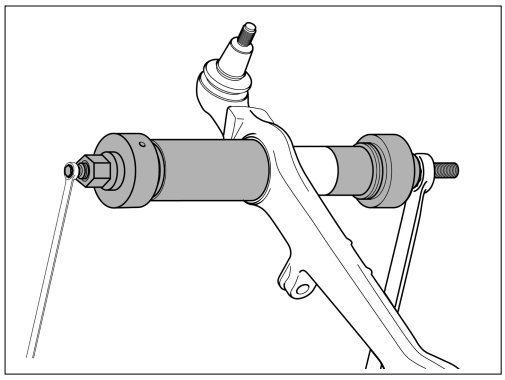
KLANN®
Spezial-Werkzeugbau GmbH

Silentbloc Tool

en

KL-0039-Series



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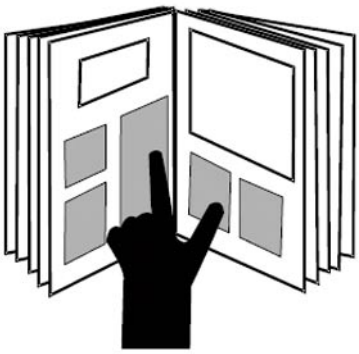

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1. Essential Safety Notices

⚠ Before using the Silentbloc Tool, it is imperative to read and understand the instruction manual. Misuse can lead to SERIOUS or FATAL INJURIES.
This instruction manual is part of the Silentbloc Tool. Store the instruction manual in a safe place for any further use and give it to subsequent users of the Silentbloc Tool.

1.1 Safety Notices and Warnings

For better differentiation, the warning notices in this instruction manual are classified as follows:

Warning sign	Sign reads	Meaning
⚠	**DANGER**	Indicates a hazardous situation which, if not avoided, may result in **serious** or **fatal injuries**.
⚠	**CAUTION**	Indicates a hazardous situation which, if not avoided, may result in moderate or minor injuries.
	ATTENTION	Indicates a situation which, if not avoided, may result in possible damage to the silentbloc tool or its functioning, or to objects in its vicinity.

⚠ **DANGER**

When removing and installing a silentbloc / pivoting bearing by means of the mechanical drive, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.

- Observe and do not exceed the maximum load capacity of the pull spindle.
- Only use Original KLANN spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

⚠ **DANGER**

When removing and installing a silentbloc / pivoting bearing by means of the hydraulic drive, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.

- Observe and do not exceed the maximum load capacity of the pull spindle.
- Use hydraulic pump with pressure gauge **KL-0040-2529**.
- Only use Original KLANN spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

⚠ **DANGER**

When removing and installing a silentbloc / pivoting bearing by means of the press frame and hydraulic drive, there is the risk that the press frame could break and fall to pieces. This will lead to parts or the press frame becoming projectiles.

- Observe and do not exceed the maximum load capacity of the press frame.
- Use hydraulic pump with pressure gauge **KL-0040-2529**.
- Only use Original KLANN spare parts.
- Always keep all parts of your body away from the axial extension of the press frame.

⚠ **CAUTION**

A falling tool can cause injuries.

- Always wear safety shoes / boots.
- *Mechanical drive with pull spindle:* Secure the tool by means of safety belt **KL-0040-2592** (composed of **KL-0040-2590** and adaptor **KL-0040-2591**) against falling.
- *Hydraulic drive with pull spindle:* Secure the tool by means of safety belt **KL-0040-2590** (accessory) against falling.

ATTENTION

Risk of damage to the pull and pressure spindles.

- Lubricate the pull and pressure spindles with molybdenum disulphide paste **KL-0014-0030**.

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1.2 Personal Protective Equipment

ALWAYS wear personal protective equipment when using the silentbloc tool. The silentbloc tool can cause mechanical hazards leading to injuries such as contusions, cuts or concussions.

EYE PROTECTION (see OSHA 29 CFR 1910.133 and ANSI Z87) designed to protect you from flying objects must be worn when using the silentbloc tool.

- Particles may be ejected at very high speed while working with the silentbloc tool and could cause serious injuries to your eyes.

SAFETY GLOVES must be worn when using the silentbloc tool.

- Working with the silentbloc tool can cause skin abrasions and contusions.

SAFETY SHOES/BOOTS with slip resistant soles and steel-toe caps (see OSHA 29 CFR 1910.136 and ANSI 241) must be worn when using the silentbloc tool.

- Falling parts can cause serious injuries to feet and toes.

1.3 Intended Use

⚠ The silentbloc tool must only be used for installing and removing silentblocs or pivoting bearings.

The silentbloc tool may only be used according to the directions and provisions specified in the instruction manual.

- Any other use can result in severe injuries or even death.

1.4 Safe and Proper Use

Take the following safety precautions to prevent injuries and damage that could be caused by improper handling or unsafe use of the silentbloc tool.

⚠ Misuse can result in extremely severe injuries or even death.

- NEVER overload the silentbloc tool.
- Mechanical drive: NEVER attempt to drive both shoulder nuts at the same time. (Risk of pull spindle overload)
- Do not use an impact wrench or any extensions!
- Damaged or worn parts MUST be replaced prior to use.
- ONLY use KLANN Original replacement and accessory parts for the silentbloc tool.

1.5 Work Environment

Work with the silentbloc tool should only be carried out in a safe work environment:

- The workplace must always be clean and tidy.
- The workplace must be sufficiently large and secured.

1.6 Appropriate Users

This instruction manual is designed for technicians in workshops.

DO NOT allow children to use the silentbloc tool.

Purchasers / employers purchasing the silentbloc tool MUST ensure that any person / employee using the silentbloc tool have read and understood this instruction manual prior to using the tool. This instruction manual MUST be made available to the users of the silentbloc tool / employees for reference at all times.

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2. Product Description

The unrivalled modular system of the **KL-0039-Series**, thanks to its universally combinable pressure and support sleeves, can be used in three different ways: In conjunction with a pull spindle, a press frame, or a bench press

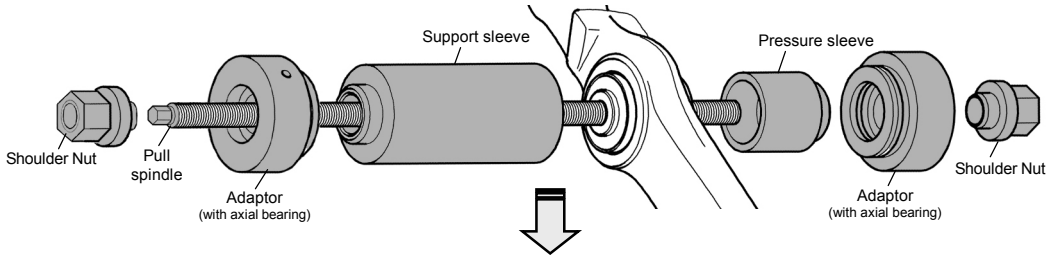
2.1 Silentbloc / Pivoting Bearing Removal / Installation by means of a Pull Spindle

Mechanical Drive

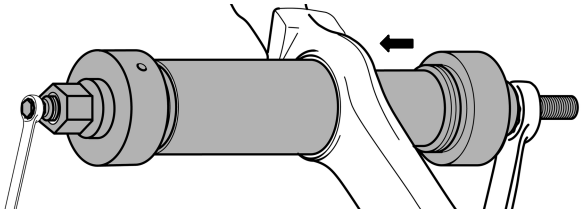
Identification of the required components and assembly of the tool: (see page 11)

Mounting the silentbloc tool

Fig. 1:



Removing the silentbloc / pivoting bearing (Installation follows the same principle)

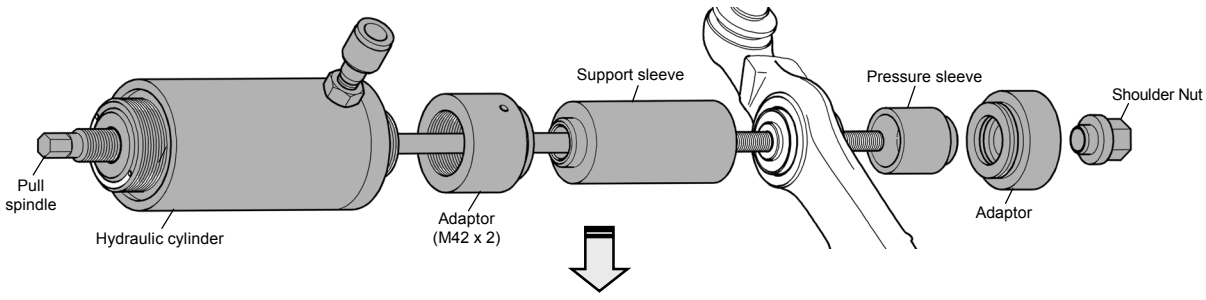


Hydraulic Drive

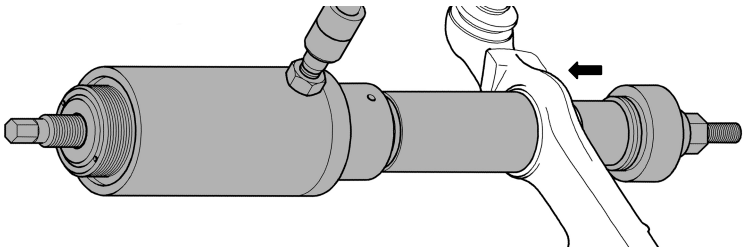
Identification of the required components and assembly of the tool: (see page 11)

Mounting the silentbloc tool

Fig. 2:



Removing the silentbloc / pivoting bearing (Installation follows the same principle)



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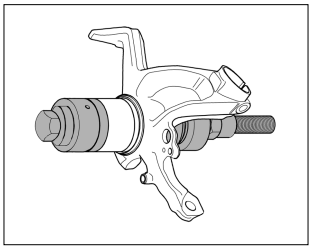
Components for Mechanical Drive

Fig. 3: **KL-0039-20.. Pull spindles**

Fig. 4: **KL-0039-1011 Retainer Adaptor for mechanical spindle**



Components for Hydraulic Drive

Fig. 5: **KL-0039-19.. Pull spindles**

Fig. 6: **KL-0039-1002 Retainer Adaptor for clamping nut**

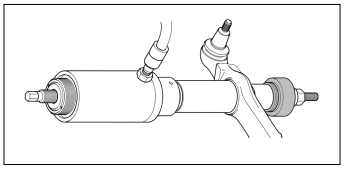


Fig. 7: **KL-0039-1003 Retainer Adaptor for Hydraulic Cylinder**

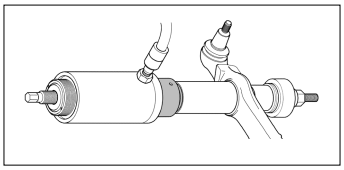


Fig. 8: **KL-0040-2500 Hydraulic Cylinder 17 t**

Components for the Mechanical Drive of the Pull Spindles

KL-0039-2010 Pull spindle M10x1.25, with nuts
Max. load capacity: ..... 5 t

KL-0039-2012 Pull spindle M12, with nuts
Max. load capacity: ..... 7 t

KL-0039-2014 Pull spindle M14, with nuts
Max. load capacity: ..... 9 t

KL-0039-2016 Pull spindle M16, with nuts
Max. load capacity: ..... 13 t

KL-0039-2018 Pull spindle M18, with nuts
Max. load capacity: ..... 16 t

Note: All spindles feature an overall length of 395 mm.

