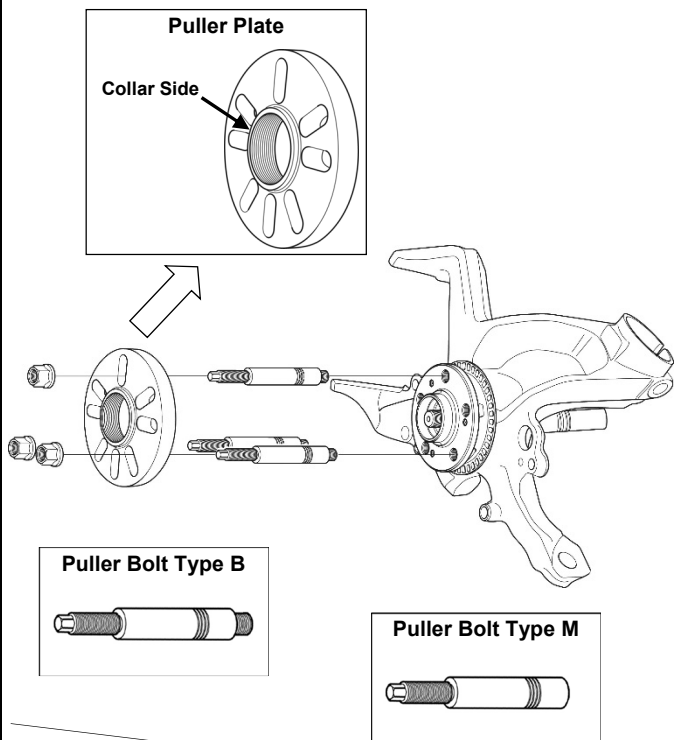
In order to ensure the correct puller from the **KL-0174-.. Series** is used, the following important data must be known:

1. PCD and number of studs/bolt holes (3, 4, 5 or 6).
 - important to determine the correct plate size with the correct hole pattern.
2. Thread sizes of wheel nuts (type M) or wheel bolts (type B).
 - important in order to determine the appropriate puller bolt equipped either with an inner or outer thread.
3. What drive method is to be used, mechanical spindle, slide hammer puller, hydraulic spindle or hydraulic cylinder?
 - important to determine the appropriate adaptor. (see table)

Warnings and Notes

- Any work on vehicles should only be performed by qualified specialist personnel observing and complying with the directions, provisions, and safety regulations specified by the vehicle manufacturer.

Abb. 1: Determination, Assembly and Mounting of the Puller:



“B“

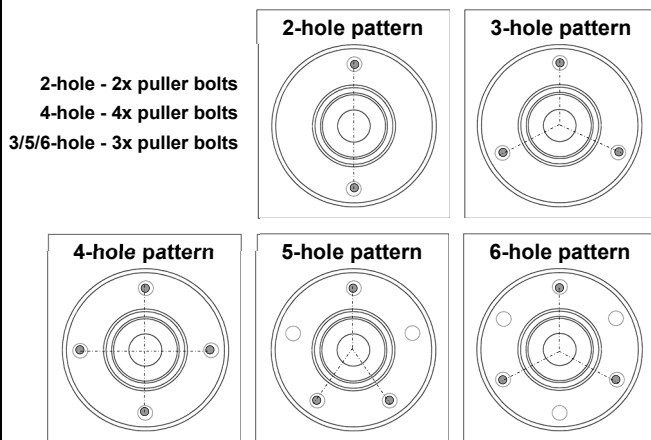


Abb. 2: Removing a Drive Shaft.

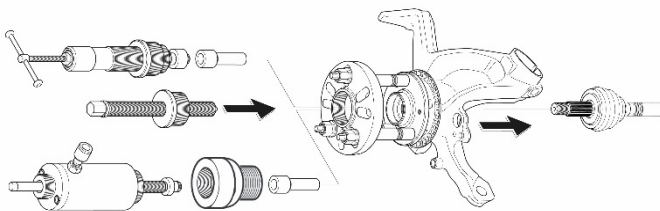
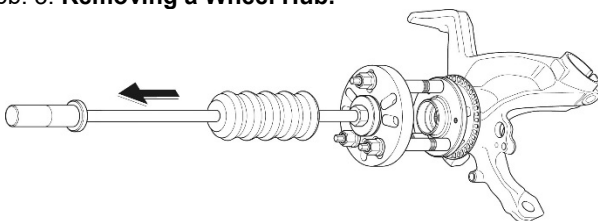


Abb. 3: Removing a Wheel Hub.