KL-0039-1011 Retainer Adaptor for mechanical spindle
This tool is needed to retain the various **KL-0039-..** or **KL-0043-..** pressure/support sleeves if these are to be inserted by using the mechanical drive.
The built-in ball bearing allows for accurate and professional working, even under intensive load.

KL-0039-160. / -170. Pressure-/Support Sleeves
For description and technical data, please refer to **page 10**.

Components for the Hydraulic Drive of the Pull Spindle

KL-0039-1910 Pull spindle M10x1.25, with nut
Max. load capacity: ..... 5 t

KL-0039-1912 Pull spindle M12, with nut
Max. load capacity: ..... 7 t

KL-0039-1914 Pull spindle M14, with nut
Max. load capacity: ..... 9 t

KL-0039-1916 Pull spindle M16, with nut
Max. load capacity: ..... 13 t

KL-0039-1920 Pull spindle M20, with nut
Max. load capacity: ..... 20 t

Note: All spindles feature an overall length of 590 mm.

KL-0039-1002 Retainer Adaptor for Clamping Nut
This adaptor is designed to retain the various pressure-/support sleeves of the **KL-0039-..** or **KL-0043-..Series**.
Holding-Ø for clamping nut or pressure spindle: 20 mm

KL-0039-1003 Retainer Adaptor for Hydraulic Cylinder
This tool is designed to retain the various **KL-0039-..** or **KL-0043-..** pressure-/support sleeves if these are to be inserted by means of the hydraulic cylinder **KL-0040-2500**.
(Connecting thread: M42x2)

KL-0040-2500 Hydraulic Cylinder 17 t
Due to its special design as a tubular piston cylinder and the possibility to be used in conjunction with various spindles, the hydraulic cylinder **KL-0040-2500** allows for pulling and pushing operations.

KL-0039-160. / -170. Pressure-/Support Sleeves
For description and technical data, please refer to **page 10**.

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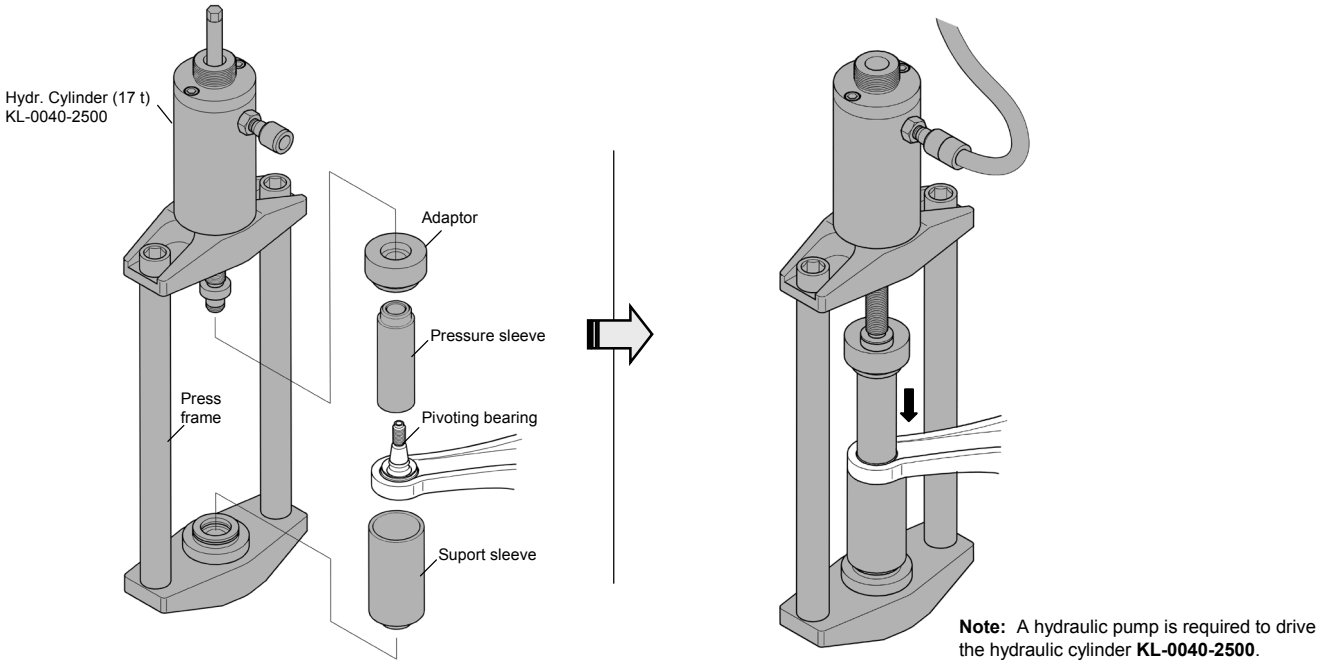
2.2 Silentbloc / Pivoting Bearing - Removal / Installation by means of a Press Frame

Identification of the required components and assembly of the tool: (see page 11)

Mounting the tool and removing the silentbloc / pivoting bearing. (Installation follows the same principle)

Fig. 9:



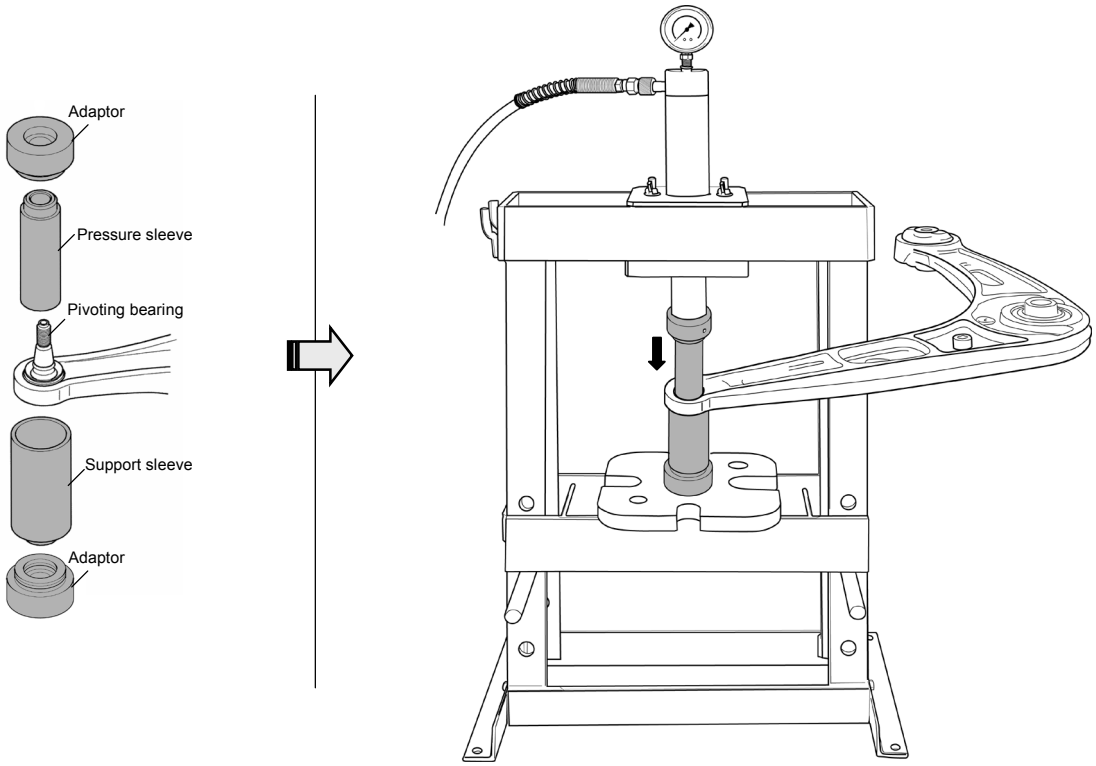
Note: A hydraulic pump is required to drive the hydraulic cylinder **KL-0040-2500**.