Examples of Use

Removing a Drive Shaft:

1. Screw puller bolt either completely into the wheel hub (Type B) or completely onto the wheel hub studs (Type M).
The tightening torque for the puller bolts is approximately 15 Nm. **(Fig. 1 A)**

Note:

- Be sure to arrange puller bolts in the correct number and position depending on the PCD of the wheel hub. **(Fig. 1 B)**

2. Position puller plate correctly onto puller bolts and screw down with shoulder nuts.

The tightening torque for the shoulder nuts is approximately 15 Nm.

Note:

- Be sure to mount puller plate with the collar side facing outwards. **(Fig. 1 A)**
- Be sure to align puller plate centrally relative to the wheel hub.

3. Screw drive into puller plate and remove drive shaft. **(Fig. 2)**

Note:

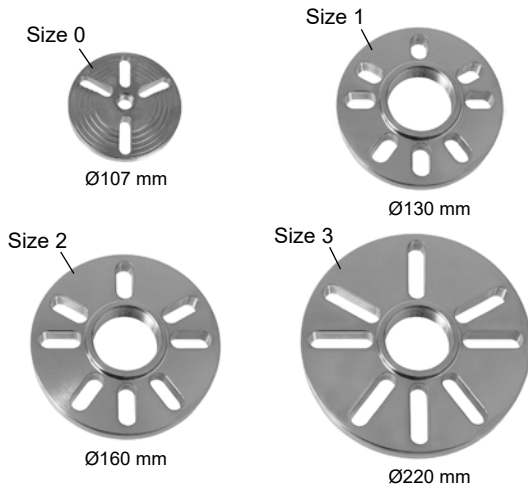
- If the gap between wheel hub and puller plate is insufficient or if the hole circle of the wheel hub is too small to allow for mounting the hydraulic cylinder, use adaptor **KL-0174-559**.

Removing a Wheel Hub, Half Shaft or Brake Drum:

4. Remove the drive used for removing the drive shaft from the puller plate. Screw slide hammer puller **KL-0049-31** completely into puller plate.

Operate the sliding hammer of the puller and remove wheel hub, half shaft or brake drum. **(Fig. 3)**

Puller Plates



Components for the Assembly of a Puller from the Puller-Series KL-0174-...

The puller plates with the size 0, 1, 2 and 3 can be assembled to an all-purpose puller system by using different adaptors, spindles, puller bolts, screws and drives.

Puller Plates:

Part No.	Description	Spindle receiving thread	PCD [mm]	Outer-Ø [mm]	Fixing pattern
KL-0174-020	Puller Plate Size 0	M16x1.5	40 - 88	108	2, 3, 4-hole pitch
KL-0174-140	Puller Plate Size 1	M42x2	76 - 105	130	2, 3, 4, 5, 6-hole pitch
KL-0174-240	Puller Plate Size 2	2 1/4" - 14 UNS	90 - 130	160	2, 3, 4, 5, 6-hole pitch
KL-0174-360	Puller Plate Size 3	2 1/4" - 14 UNS	100 - 180	220	2, 3, 4, 5, 6-hole pitch

Adaptors

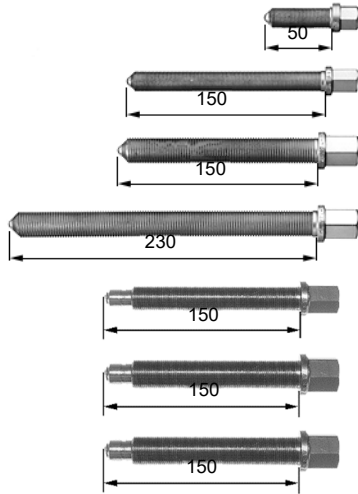


Thread Adaptors: (additional adaptor sizes on demand)

Part No.	Description
KL-0174-510	Adaptor M42x2 to M14 (*KL-0049-2003)
KL-0174-511	Adaptor M42x2 to M14x1.5
KL-0174-513	Adaptor M42x2 to M16x1.5
KL-0174-515	Adaptor M42x2 to M18x1.5
KL-0174-516	Adaptor M42x2 to M18 (*KL-0049-3005)
KL-0174-517	Adaptor M42x2 to M20x2
KL-0174-519	Adaptor M42x2 to M22x2 (*KL-0049-2007)
KL-0174-521	Adaptor M42x2 to M24x2
KL-0174-535	Adaptor 1 1/4"-16 UN to M18 (for KL-0049-31 to SP)
KL-0174-540	Adaptor 2 1/4"-14 UNS to M14
KL-0174-542	Adaptor 2 1/4"-14 UNS to M16x1.5
KL-0174-543	Adaptor 2 1/4"-14 UNS to M16
KL-0174-544	Adaptor 2 1/4"-14 UNS to M18x1.5
KL-0174-545	Adaptor 2 1/4"-14 UNS to M18
KL-0174-546	Adaptor 2 1/4"-14 UNS to M20x1.5
KL-0174-547	Adaptor 2 1/4"-14 UNS to M20x2
KL-0174-549	Adaptor 2 1/4"-14 UNS to M22x2
KL-0174-551	Adaptor 2 1/4"-14 UNS to M24x2
KL-0174-552	Adaptor 2 1/4"-14 UNS to M42x2 (for KL-0045-7)
KL-0174-555	Adaptor 2 1/4"-14 UNS to 1 1/2"-16 UN Ø approx. 36.5 mm (for SP-hydr.-spindle)
KL-0174-558	Adaptor 2 1/4"-14 UNS to M55x2
KL-0174-559	Adaptor 2 1/4"-14 UNS to 2 1/4"-14 UNS Ø approx. 55.5 mm (see page 5)
KL-0174-561	Adaptor 2 1/4"-16 UN to 2 1/4"-14 UNS
KL-0174-562	Adaptor 2 3/4"-16 UN to 2 1/4"-14 UNS
KL-0174-563	Adaptor 2 1/4"-14 UNS to Ø60 mm
KL-0174-564	Adaptor 2 1/4"-16 UN to 2 1/4"-14 UNS (with undersize)
KL-0174-565	Adaptor M68x2 to 2 1/4"-14 UNS
KL-0174-566	Adaptor 2 1/4"-14 UNS to M60x2
KL-0174-567	Adaptor 2 1/4"-14 UNS to G1 1/2"-11
KL-0174-568	Adaptor M60x2 to 2 1/4"-14 UNS
KL-0174-569	Adaptor 1 1/2"-16 UN to 2 1/4"-14 UNS
KL-0174-571	Adaptor M40x2 to 2 1/4"-14 UNS

*Old Part No.

Pressure Spindles



Pressure Spindles:

Part No.	Description
KL-0174-610	Spindle M14x1.5 x 150 mm
KL-0174-611	Spindle M16x1.5 x 50 mm
KL-0174-615	Spindle M18x1.5 x 150 mm
KL-0174-618	Spindle M20x1.5 x 230 mm
KL-0174-619	Spindle M20x2 x 150 mm
KL-0174-623	Spindle M22x2 x 150 mm
KL-0174-624	Spindle M22x2 x 230 mm
KL-0174-620	Spindle with pin (Ø14 mm) M20x2 x 230 mm
KL-0174-812	Spindle with pin (Ø14 mm) M16x1.5 x 150 mm
KL-0174-815	Spindle with pin (Ø14 mm) M18x1.5 x 150 mm
KL-0174-817	Spindle with pin (Ø14 mm) M20x1.5 x 150 mm

Thrust Pieces



Thrust Pieces:

Designed to press out wheel hubs. Suitable for the spindles **KL-0174-812** and **KL-0174-817**.

Part No.	Description	
KL-0174-851	Thrust piece for wheel hubs	Ø 34 mm
KL-0174-854	Thrust piece for wheel hubs	Ø 48 mm

Thrust Piece for Drive Shafts



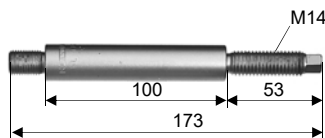
KL-0174-856 Thrust Piece for Drive Shafts

Designed to press out drive shafts. Used in conjunction with the tools of the **KL-0174-.. Series** and mechanical pressure spindles with a pin-Ø of 14 mm.