2.3 Silentbloc / Pivoting Bearing - Removal / Installation by means of a Bench Press

Identification of the required components and assembly of the tool: (see page 11)

Mouting the tool and removing the silentbloc / pivoting bearing. (Installation follows the same principle)

Fig. 10:



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Components for Press Frame

Fig. 11: **KL-0039-1140 Press Frame, lightweight, short**

Fig. 12: **KL-0039-1110 Press Frame, short**

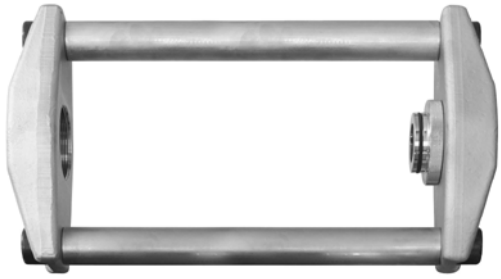

Fig. 13: **KL-0039-1930 Pressure Spindle M20 x 350 mm**

Fig. 14: **KL-0039-1931 Pressure Spindle M20 x 405 mm**

Fig. 15: **KL-0039-1002 Retainer Adaptor for Pressure spindle**

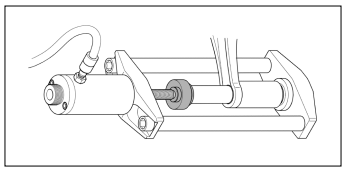

Fig. 16: **KL-0040-2500 Hydraulic Cylinder 17 t**

Components for Bench Press

Fig. 17: **KL-0039-1002 Retainer Adaptor**

Components for the Press Frame

KL-0039-1140 Press Frame, lightweight, short

Technical Data:

Inner width: ..... 115 mm
Inner length: ..... 275 mm
Maximum load capacity: ..... 12 t
Locating thread for cylinder: ..... 2 ¼“-14 UNS
Weight: ..... 4.7 kg

KL-0039-1110 Press Frame, short

Technical Data:

Inner width: ..... 135 mm
Inner length: ..... 275 mm
Maximum load capacity: ..... 17 t
Locating thread for cylinder: ..... 2 ¼“-14 UNS
Weight: ..... 7.8 kg

KL-0039-1930 Pressure Spindle M20 x 350 mm

Technical Data:

Pin-Ø: ..... 20 mm
Overall length: ..... 350 mm
Maximum load capacity: ..... 20 t

KL-0039-1931 Pressure Spindle M20 x 405 mm

Technical Data:

Pin-Ø: ..... 20 mm
Overall length: ..... 405 mm
Maximum load capacity: ..... 20 t

KL-0039-1002 Retainer Adaptor for Pressure Spindle

This adaptor is designed to retain the various pressure-/support sleeves of the **KL-0039-..** or **KL-0043-..Series**.
Locating-Ø for clamping nut or pressure spindle: 20 mm

KL-0040-2500 Hydraulic Cylinder 17 t

Due to its special design as a tubular piston cylinder and the possibility to be used in conjunction with various spindles, the hydraulic cylinder **KL-0040-2500** allows for pulling and pushing operations.

KL-0039-160. / -170. Pressure-/Support Sleeves

For description and technical data, please refer to **page 10**.

Components for the Bench Press

KL-0039-1002 Retainer Adaptor

This adaptor is designed to retain the various pressure-/support sleeves of the **KL-0039-..** or **KL-0043-..Series**.

KL-0039-160. / -170. Pressure-/Support Sleeves

For description and technical data, please refer to **page 10**.

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Fig. 18: **KL-0039-16.. Pressure-/Support Sleeves, short, 45 mm**

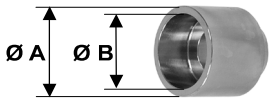

Fig. 19: **KL-0039-17.. Pressure-/Support Sleeves, long, 115 mm**

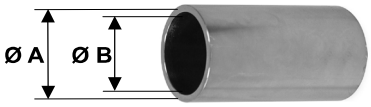

Fig. 20: **KL-0039-161. Guide Pin, short**

Fig. 21: **KL-0039-171. Guide Pin, long**

Pressure-/Support Sleeves

Indispensable for pressing in and pressing out silentblocs, shafts, bushings etc. Used in conjunction with the tools of the **KL-0039-.. Series**.

KL-0039-16.. Pressure-/Support Sleeves, short

Length of the sleeves: ..... 45 mm

Part No.	Dimensions	Part No.	Dimensions
KL-0039-1630	ØA: 30 mm, ØB: 22 mm	KL-0039-1662	ØA: 62 mm, ØB: 54 mm
KL-0039-1632	ØA: 32 mm, ØB: 24 mm	KL-0039-1664	ØA: 64 mm, ØB: 56 mm
KL-0039-1634	ØA: 34 mm, ØB: 26 mm	KL-0039-1666	ØA: 66 mm, ØB: 58 mm
KL-0039-1636	ØA: 36 mm, ØB: 28 mm	KL-0039-1668	ØA: 68 mm, ØB: 60 mm
KL-0039-1638	ØA: 38 mm, ØB: 30 mm	KL-0039-1670	ØA: 70 mm, ØB: 62 mm
KL-0039-1640	ØA: 40 mm, ØB: 32 mm	KL-0039-1672	ØA: 72 mm, ØB: 64 mm
KL-0039-1642	ØA: 42 mm, ØB: 34 mm	KL-0039-1674	ØA: 74 mm, ØB: 66 mm
KL-0039-1644	ØA: 44 mm, ØB: 36 mm	KL-0039-1676	ØA: 76 mm, ØB: 68 mm
KL-0039-1646	ØA: 46 mm, ØB: 38 mm	KL-0039-1678	ØA: 78 mm, ØB: 70 mm
KL-0039-1648	ØA: 48 mm, ØB: 40 mm	KL-0039-1680	ØA: 80 mm, ØB: 72 mm
KL-0039-1650	ØA: 50 mm, ØB: 42 mm	KL-0039-1682	ØA: 82 mm, ØB: 74 mm
KL-0039-1652	ØA: 52 mm, ØB: 44 mm	KL-0039-1684	ØA: 84 mm, ØB: 76 mm
KL-0039-1654	ØA: 54 mm, ØB: 46 mm	KL-0039-1686	ØA: 86 mm, ØB: 78 mm
KL-0039-1656	ØA: 56 mm, ØB: 48 mm	KL-0039-1688	ØA: 88 mm, ØB: 80 mm
KL-0039-1658	ØA: 58 mm, ØB: 50 mm	KL-0039-1690	ØA: 90 mm, ØB: 82 mm
KL-0039-1660	ØA: 60 mm, ØB: 52 mm		

KL-0039-17.. Pressure-/Support Sleeves long

Length of the sleeves: ..... 115 mm

Part No.	Dimensions	Part No.	Dimensions
KL-0039-1730	ØA: 30 mm, ØB: 22 mm	KL-0039-1762	ØA: 62 mm, ØB: 54 mm
KL-0039-1732	ØA: 32 mm, ØB: 24 mm	KL-0039-1764	ØA: 64 mm, ØB: 56 mm
KL-0039-1734	ØA: 34 mm, ØB: 26 mm	KL-0039-1766	ØA: 66 mm, ØB: 58 mm
KL-0039-1736	ØA: 36 mm, ØB: 28 mm	KL-0039-1768	ØA: 68 mm, ØB: 60 mm
KL-0039-1738	ØA: 38 mm, ØB: 30 mm	KL-0039-1770	ØA: 70 mm, ØB: 62 mm
KL-0039-1740	ØA: 40 mm, ØB: 32 mm	KL-0039-1772	ØA: 72 mm, ØB: 64 mm
KL-0039-1742	ØA: 42 mm, ØB: 34 mm	KL-0039-1774	ØA: 74 mm, ØB: 66 mm
KL-0039-1744	ØA: 44 mm, ØB: 36 mm	KL-0039-1776	ØA: 76 mm, ØB: 68 mm
KL-0039-1746	ØA: 46 mm, ØB: 38 mm	KL-0039-1778	ØA: 78 mm, ØB: 70 mm
KL-0039-1748	ØA: 48 mm, ØB: 40 mm	KL-0039-1780	ØA: 80 mm, ØB: 72 mm
KL-0039-1750	ØA: 50 mm, ØB: 42 mm	KL-0039-1782	ØA: 82 mm, ØB: 74 mm
KL-0039-1752	ØA: 52 mm, ØB: 44 mm	KL-0039-1784	ØA: 84 mm, ØB: 76 mm
KL-0039-1754	ØA: 54 mm, ØB: 46 mm	KL-0039-1786	ØA: 86 mm, ØB: 78 mm
KL-0039-1756	ØA: 56 mm, ØB: 48 mm	KL-0039-1788	ØA: 88 mm, ØB: 80 mm
KL-0039-1758	ØA: 58 mm, ØB: 50 mm	KL-0039-1790	ØA: 90 mm, ØB: 82 mm
KL-0039-1760	ØA: 60 mm, ØB: 52 mm		

Guide Pins

KL-0039-161. Guide Pins, short

Part No.	Dimensions
KL-0039-1610	Ø10 mm, Overall length 70 mm
KL-0039-1612	Ø12 mm, Overall length 70 mm
KL-0039-1614	Ø14 mm, Overall length 70 mm
KL-0039-1616	Ø16 mm, Overall length 70 mm

KL-0039-171. Guide Pins, long

Part No.	Dimensions
KL-0039-1710	Ø10 mm, Overall length 140 mm
KL-0039-1712	Ø12 mm, Overall length 140 mm
KL-0039-1714	Ø14 mm, Overall length 140 mm
KL-0039-1716	Ø16 mm, Overall length 140 mm

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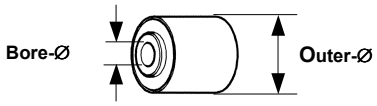
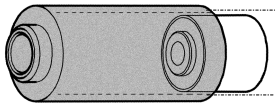
Fig. 22: **Securing the tool against falling.**

Fig. 23: **Determination of Tool Components.**

"A" Measure Bore-Ø and Bearing outer-Ø

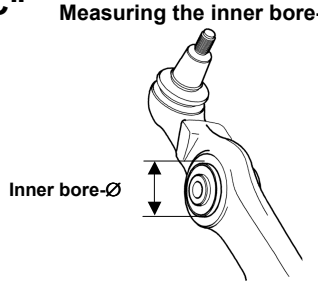


"B" Identifying the support sleeve (with dimension bearing outer-Ø)

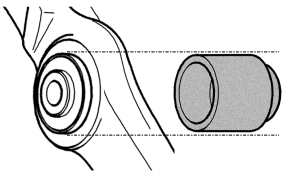


Support sleeve inner-Ø = Bearing outer-Ø + approx. 2 to 3 mm

"C" Measuring the inner bore-Ø of locating bore.



"D" Identifying the pressure sleeve (with dimension inner bore-Ø)



Pressure sleeve outer-Ø = Inner bore-Ø – 0.5 to 1.0 mm

3. Preparatory Work

Before using the silentboc tool for the first time, check and confirm you have all parts listed in the scope of delivery. Then, follow the mounting instructions.