Puller Bolts:

Puller Bolts Type „B“ Outer thread (wheel bolt system)

Puller Bolts Type „B“

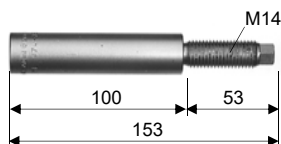


Standard wheel hub (wheel bolt system)



Part No.	Description
KL-0174-722	Puller Bolt Type B M12x1.25 Length without thread = 100 mm
KL-0174-723	Puller Bolt Type B M12x1.5 Length without thread = 100 mm
KL-0174-724	Puller Bolt Type B M14x1.5 Length without thread = 100 mm
KL-0174-725	Puller Bolt Type B M16x1.5 Length without thread = 100 mm
KL-0174-726	Puller Bolt Type B M12x1.75 Length without thread = 100 mm
KL-0174-727	Puller Bolt Type B M14x1.25 Length without thread = 100 mm
KL-0172-728	Puller Bolt Type B M15x1.25 Length without thread = 100 mm

Puller Bolts Type „M“



Standard wheel hub (wheel nut system)



Puller Bolts Type „M“ Inner thread (wheel nut system)

Part No.	Description
KL-0174-762	Puller Bolt Type M M12x1.25 Length without thread = 100 mm
KL-0174-763	Puller Bolt Type M M12x1.5 Length without thread = 100 mm
KL-0174-764 A	Puller Bolt Type M M16x1.5 Length without thread = 100 mm
KL-0174-765	Puller Bolt Type M M16x1.5 Length without thread = 100 mm
KL-0174-767	Puller Bolt Type M M14 Length without thread = 100 mm
KL-0174-768	Puller Bolt Type M M12 Length without thread = 100 mm
KL-0174-769	Puller Bolt Type M ½-20 UNF Length without thread = 100 mm

Shoulder Nuts



Shoulder Nuts:

Part No.	Description
KL-0174-700	Set of shoulder nuts (6 pcs.) M14 - waf 22 mm
KL-0174-701	Shoulder nut M14 - waf 22 mm

Examples of Drives:



KL-0049-31

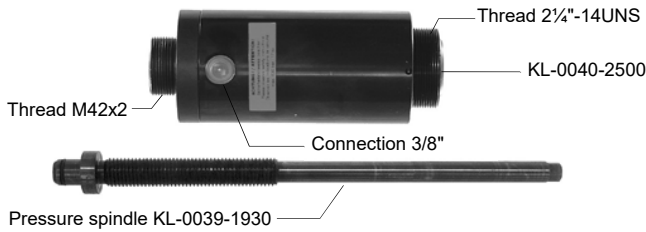


KL-0045-7 Hydraulic Spindle

(when used with the KL-0174-Series, please use Adaptor KL-0174-552!)



KL-0215-10 A



Note: A hydraulic pump is needed to drive the hydraulic cylinder **KL-0040-2500**.

KL-0215-35 M25

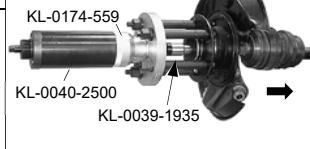


KL-0039-1935



Press out drive shaft using the hydraulic cylinder 17 t

KL-0174-559



KL-0174-911



Drives:

- Mechanical Drive:

consists of **adaptor** (see page 3) and **pressure spindle** (see page 4)

Example:

Part No.	Description	Qty.
KL-0174-547	Adaptor 2 1/4"-14 UNS to M20x2	1
KL-0174-620	Spindle M20x2 x 230	1

KL-0049-31 Slide Hammer Puller

Designed to extract wheel hubs, half-shafts, drive shafts, brake drums etc. Used in conjunction with the **KL-0174-Puller Series**.

Hammer weight:..... 4.8 kg Length: 690 mm

Hydraulic Drive:

KL-0045-7 Hydraulic Spindle (12 t)

The **KL-0045-7** is a hydraulic spindle with a maximum admissible force capacity of 120 kN (=12 t) and is compatible with many **KLANN** tools.

The base tool **KL-0045-700** consists of a body made of high-grade steel, two internal pistons, cup seals and various screw joints. The spindle is operated via a pressure screw.

If the hydraulic spindle **KL-0045-7** is combined with tools of the **KL-0174-Series**, the adaptor **KL-0174-552** (2 1/4"-14UNS to M42x2) is needed when the perforated puller plates size 2 and size 3 are used.

KL-0215-10 A Hydraulic Cylinder with Pressure Spindle

Thanks to a wide range of pressure / support sleeves available and due to its special design, this tool offers a quick, easy, clean and safe solution when it comes to removing/installing silentblobs, ball joints, wheel bearings, hubs, drive-shafts, etc.