3.1 Checking the Delivery (see pages 17-31)

3.2 Securing the tool against falling. (applies only to pull spindles)

Mechanical drive: Fasten safety belt for mechanical tool set **KL-0040-2592** (accessories) to retainer adaptor **KL-0039-1011 (Fig. 22 A)**

Hydraulic drive: Fasten safety belt **KL-0040-2590** (accessories) to hydraulic cylinder **KL-0040-2500**. **(Fig. 22 B)**

3.3 Preparing the Vehicle.

Loosen and/or remove all necessary components.

3.4 Determination of the Tool Components

1. ***ATTENTION***

Risk of damage to the pull spindle.

- Always choose the largest possible spindle-Ø.

Identify the correct pull spindle. **(Fig. 23 A)**

⇒ For this, measure the bore inner-Ø of the bearing.

2. ***ATTENTION***

Risk of damage to the support sleeve.

- The inner diameter of the support sleeve should not be chosen too small as there is the risk that the pressed-out bearing could get stuck in the support sleeve.

Identify the correct support sleeve. **(Fig. 23 B)**

⇒ For this, measure the bearing outer-Ø. **(Fig. 23 A)**

The support sleeve with the correct inner-Ø results from the bearing outer-Ø **+** approx. 2 to 3 mm.

3. ***ATTENTION***

Risk of damage to the pressure sleeve.

- The outer diameter of the pressure sleeve must not exceed the identified diameter, as there is the risk that the pressure sleeve will be pressed into the bore.

Identify the correct pressure sleeve. **(Fig. 23 D)**

⇒ For this, measure the bore inner-Ø of the locating bore. **(Fig. 23 C)**

The correct pressure sleeve results from the bore inner-Ø **-** 0.5 to 1.0 mm.

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Removing the Silentbloc / Pivoting Bearing.

Fig. 24: **Mounting the tool.**

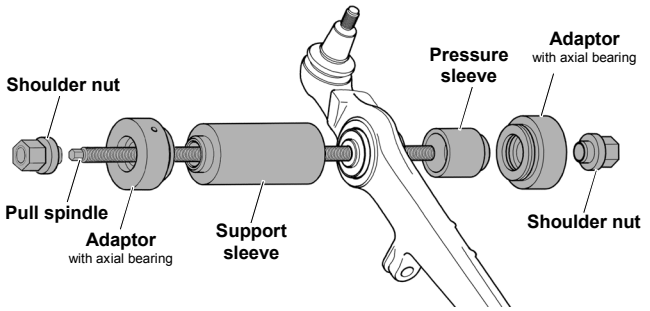
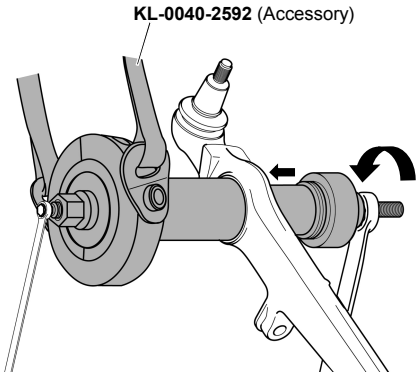


Fig. 25: **Removing the Silentbloc / Pivoting Bearing.**



Installing the Silentbloc / Pivoting Bearing.

Fig. 26: **Mounting the tool.**

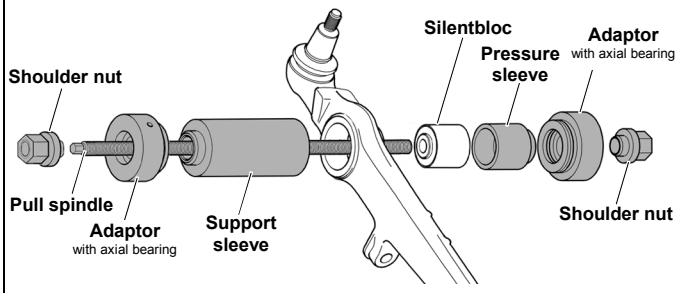
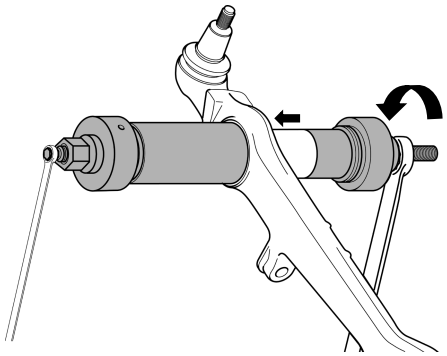


Fig. 27: **Installing the Silentbloc / Pivoting Bearing.**



4. Silentbloc / Pivoting Bearing Removal, Silentbloc / Pivoting Bearing Installation

These instruction describe how to remove and install silentblocs / pivoting bearings.

4.1 Removing a Silentbloc / Pivoting Bearing
(Pull spindle with mechanical drive)

1. ***ATTENTION***
   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the dismounted silentbloc / pivoting bearing can be inserted into the sleeve inner-Ø without risk of collision.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so that it can be inserted through the bearing housing without risk of collision.

   Mount the tool components identified as per instructions **3.4** on the bearing housing as shown in **Fig. 24**.
2. Secure the tool by means of safety belt **KL-0040-2592** (accessory) against falling.
3. **⚠ DANGER**
   When removing silentblocs / pivoting bearings, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.
   - Observe and and do not exceed the maximum load capacity.
   - Only use Original KLANN spare parts.
   - Always keep all parts of your body away from the axial extension of the pull spindle.

   Remove the silentbloc / pivoting bearing by turning a shoulder nut by means of a suitable spanner. **(Fig. 25)**
   Note: Lock the pull spindle using a suitable spanner.

4.2 Installing a Silentbloc / Pivoting Bearing
(Pull spindle with mechanical drive)

1. ***ATTENTION***
   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the installed silentbloc / pivoting bearing can be inserted into the sleeve inner-Ø without risk of collision in case the silentbloc / pivoting bearing in its final position has to protrude from the bearing bore.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180.°
   - Align the pressure sleeve so as to enable it to press against the silentbloc / pivoting bearing concentrically to the bearing outer-Ø.

   Mount the tool components identified as per instructions **3.4** with the new silentbloc / pivoting bearing on the bearing housing as shown in **Fig. 26**.
2. **⚠ DANGER**
   When installing silentblocs / pivoting bearings, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.
   - Observe and and do not exceed the maximum load capacity.
   - Only use Original KLANN spare parts.
   - Always keep all parts of your body away from the axial extension of the pull spindle.

   Install the silentbloc / pivoting bearing by turning a shoulder nut by means of a suitable spanner. **(Fig. 27)**
   Note: Lock the pull spindle using a suitable spanner.
3. Stop the installation process as soon as the silentbloc / pivoting bearing has reached its correct position.
4. Dismount tool.

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Removing the Silentbloc / Pivoting Bearing.

Fig. 28: **Mounting the tool.**

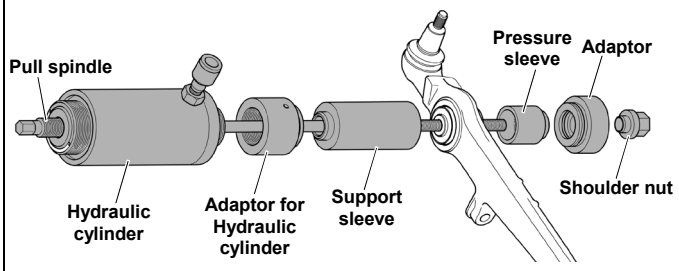
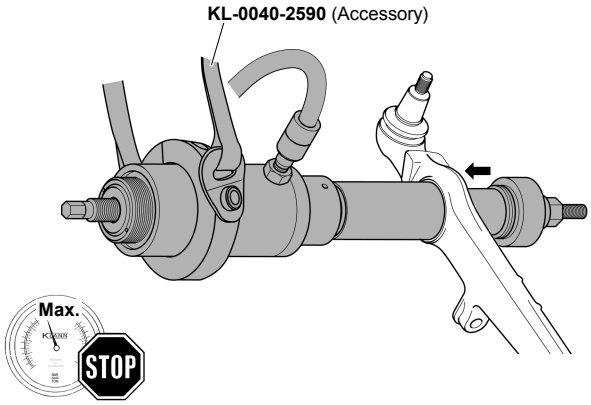


Fig. 29: **Removing the Silentbloc / Pivoting Bearing.**



Installing the Silentbloc / Pivoting bearing.

Fig. 30: **Mounting the tool.**

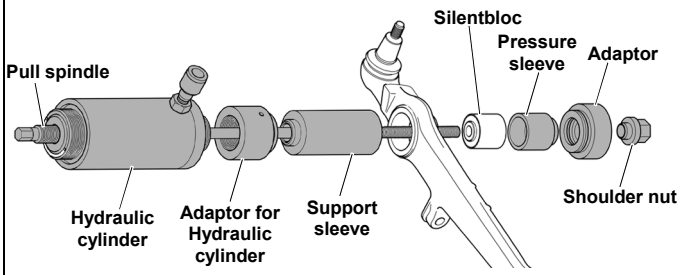
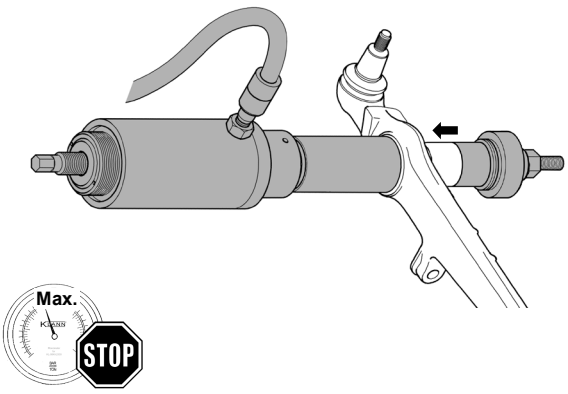


Fig. 31: **Installing the Silentbloc / Pivoting Bearing.**



4.3 Removing a Silentbloc / Pivoting Bearing

(Pull spindle hydraulic drive)

1. ***ATTENTION***

   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the dismounted silentbloc / pivoting bearing can be inserted into the sleeve inner-Ø without risk of collision.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so that it can be inserted through the bearing housing without risk of collision.

   Mount the tool components identified as per instructions **3.4** on the bearing housing as shown in **Fig. 28**.
2. Secure the tool by means of safety belt **KL-0040-2590** (accessory) against falling.
3. Connect hydraulic cylinder to hydraulic pump (accessory).
4. **⚠ DANGER**

   When removing silentblocs / pivoting bearings by means of the hydraulic cylinder **KL-0040-2500**, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.
   - Observe and do not exceed the maximum load capacity of the pull spindle and hydraulic cylinder.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts.
   - Always keep all parts of your body away from the axial extension of the pull spindle.

   Operate hydraulic pump and remove silentbloc. **(Fig. 29)** During the removal process, read the required force on the pressure gauge of the hydraulic pump.

4.4 Installing a Silentbloc / Pivoting Bearing

(Pull spindle with hydraulic drive)

1. ***ATTENTION***

   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the installed silentbloc / pivoting bearing can be inserted into the sleeve inner-Ø without risk of collision in case the silentbloc / pivoting bearing in its final position has to protrude from the bearing bore.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so as to enable it to press against the silentbloc / pivoting bearing concentrically to the bearing outer-Ø.

   Mount the tool components identified as per instructions **3.4** with the new silentbloc / pivoting bearing on the bearing housing as shown in **Fig. 30**.
2. Connect hydraulic cylinder to hydraulic pump (accessory).
3. **⚠ DANGER**

   When installing silentblocs / pivoting bearings by means of the hydraulic cylinder **KL-0040-2500**, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts or the pull spindle becoming projectiles.
   - Observe and do not exceed the maximum load capacity of the pull spindle and hydraulic cylinder.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts.
   - Always keep all parts of your body away from the axial extension of the pull spindle.

   Operate hydraulic pump and install silentbloc / pivoting bearing. **(Fig. 31).** During the installation process, read the required force on the pressure gauge of the hydraulic pump.
4. Stop the installation process as soon as the silentbloc / pivoting bearing has reached its correct position.
5. Dismount tool.

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Removing the Silentbloc / Pivoting Bearing.

Fig. 32: **Mounting the tool.**

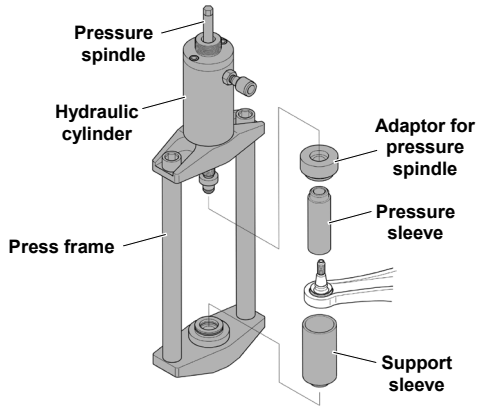
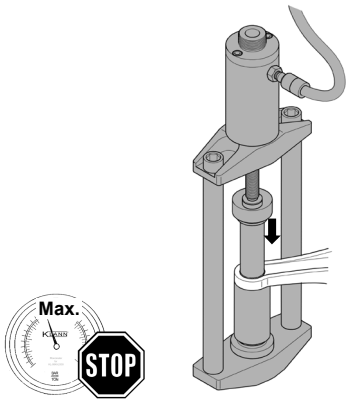


Fig. 33: **Removing the Silentbloc / Pivoting Bearing.**



Installing the Silentbloc / Pivoting Bearing.

Fig. 34: **Mounting the tool.**

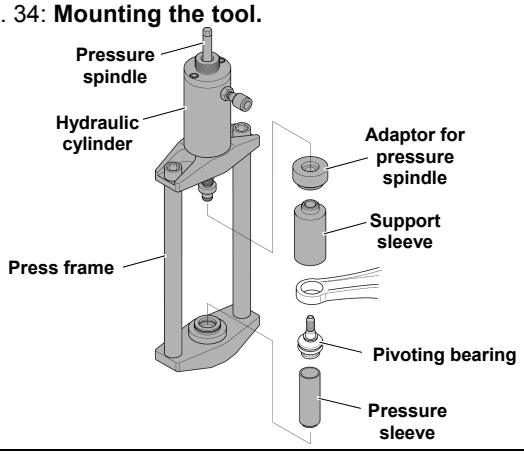
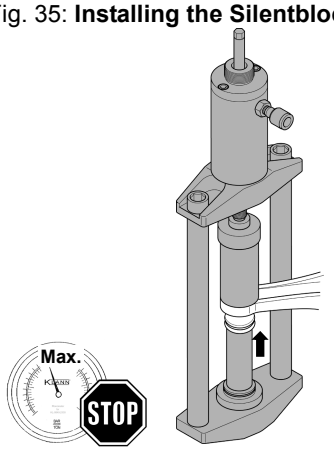


Fig. 35: **Installing the Silentbloc / Pivoting Bearing.**



4.5 Removing a Silentbloc / Pivoting Bearing
(Press Frame)

1. ***ATTENTION***
   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the dismounted silentbloc / pivoting bearing can be pressed in into the sleeve inner-Ø without risk of collision.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so that it can be pressed through the bearing housing without risk of collision.

   Mount the tool components identified as per instructions **3.4** on the bearing housing as shown in **Fig. 32**.
2. Connect hydraulic cylinder to hydraulic pump (accessory).
3. **⚠ DANGER**
   When removing silentblocs / pivoting bearings by means of the hydraulic cylinder **KL-0040-2500**, there is the risk that the press frame could break and fall to pieces. This will lead to parts or the press frame becoming projectiles.
   - Observe and do not exceed the maximum load capacity of the press frame and hydraulic cylinder.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts.
   - Always keep all parts of your body away from the axial extension of the press frame.

   Operate hydraulic pump and remove silentbloc. **(Fig. 33)** During the removal process, read the required force on the pressure gauge of the hydraulic pump.

4.6 Installing a Silentbloc / Pivoting Bearing
(Press Frame)

1. ***ATTENTION***
   Risk of damage to the pressure and support sleeves.
   - Align the support sleeve so that the installed silentbloc / pivoting bearing can be pressed in into the sleeve inner-Ø without risk of collision in case the silentbloc / pivoting bearing in its final position has to protrude from the bearing bore.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so as to enable it to press against the silentbloc / pivoting bearing concentrically to the bearing outer-Ø.

   Mount the tool components identified as per instructions **3.4** with the new silentbloc / pivoting bearing on the bearing housing as shown in **Fig. 34**.
2. Connect hydraulic cylinder to hydraulic pump (accessory).
3. **⚠ DANGER**
   When installing silentblocs / pivoting bearings by means of the hydraulic cylinder **KL-0040-2500**, there is the risk that the press frame could break and fall to pieces. This will lead to parts or the press frame becoming projectiles.
   - Observe and do not exceed the maximum load capacity of the press frame and hydraulic cylinder.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts..
   - Always keep all parts of your body away from the axial extension of the press frame.

   Operate hydraulic pump and install silentbloc / pivoting bearing. **(Fig. 35)** During the installation process, read the required force on the pressure gauge of the hydraulic pump.
4. Stop installation process as soon as the silentbloc / pivoting bearing has reached its correct position.
6. Dismount tool.

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Removing the Silentbloc / Pivoting Bearing.

Fig. 36: **Mounting the tool.**

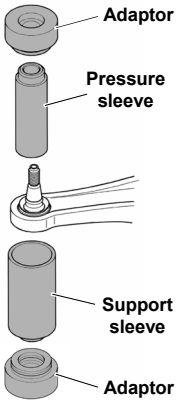
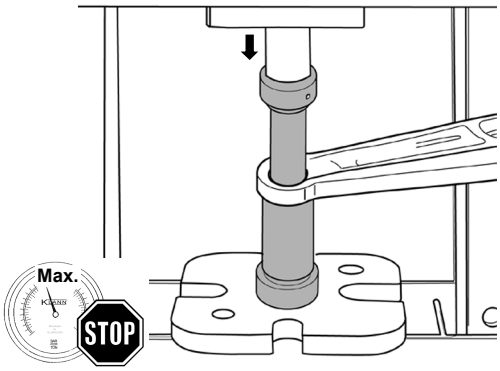


Fig. 37: **Removing the Silentbloc / Pivoting Bearing.**



Installing the Silentbloc / Pivoting Bearing.

Fig. 38: **Mounting the tool.**

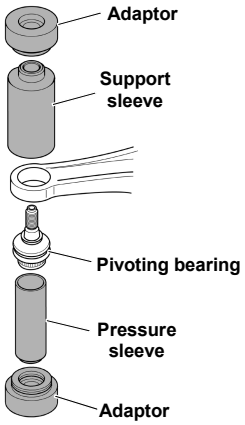
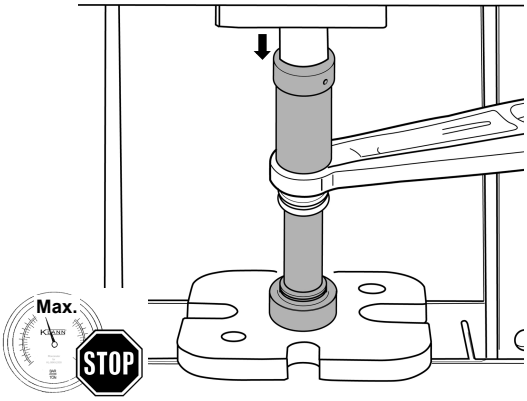


Fig. 39: **Installing the Silentbloc / Pivoting Bearing.**



4.7 Removing a Silentbloc / Pivoting Bearing (Bench Press)

1. ***ATTENTION***

   Risk of damage to the pressure and support sleeves.

   - Align the support sleeve so that the dismounted silentbloc / pivoting bearing can be pressed in into the sleeve inner-Ø without risk of collision.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so that it can be pressed through the bearing housing without risk of collision.

   Mount the tool components identified as per instructions **3.4** on the bearing housing as shown in **Fig. 36**.

2. ⚠ **DANGER**

   When removing silentblocs / pivoting bearings by means of a bench press, there is the risk that the bench press could break and fall to pieces. This will lead to parts or the bench press becoming projectiles.

   - Observe and do not exceed the maximum load capacity of the bench press.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts.