The hydraulic cylinder **KL-0215-10** (17 t) is also ideal for use with the **KL-0040-3**, **KL-0174 Series**, **KL-0330** or with our new silentbloc tools. Hydraulic coupling and thread adaptor are not included in the scope of delivery.

KL-0215-35 M25 Hydraulic Hand Pump

The hydraulic hand pump **KL-0215-35 M25** is designed to drive our pulling and pressing devices that are used with hydraulic cylinder **KL-0040-2500**.

The hydraulic pressure and necessary force can be checked while operating the pump at pressure gauge **KL-0040-2529** (supplied with the tool set). The pressure gauge features a tonne scale matching our **KL-0040-2500** hydraulic cylinder (17 t).

KL-0039-1935 Thrust Piece

This tool is necessary for pressing out drive shafts. It is used in conjunction with the **KL-0174-.. Puller Series**, the **KL-0040-2500** hydraulic cylinder and the **KL-0039-1930** pressure spindle with pin-Ø 20 mm.

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

This adaptor is needed to operate the hydraulic cylinder **KL-0215-2500** when using the perforated puller plates size 2 and size 3 of the **KL-0174-.. Series** with a pitch circle diameter of from 90 to 102 mm.

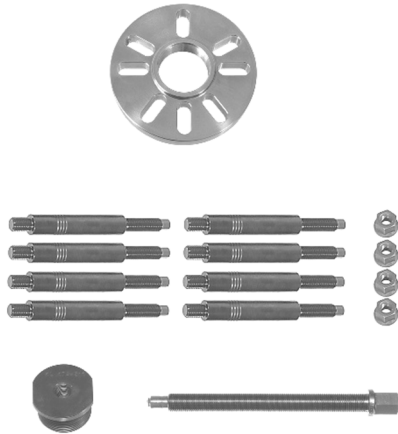
KL-0174-911 Upgrade Kit (Drive Shaft Removal)

Designed to press out universal joint drive shafts / drive shafts. This kit is used with a puller of the **KL-0174-.. series** and the hydraulic cylinder **KL-0040-2500**. The hydraulic cylinder (17 t) allows even bonded or very tight-fitting universal joint drive shafts / drive shafts to be pressed out quickly and without any trouble.

consists of:

Part No.	Description	Qty.
KL-0174-559	Adaptor, 2 1/4"-14UNS to 2 1/4"-14UNS	1
KL-0039-1930	Pressure Spindle M20x350, with O-Ring	1
KL-0174-1935	Thrust Piece	1

KL-0174-110



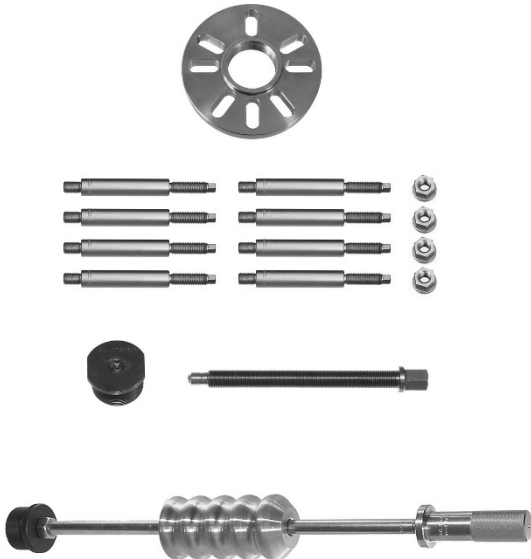
KL-0174-110 Puller Set

Suitable for VW-Audi, Alfa Romeo, BMW, Fiat, Ford, Mercedes, Vauxhall/Opel, Porsche, Renault, Seat, Škoda, etc.

consists of:

Part No.	Description	Qty.
KL-0174-240	Puller Plate, Size 2 (3-4-and 5-hole pitch)	1
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-701	Shoulder Nut, M14	4
KL-0174-547	Adaptor, 2 1/4"-14 UNS to M20x2	1
KL-0174-620	Spindle, M20x2 x 230	1

KL-0174-111



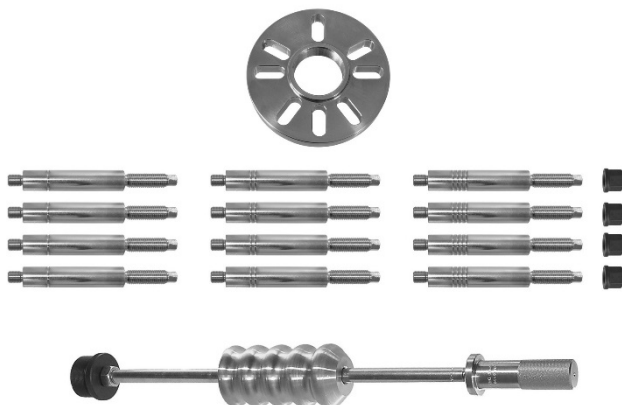
KL-0174-111 Puller Set with Slide Hammer Puller

Suitable for VW-Audi, Alfa Romeo, BMW, Fiat, Ford, Mercedes, Opel/Vauxhall, Porsche, Renault, Seat, Škoda, etc.

consists of:

Part No.	Description	Qty.
KL-0174-240	Puller Plate, Size 2 (3-4-and 5-hole pitch)	1
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-701	Shoulder Nut, M14	4
KL-0174-547	Adaptor, 2 1/4"-14 UNS to M20x2	1
KL-0174-620	Spindle, M20x2 x 230	1
KL-0049-31	Slide Hammer Puller, 4.8 kg	1

KL-0174-112



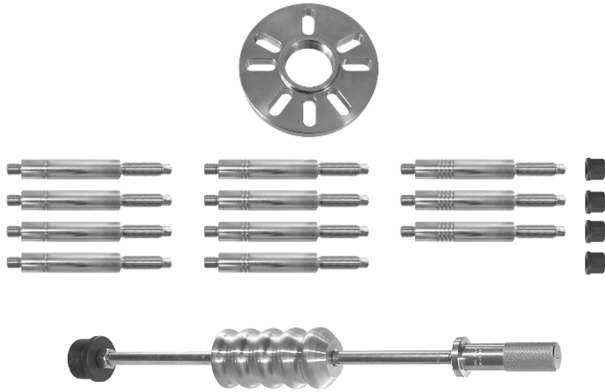
KL-0174-112 Puller Set with Slide Hammer Puller

Suitable for VW-Audi, Alfa Romeo, BMW, Citroën, Fiat, Ford, Lancia, Mercedes, Mini, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Škoda, Smart, Suzuki, Volvo etc.

consists of:

Part No.	Description	Qty.
KL-0174-240	Puller Plate, Size 2 (3-4-and 5-hole pitch)	1
KL-0174-722	Puller Bolt, Type B, M12x1,25 (l=100)	4
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-701	Shoulder Nut, M14	4
KL-0049-31	Slide Hammer Puller, 4.8 kg	1

KL-0174-113



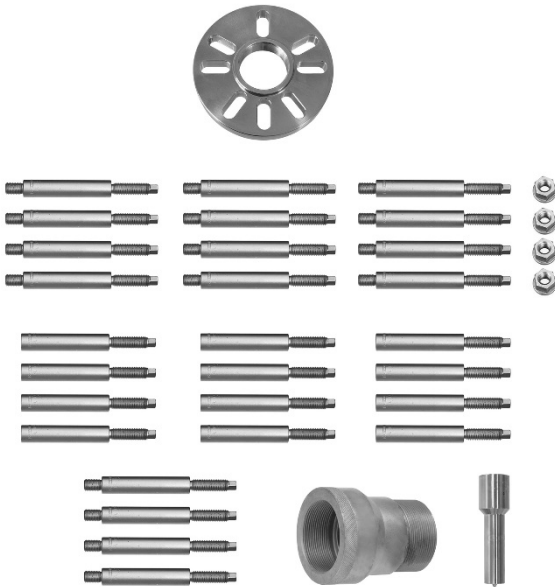
KL-0174-113 Puller Set with Slide Hammer Puller

Suitable for VW-Audi, Alfa Romeo, BMW, Citroën, Fiat, Ford, Mercedes, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Škoda, etc.

consists of:

Part No.	Description	Qty.
KL-0174-240	Puller Plate, Size 2 (3-4-and 5-hole pitch)	1
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-727	Puller Bolt, Type B, M14x1.25 (l=100)	3
KL-0174-701	Shoulder Nut, M14	4
KL-0049-31	Slide Hammer Puller, 4.8 kg	1

KL-0174-150



KL-0174-150 Puller Set

Suitable for VW-Audi, Alfa Romeo, BMW, Citroën, Fiat, Ford, Honda, Hyundai, KIA, Lancia, Mazda, Mercedes, Mini, Mitsubishi, Nissan, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Skoda, Smart, Suzuki, Toyota, Volvo etc.