   Operate the hydraulic pump of the bench press and remove silentbloc. **(Fig. 37)** During the removal process, read the required force on the pressure gauge of the hydraulic pump.

4.8 Installing a Silentbloc / Pivoting Bearing (Bench Press)

1. ***ATTENTION***

   Risk of damage to the pressure and support sleeves.

   - Align the support sleeve so that the installed silentbloc / pivoting bearing can be pressed in into the sleeve inner-Ø without risk of collision in case the silentbloc / pivoting bearing in its final position has to protrude from the bearing bore.
   - The contact surface of the support sleeve must rest level on the supporting surface of the bearing housing. Please note that the minimum contact surface consists of two points which are level with each other and displaced by 180°.
   - Align the pressure sleeve so as to enable it to press against the silentbloc / pivoting bearing concentrically to the bearing outer-Ø.

   Mount the tool components identified as per instructions **3.4** with the new silentbloc / pivoting bearing on the bearing housing as shown in **Fig. 38**.

2. ⚠ **DANGER**

   When installing silentblocs / pivoting bearings by means of a bench press, there is the risk that the bench press could break and fall to pieces. This will lead to parts or the bench press becoming projectiles.

   - Observe and do not exceed the maximum load capacity of the bench press.
   - Use hydraulic pump with pressure gauge **KL-0040-2529**.
   - Only use Original KLANN spare parts.

   Operate the hydraulic pump of the bench press and install silentbloc / pivoting bearing **(Fig. 39).** During the installation process, read the required force on the pressure gauge of the hydraulic pump.

3. Stop the installation process as soon as the silentbloc / pivoting bearing has reached its correct position.
4. Dismount tool.

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Fig. 40: **Accessories: KL-0040-2590**

Fig. 41: **Accessories: KL-0040-2592**

Fig. 42: **Accessories: KL-0215-35 M25**

Scope of delivery

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

5. Care and Storage

ATTENTION Petroleum ether and chemical solvents can damage plastic parts. Always clean all parts after their use with a clean cloth only.
In order to protect against corrosion, lightly lubricate all metal parts after their use and store them in a clean and dry place.

6. Accessories

KL-0040-2590 Safety Belt for Hydraulic Cylinder 17 t

By fastening the safety belt **KL-0040-2590** to the vehicle and to the Hydraulic Cylinder **KL-0040-2500**, the latter is prevented from falling.

KL-0040-2592 Safety Belt for Mechanical Set

By fastening the safety belt **KL-0040-2592** to the vehicle and to the mechanical pulling device of the **KL-0039-..Series**, the latter is prevented from falling.

Scope of Delivery:

Part No.	Description	Qty.
KL-0040-2590	Safety Belt for Hydraulic Cylinder 17 t	1
KL-0040-2591	Safety Belt Adaptor for mechanical set	1

KL-0215-35 M25 Hydraulic Hand Pump

The hydraulic hand pump **KL-0215-35 M25** is used to drive the hydraulic cylinder **KL-0040-2500**.
Note: 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 an additional tonne scale matching our **KL-0040-2500** hydraulic cylinder (17 t).

7. Maintenance and Repair by the KLANN Service Centre

For safety reasons, as soon as damage is noticed on the silentboc tool, immediate steps must be taken to prevent it from being used. For professional checking and repair of the tool, please contact the KLANN Service Centre.
Address:
KLANN Spezial-Werkzeugbau-GmbH
Breslauerstr. 41
78166 Donaueschingen
Tel.: 0771 83 22 371
E-Mail: service.de@klann-online.de
For additional information concerning the use of our silentboc tool, please contact the KLANN Service Centre.

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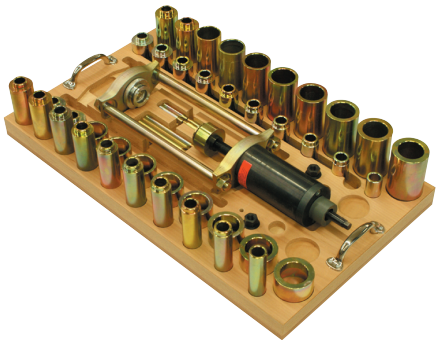
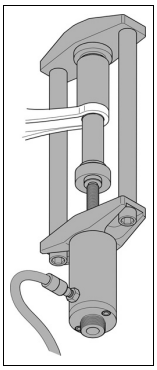
8. Components List

KL-0039-930 H Press Tool Set (short) with Hydraulic Cylinder 17 t





Universally suitable for silentblocs, lower and upper suspension ball joints, etc.

The press tool set **KL-0039-930 H** allows the quick, professional and safe removal and replacement of silentblocs, suspension ball joints, etc. with Ø 30 - 59 mm, directly on the vehicle without having to remove the axle or the wishbone. The hydraulic cylinder 17 t included in the set ensures the professional and trouble-free pressing-out of silentblocs or pivoting bearings.
The possibility to easily complement the tool set with other parts of the **KL-0039-.. Series**, such as pull spindles and adaptors, makes this press tool set almost universally applicable.

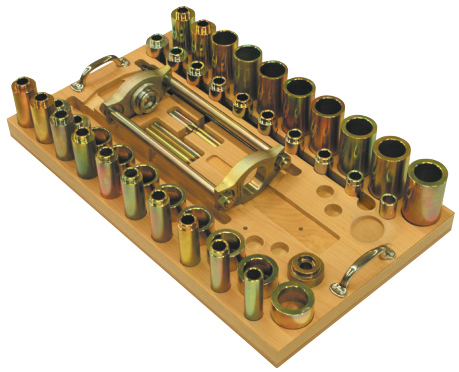
Technical Data:

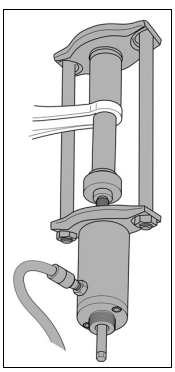
Inner Length (Press frame):	275 mm
Inner Width (Press frame):	115 mm
Max. load capacity press frame:	12 t
Max. load capacity hydraulic cylinder:	17 t

Scope of Delivery:
KL-0039-930 H Press Tool Set (short) with Hydraulic Cylinder 17 t

Part No.	Description	Qty.
KL-0039-1140	Press frame, short	1
KL-0040-2500	Hydraulic Cylinder 17t	1
KL-0039-1930	Pressure Spindle M20x350 with O-ring	1
KL-0039-1002	Retainer Adaptor for clamping nut and pressure spindle with O-ring	1
KL-0039-1601	Press/Support Sleeve Set (short)	1
KL-0039-1701	Press/Support Sleeve Set (long)	1
KL-0039-9000	Wooden Plate	1

KL-0039-931 H Press Tool Set (short) without Drive





Universally suitable for silentblocs, upper and lower suspension ball joints.

The press tool set **KL-0039-931 H** allows the quick, professional and safe removal and replacement of silentblocs, suspension ball joints, etc. with Ø 30 - 59 mm in-situ on the vehicle without having to remove the axle or the wishbone from the vehicle.
Using this tool set in combination with a hydraulic drive ensures professional and trouble-free extraction of silentblocs or pivoting bearings.
The possibility to easily complement the tool set with other parts of the **KL-0039-.., Series** such as a mechanical drive by pull spindle, makes this press tool set almost universal in its field of application.

Technical Date:

Inner length (press frame)	275 mm
Inner width (press frame)	115 mm
Max. load capacity of press frame:	12 t

Scope of Delivery:
KL-0039-931 H Press Tool Set (short) without drive

Part No.	Description	Qty.
KL-0039-1140	Press frame, short	1
KL-0039-1002	Retainer Adaptor for shoulder nut and pressure spindle with O-ring	1
KL-0039-1930	Pressure Spindle M20x350 with O-ring	1
KL-0039-1601	Press/Support Sleeve Set (short)	1
KL-0039-1701	Press/Support Sleeve Set (long)	1
KL-0039-9000	Wooden Plate	1

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Pulling Device for Silentbloc, Mechanical Drive — KL-0039-412 K

Universally suitable for silentblocs or pivoting bearings with Ø 40 - 71 mm

The pulling device **KL-0039-412 K** enables the quick, safe and professional removal and replacement of silentblocs and pivoting bearings.
The mechanical drive included in the set enables the pulling out of silentblocs and pivoting bearings as from a inner bore-Ø of 10 mm.
The possibility to easily complement the tool set with other parts of the **KL-0039-.. Series**, such as centring- and pressure rings or press-/support sleeves, makes this pulling device almost universally applicable, e.g. also for changing wheel bearings.
Optionally a hydraulic KLANN-Drive (10 t or 17 t) can be used if the silentblocs are very tight-fitting or heavily corroded.
The additional use of a press frame also enables the removal and replacement of, for example, suspension ball joints etc.

Scope of Delivery: KL-0039-412 K Pulling Device for silentblocs, mechanical drive

Part no.	Description	Qty
KL-0039-412	**Pulling Device for silentblocs, mechanical drive**	**1**
KL-0039-4129	Plastic storage case	1

Scope of Delivery: KL-0039-412 Pulling Device for silentblocs, mechanical drive

Part No.	Description	Qty
KL-0039-4121	**Pull Spindle Set with adaptors**	**1**
KL-0039-4122	**Press/Support Sleeve Set**	**1**

Scope of Delivery: KL-0039-4121 Pull Spindle Set with adaptors

Part No.	Description	Qty.
KL-0039-1011	Retainer adaptor for mechanical spindle	2
KL-0039-2010	Pull Spindle M10x1.25 with nuts	1
KL-0039-2014	Pull Spindle M14 with nuts	1
KL-0014-0030	Molybdenum sulphide paste 50g	1

Scope of Delivery: KL-0039-4122 Press/Support Sleeve Set

Part No.	Description	Qty.
KL-0039-1640	Press/Support sleeve short Ø40 mm	1
KL-0039-1650	Press/Support sleeve short Ø50 mm	1
KL-0039-1658	Press/Support sleeve short Ø58 mm	1
KL-0039-1666	Press/Support sleeve short Ø66 mm	1
KL-0039-1670	Press/Support sleeve short Ø70 mm	1
KL-0039-1680	Press/Support sleeve short Ø80 mm	1
KL-0039-1750	Press/Support sleeve short Ø50 mm	1
KL-0039-1760	Press/Support sleeve short Ø60 mm	1
KL-0039-1768	Press/Support sleeve short Ø68 mm	1
KL-0039-1776	Press/Support sleeve short Ø76 mm	1
KL-0039-1780	Press/Support sleeve short Ø80 mm	1

Press-/Support Sleeve Set Ø 30-90 mm (short) 45 mm — KL-0039-160

Designed to press in and press out silentblocs, shafts, bushes etc. Used in conjunction with the tools of the **KL-0039-.. Series**.