consists of:

Part No.	Description	Qty.
KL-0039-1935	Thrust Piece	1
KL-0174-240	Puller Plate, Size 2	1
KL-0174-559	Adaptor, 2 1/4"-14UNS to 2 1/4"-14UNS	1
KL-0174-701	Shoulder Nut, M14	4
KL-0174-722	Puller Bolt, Type B, M12x1.25 (l=100)	4
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-727	Puller Bolt, Type B, M14x1.25 (l=100)	4
KL-0174-762	Puller Bolt, Type M, M12x1.25 (l=100)	4
KL-0174-763	Puller Bolt, Type M, M12x1.5 (l=100)	4
KL-0174-764 A	Puller Bolt, Type M, M14x1.5 (l=100)	4



KL-0174-150 E Puller Set, in a Foam Insert

- Like KL-0174-150, however supplied in a foam insert **KL-4999-1316**.

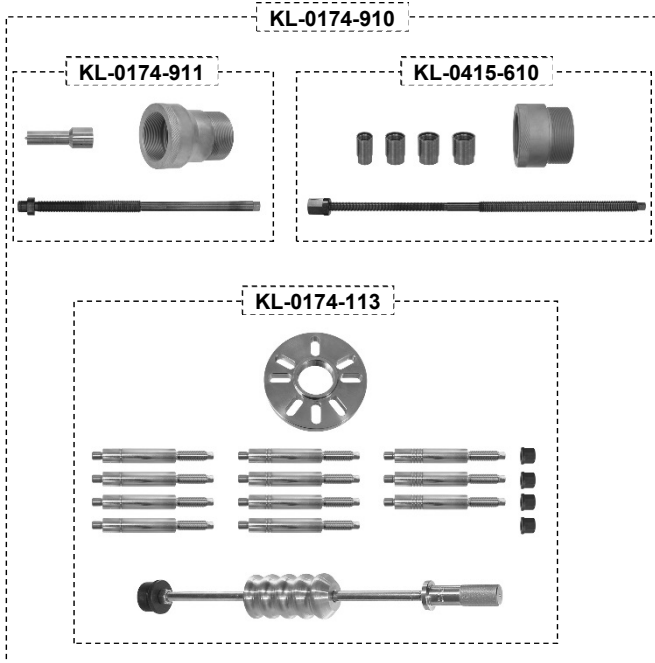
KL-0174-150 K Puller Set, in a Plastic Storage Case

- Like KL-0174-150, however supplied in a plastic storage case **KL-4999-1391**.

KL-0174-421



KL-0174-91



KL-0174-421 Puller Set, with Hydraulic Cylinder and Slide Hammer Puller

Suitable for VW-Audi, Alfa Romeo, BMW, Citroën, Fiat, Ford, Lancia, Mercedes, Mini, Opel/Vauxhall, Peugeot, Porsche, Renault, Seat, Škoda, Smart, Suzuki, Volvo etc.

Part No.	Description	Qty.
KL-0174-421	Puller Set with Hydraulic Cylinder and Slide Hammer Puller	1
<i>consists of:</i>		
KL-0174-420	Puller Set with Hydraulic Cylinder	1
KL-0049-31	Slide Hammer Puller, 4.8 kg	1
<i>consists of:</i>		
KL-0174-420	Puller Set with Hydraulic Cylinder	1
<i>consists of:</i>		
KL-0174-240	Puller Plate, Size 2 (3-4- and 5-hole pitch)	1
KL-0174-722	Puller Bolt, Type B, M12x1.25 (l=100)	4
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-701	Shoulder Nut, M14	4
KL-0040-2500	Hydraulic Cylinder (17 t)	1
KL-0039-1930	Pressure Spindle, M20x350 mm	1
KL-0039-1935	Thrust Piece	1
KL-0174-559	Adaptor, 2 1/4"-14 UNS to 2 1/4"-14 UNS	1

KL-0174-91 Wheel Hub / Drive Shaft Tool, with Hydraulic Cylinder 17t

Suitable for BMW 3-Series (E30, E36), 7-Series (E32, E38), 5-Series (E34, E39) and Mercedes C-Class (W203).

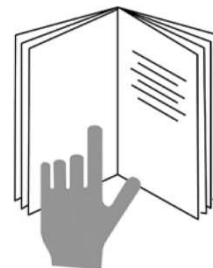
Part No.	Description	Qty.
KL-0174-91	Wheel Hub / Drive Shaft Tool, with Hydraulic Cylinder 17t	1
<i>consists of:</i>		
KL-0174-910	Wheel Hub / Drive Shaft Tool, without Hydraulic Cylinder	1
KL-0040-2500	Hydraulic Cylinder 17t	1
<i>consists of:</i>		
KL-0174-910	Wheel Hub / Drive Shaft Tool, without Hydraulic Cylinder	1
<i>consists of:</i>		
KL-0174-113	Puller Set with Slide Hammer Puller	1
KL-0174-911	Upgrade Kit (Drive Shaft Removal)	1
KL-0415-610	Upgrade Kit (Drive Shaft Installation)	1
<i>consists of:</i>		
KL-0174-113	Puller Set with Slide Hammer Puller	1
<i>consists of:</i>		
KL-0174-240	Puller Plate, Size 2 (3-4- and 5-hole pitch)	1
KL-0174-723	Puller Bolt, Type B, M12x1.5 (l=100)	4
KL-0174-724	Puller Bolt, Type B, M14x1.5 (l=100)	4
KL-0174-727	Puller Bolt, Type B, M14x1.25 (l=100)	3
KL-0174-701	Shoulder Nut, M14	4
KL-0049-31	Slide Hammer Puller, 4.8 kg	1
<i>consists of:</i>		
KL-0174-911	Upgrade Kit (Drive Shaft Removal)	1
<i>consists of:</i>		
KL-0174-559	Adaptor 2 1/4"-14 UNS to 2 1/4"-14 UNS	1
KL-0039-1930	Pressure Spindle M20 x 350 mm, with O-Ring	1
KL-0039-1935	Thrust Piece	1
<i>consists of:</i>		
KL-0174-563	Adaptor 2 1/4"-14 UNS to Ø 60 mm	1
KL-0040-2242-1	Pull spindle M16 x 590 mm	1
KL-0039-1916-2	Shoulder nut M16	1
KL-0415-0008	Adaptor M24x1.5	1
KL-0415-0009	Adaptor M30x1.5	1
KL-0415-0010	Adaptor M22x1.5	1
KL-0415-0011	Adaptor M27x1.5	1

Note: The Universal Puller Sets **KL-0174-110**, **KL-0174-111**, **KL-0174-112**, **KL-0174-113**, **KL-0174-420**, **KL-0174-421** and **KL-0174-91** can be upgraded with additional puller plates, adaptors, spindles and puller bolts.

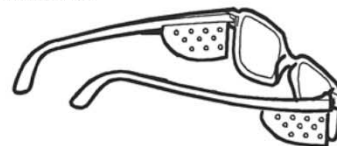
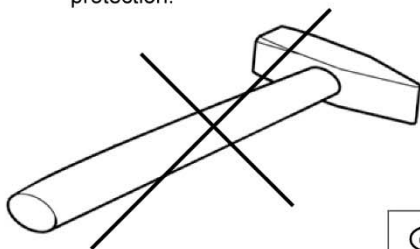
- de **Produkt-Information komplett durchlesen und verstehen.**
- en **Carefully read the Product Information and make sure you have understood it correctly.**
- fr **Lisez entièrement l'information produit et assurez-vous de l'avoir bien comprise.**



- de **Vorschriften und Hinweise beachten**
- en **Observe warnings and notes**
- fr **Respecter les prescriptions et les remarques.**



- de **Sicherheitsvorkehrungen treffen**
 - Werkzeug mit Sicherheitshaltegurt gegen Herunterfallen sichern.
 - Schutzausrüstungsvorgaben der Berufsgenossenschaft beachten.
- en **Ensure all safety measures are in place to avoid injury/potential hazards**
 - Secure the hydraulic cylinder with a safety belt to prevent it from falling.
 - Always follow the procedures and precautions within the operator instruction manual; failure to do this could result in serious injury and could invalidate your warranty and insurance.
- fr **Prendre toutes les mesures de sécurité nécessaires**
 - Sécuriser le cylindre hydraulique contre les chutes à l'aide de la sangle de sécurité.
 - Respecter les prescriptions du Syndicat Professionnel en matière d'équipements de protection.



- de **Pflege und Reinigung**
- en **Care and cleaning**
- fr **Entretien et nettoyage**




GEDORE


TOOLS FOR LIFE


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