Scope of Delivery: KL-0039-160 Press-/Support Sleeve Set

Part No.	Description
KL-0039-1630	Press-/Support sleeve 30/Ø22
KL-0039-1632	Press-/Support sleeve Ø32/Ø24
KL-0039-1634	Press-/Support sleeve Ø34/Ø26
KL-0039-1636	Press-/Support sleeve Ø36/Ø28
KL-0039-1638	Press-/Support sleeve Ø38/Ø30
KL-0039-1640	Press-/Support sleeve Ø40/Ø32
KL-0039-1642	Press-/Support sleeve Ø42/Ø34
KL-0039-1644	Press-/Support sleeve Ø44/Ø36
KL-0039-1646	Press-/Support sleeve Ø46/Ø38
KL-0039-1648	Press-/Support sleeve Ø48/Ø40
KL-0039-1650	Press-/Support sleeve Ø50/Ø42
KL-0039-1652	Press-/Support sleeve Ø52/Ø44
KL-0039-1654	Press-/Support sleeve Ø54/Ø46
KL-0039-1656	Press-/Support sleeve Ø56/Ø48
KL-0039-1658	Press-/Support sleeve Ø58/Ø50
KL-0039-1660	Press-/Support sleeve Ø60/Ø52

Part No.	Description
KL-0039-1662	Press-/Support sleeve Ø62/Ø54
KL-0039-1664	Press-/Support sleeve Ø64/Ø56
KL-0039-1666	Press-/Support sleeve Ø66/Ø58
KL-0039-1668	Press-/Support sleeve Ø68/Ø60
KL-0039-1670	Press-/Support sleeve Ø70/Ø62
KL-0039-1672	Press-/Support sleeve Ø72/Ø64
KL-0039-1674	Press-/Support sleeve Ø74/Ø66
KL-0039-1676	Press-/Support sleeve Ø76/Ø68
KL-0039-1678	Press-/Support sleeve Ø78/Ø70
KL-0039-1680	Press-/Support sleeve Ø80/Ø72
KL-0039-1682	Press-/Support sleeve Ø82/Ø74
KL-0039-1684	Press-/Support sleeve Ø84/Ø76
KL-0039-1686	Press-/Support sleeve Ø86/Ø78
KL-0039-1688	Press-/Support sleeve Ø88/Ø80
KL-0039-1690	Press-/Support sleeve Ø90/Ø82

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KL-0039-170 Press-/Support Sleeve Set Ø 30-90 mm (long) 115 mm

Designed to press in and press out silentblocs, shafts, bushes etc. Used in conjunction with the tools of the **KL-0039-.. Series**.

Scope of Delivery: KL-0039-170 Press-/Support Sleeve Set Ø 30-90 mm

Part No.	Description
KL-0039-1730	Press-/Support sleeve Ø30/Ø22
KL-0039-1732	Press-/Support sleeve Ø32/Ø24
KL-0039-1734	Press-/Support sleeve Ø34/Ø26
KL-0039-1736	Press-/Support sleeve Ø36/Ø28
KL-0039-1738	Press-/Support sleeve Ø38/Ø30
KL-0039-1740	Press-/Support sleeve Ø40/Ø32
KL-0039-1742	Press-/Support sleeve Ø42/Ø34
KL-0039-1744	Press-/Support sleeve Ø44/Ø36
KL-0039-1746	Press-/Support sleeve Ø46/Ø38
KL-0039-1748	Press-/Support sleeve Ø48/Ø40
KL-0039-1750	Press-/Support sleeve Ø50/Ø42
KL-0039-1752	Press-/Support sleeve Ø52/Ø44
KL-0039-1754	Press-/Support sleeve Ø54/Ø46
KL-0039-1756	Press-/Support sleeve Ø56/Ø48
KL-0039-1758	Press-/Support sleeve Ø58/Ø50
KL-0039-1760	Press-/Support sleeve Ø60/Ø52

Part No.	Description
KL-0039-1762	Press-/Support sleeve Ø62/Ø54
KL-0039-1764	Press-/Support sleeve Ø64/Ø56
KL-0039-1766	Press-/Support sleeve Ø66/Ø58
KL-0039-1768	Press-/Support sleeve Ø68/Ø60
KL-0039-1770	Press-/Support sleeve Ø70/Ø62
KL-0039-1772	Press-/Support sleeve Ø72/Ø64
KL-0039-1774	Press-/Support sleeve Ø74/Ø66
KL-0039-1776	Press-/Support sleeve Ø76/Ø68
KL-0039-1778	Press-/Support sleeve Ø78/Ø70
KL-0039-1780	Press-/Support sleeve Ø80/Ø72
KL-0039-1782	Press-/Support sleeve Ø82/Ø74
KL-0039-1784	Press-/Support sleeve Ø84/Ø76
KL-0039-1786	Press-/Support sleeve Ø86/Ø78
KL-0039-1788	Press-/Support sleeve Ø88/Ø80
KL-0039-1790	Press-/Support sleeve Ø90/Ø82

KL-4999-22 Storage Container with Press- / Support Sleeves (long design)

Indispensable kit for pressing in and pressing out silentblocs, shafts, bushings etc. Used in conjunction with the tools of the **KL-0039-.. Series**.
The storage container **KL-4999-22** allows a clear and easy way of working with the wheel bearing tools of the **KL-0039-.. Series**

Scope of Delivery: KL-4999-22 Storage Container with Press- / Support Sleeves (long design)

Part No.	Description
KL-4999-221	Storage Container for Press- / Support Sleeves
KL-0039-1730	Press- / Support Sleeve Ø30/Ø22
KL-0039-1732	Press- / Support Sleeve Ø32/Ø24
KL-0039-1734	Press- / Support Sleeve Ø34/Ø26
KL-0039-1736	Press- / Support Sleeve Ø36/Ø28
KL-0039-1738	Press- / Support Sleeve Ø38/Ø30
KL-0039-1740	Press- / Support Sleeve Ø40/Ø32
KL-0039-1742	Press- / Support Sleeve Ø42/Ø34
KL-0039-1744	Press- / Support Sleeve Ø44/Ø36
KL-0039-1746	Press- / Support Sleeve Ø46/Ø38
KL-0039-1748	Press- / Support Sleeve Ø48/Ø40
KL-0039-1750	Press- / Support Sleeve Ø50/Ø42
KL-0039-1752	Press- / Support Sleeve Ø52/Ø44
KL-0039-1754	Press- / Support Sleeve Ø54/Ø46
KL-0039-1756	Press- / Support Sleeve Ø56/Ø48
KL-0039-1758	Press- / Support Sleeve Ø58/Ø50

Part No.	Description
KL-0039-1760	Press- / Support Sleeve I60/Ø52
KL-0039-1762	Press- / Support Sleeve I62/Ø54
KL-0039-1764	Press- / Support Sleeve Ø64/Ø56
KL-0039-1766	Press- / Support Sleeve Ø66/Ø58
KL-0039-1768	Press- / Support Sleeve Ø68/Ø60
KL-0039-1770	Press- / Support Sleeve Ø70/Ø62
KL-0039-1772	Press- / Support Sleeve Ø72/Ø64
KL-0039-1774	Press- / Support Sleeve Ø74/Ø66
KL-0039-1776	Press- / Support Sleeve Ø76/Ø68
KL-0039-1778	Press- / Support Sleeve Ø78/Ø70
KL-0039-1780	Press- / Support Sleeve Ø80/Ø72
KL-0039-1782	Press- / Support Sleeve Ø82/Ø74
KL-0039-1784	Press- / Support Sleeve Ø84/Ø76
KL-0039-1786	Press- / Support Sleeve Ø86/Ø78
KL-0039-1788	Press- / Support Sleeve Ø88/Ø80
KL-0039-1790	Press- / Support Sleeve Ø90/Ø82

KL-4999-23 Storage Container with Press- / Support Sleeves (short design)

Indispensable kit for pressing in and pressing out silentblocs, shafts, bushings etc. Used in conjunction with the tools of the **KL-0039-.. Series**.
The storage container **KL-4999-23** allows a clear and easy way of working with the wheel bearing tools of the **KL-0039-.. Series**

Scope of Delivery: KL-4999-23 Storage Container with Press- / Support Sleeves (short design)

Part No.	Description
KL-4999-221	Storage Container for Press- / Support Sleeves
KL-0039-1630	Press- / Support Sleeve Ø30/Ø22
KL-0039-1632	Press- / Support Sleeve Ø32/Ø24
KL-0039-1634	Press- / Support Sleeve Ø34/Ø26
KL-0039-1636	Press- / Support Sleeve Ø36/Ø28
KL-0039-1638	Press- / Support Sleeve Ø38/Ø30
KL-0039-1640	Press- / Support Sleeve Ø40/Ø32
KL-0039-1642	Press- / Support Sleeve Ø42/Ø34
KL-0039-1644	Press- / Support Sleeve Ø44/Ø36
KL-0039-1646	Press- / Support Sleeve Ø46/Ø38
KL-0039-1648	Press- / Support Sleeve Ø48/Ø40
KL-0039-1650	Press- / Support Sleeve Ø50/Ø42
KL-0039-1652	Press- / Support Sleeve Ø52/Ø44
KL-0039-1654	Press- / Support Sleeve Ø54/Ø46
KL-0039-1656	Press- / Support Sleeve Ø56/Ø48
KL-0039-1658	Press- / Support Sleeve Ø58/Ø50

Part No.	Description
KL-0039-1660	Press- / Support Sleeve Ø60/Ø52
KL-0039-1662	Press- / Support Sleeve Ø62/Ø54
KL-0039-1664	Press- / Support Sleeve Ø64/Ø56
KL-0039-1666	Press- / Support Sleeve Ø66/Ø58
KL-0039-1668	Press- / Support Sleeve Ø68/Ø60
KL-0039-1670	Press- / Support Sleeve Ø70/Ø62
KL-0039-1672	Press- / Support Sleeve Ø72/Ø64
KL-0039-1674	Press- / Support Sleeve Ø74/Ø66
KL-0039-1676	Press- / Support Sleeve Ø76/Ø68
KL-0039-1678	Press- / Support Sleeve Ø78/Ø70
KL-0039-1680	Press- / Support Sleeve Ø80/Ø72
KL-0039-1682	Press- / Support Sleeve Ø82/Ø74
KL-0039-1684	Press- / Support Sleeve Ø84/Ø76
KL-0039-1686	Press- / Support Sleeve Ø86/Ø78
KL-0039-1688	Press- / Support Sleeve Ø88/Ø80
KL-0039-1690	Press- / Support Sleeve Ø90/Ø82

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Storage Container with Drive Parts — KL-4999-20

The storage container **KL-4999-20** allows a clear and easy way of working with the wheel bearing / silentbloc tools of the **KL-0039-.. Series**.

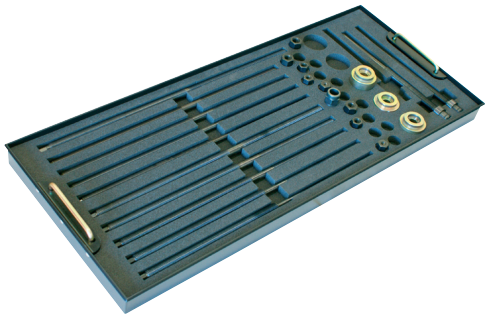
The drive parts included in this kit are used in conjunction with the tools of the **KL-0039-.. Series** for removing and installing bearings, bushings, joints etc.

Scope of Delivery:
KL-4999-20 - Storage Container with Drive Parts

Part No.	Description	Qty.
KL-4999-201	Storage container for drive parts	1
KL-4999-202	**Drive part tool set for storage container**	**1**

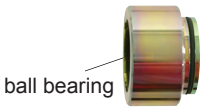
Scope of Delivery:
KL-4999-202 Drive Part Tool Set for Storage Container

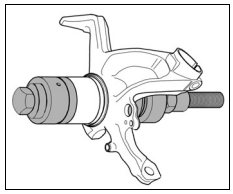
Part No.	Description	Qty.
KL-0039-1910-1	Pull spindle M10x1.25	1
KL-0039-1910-2	Shoulder nut M10x1.25	2
KL-0039-1912-1	Pull spindle M12	1
KL-0039-1912-2	Shoulder nut M12	2
KL-0039-1914-1	Pull spindle M14	1
KL-0039-1914-2	Shoulder nut M14	2
KL-0039-1916-1	Pull spindle M16	1
KL-0039-1916-2	Shoulder nut M16	2
KL-0039-1918-2	Shoulder nut M18	1
KL-0039-1920-1	Pull spindle M20	1
KL-0040-2245-1	Pull spindle M10x1.25	1
KL-0040-2244-1	Pull spindle M12x590	1
KL-0040-2243-1	Pull spindle M14x590	1
KL-0040-2242-1	Pull spindleM16x590	1
KL-0040-2545-1	Pull spindle M18	1
KL-0040-3009	Clamping nut	2
KL-0039-1002	Retainer adaptor for clamping nut and pressure spindle with O-ring	1
KL-0039-1003	Retainer adaptor for hydraulic cylinder with O-ring	1
KL-0039-1004	Retainer adaptor for pressure spindle Ø18 mm with O-ring	1
KL-0039-1011	Retainer adaptor for mechanical spindle	2
KL-0040-3008	Pull spindle	1
KL-0039-1930	Pressure spindle M20x350 with O-ring	1
KL-0040-2241	Pressure spindle M16	1



Retainer Adaptor for Mechanical Spindle — KL-0039-1011

This tool is necessary to retain the various **KL-0039-..** or **KL-0043-..** press/ support sleeves if these are to be inserted by using the mechanical drive.
The built-in ball bearing ensures accurate and professional working, even under intensive load.





Safety Belt for Mechanical Set — KL-0040-2592

By using the safety belt **KL-0040-2592** on the vehicle and on the mechanical pulling device of the **KL-0039-..Series**, the latter is prevented from falling.

Scope of Delivery:
KL-0040-2592 Safety Belt for Mechanical Set

Part No.	Description	Qty.
KL-0040-2590	Safety Belt for Hydraulic Cylinder 17t	1
KL-0040-2591	Safety Belt Adaptor for mechanical set	1

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KL-0039-2010 Pull Spindle M10x1.25 with Nuts

Technical Data:

Overall length:	395 mm
Max. load capacity:	5 t

Scope of Delivery:
KL-0039-2010 Pull Spindle M10x1.25, with nuts

Part No.	Description	Qty.
KL-0039-2010-1	Pull Spindle M10x1.25	1
KL-0039-1910-2	Shoulder nut M10x1.25	2

KL-0039-2012 Pull Spindle M12 with Nuts

Technical Data:

Overall length:	395 mm
Max. load capacity:	7 t

Scope of Delivery:
KL-0039-2012 Pull Spindle M12, with nuts

Part No.	Description	Qty.
KL-0039-2012-1	Pull Spindle M12	1
KL-0039-1912-2	Shoulder nut M12	2

KL-0039-2014 Pull Spindle M14 with Nuts

Technical Data:

Overall length:	395 mm
Max. load capacity:	9 t

Scope of Delivery:
KL-0039-2014 Pull Spindle M14, with nuts

Part No.	Description	Qty.
KL-0039-2014-1	Pull spindle M14	1
KL-0039-1914-2	Shoulder nut M14	2

KL-0039-2016 Pull Spindle M16 with Nuts

Technical Data:

Overall length:	395 mm
Max. load capacity:	13 t

Scope of Delivery:
KL-0039-2016 Pull Spindle M16, with nuts

Part No.	Description	Qty.
KL-0039-2016-1	Pull spindle M16	1
KL-0039-1916-2	Shoulder nut M16	2

KL-0039-2018 Pull Spindle M14 with Nuts

Technical Data:

Overall length:	395 mm
Max. load capacity:	16 t

Scope of Delivery:
KL-0039-2014 Pull Spindle M14, with nuts

Part No.	Description	Qty.
KL-0039-2014-1	Pull Spindle M18	1
KL-0039-1914-2	Shoulder nut M18	2

KL-0045-70 A Hydraulic Spindle 12 t with Press Piece and Adaptor

The KL-0045-70 A is a hydraulic spindle with a maximum admissible force of 120 kN (12 t) to fit a range of KLANN tool systems.

The tool consists of a high-quality steel body with two pistons inside, seal rings and various screw connections.

Scope of Delivery:
KL-0045-70 A Hydraulic Spindle 12 t with Press Piece and Adaptor

Part No.	Description	Qty.
KL-0045-7	Hydraulic spindle 12 t M42x2	1
KL-0174-552	Adaptor 2 ¼"-14 UNS to M42x2	1
KL-0045-7021	Adaptor Ø20.5 mm with O-ring	1

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Hydraulic Cylinder 10 t — KL-0040-2200

Due to its special design as a tubular cylinder, the hydraulic cylinder **KL-0040-2200** can be used to perform pulling or pressing functions according to the type of spindle chosen as an accessory.

Note:
A hydraulic pump is required to drive the Hydraulic Cylinder **KL-0040-2200.**

Technical Data:

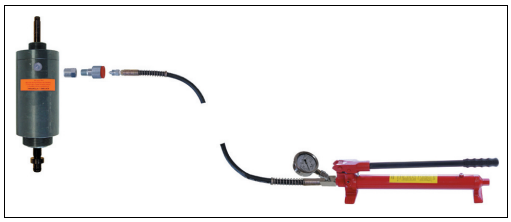
Maximum admissible force:	105.8 kN (10 t)
Maximum stroke:	45 mm
Maximum oil pressure:	700 bar
Maximum volume of oil:	75.91 cm³
Piston area:	15.11 cm²
Thread in tubular piston:	M16/Ø 16.5
Retaining thread pressure side:	2 ¼“-14 UNS
Retaining thread puller side:	M42×2
Cylinder outer diameter:	69 mm
Overall Length (piston retracted):	217.5 mm
Overall Length (psiton extended):	262.5 mm
Hydraulic fluid connection thread:	3/8“NPT
Weight:	4.65 kg

Hydraulic Cylinder 28 t — KL-0040-2800

Due to its special design as a tubular cylinder, the hydraulic cylinder **KL-0040-2800** can be used to perform pulling or pressing functions according to the type of spindle chosen as an accessory.

Application:
In conjunction with various KLANN tools, the hydraulic cylinder **KL-0040-2800** can be used for the removal and replacement of drive shafts, wheel hubs, wheel bearings, silentblocs and suspension ball joints.

Note:
A hydraulic pump is required to drive the hydraulic cylinder **KL-0040-2800.**



Technical Data:

Maximum admissible force:	285 kN (28 t)
Maximum stroke:	50 mm
Maximum volume of oil:	216.3 cm³
Maximum oil pressure:	700 bar
Piston area:	40.6 cm²
Thread in tubular piston:	M24
Retaining thread (pressure side):	2 ¾ “-16 UNS
Retaining thread (puller side):	M42×2
Cylinder outer diameter:	99 mm
Cylinder overall length (piston retracted):	235 mm
Cylinder overall length (piston extended):	285 mm
Hydraulic fluid connection thread:	3/8“NPT
Weight:	9.6 kg

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KL-0040-2500 Hydraulic-Cylinder 17 t

Due to its special design as a tubular piston cylinder and used in conjunction with various spindles, the hydraulic cylinder **KL-0040-2500** is suitable for pulling and pushing.

Application:
In conjunction with various KLANN tools, the hydraulic-cylinder **KL-0040-2500** can be used for the removal and replacement of drive shafts, wheel hubs, wheel bearings, silentblocs and suspension ball joints.

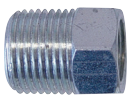
⚠ **Note:**
A hydraulic pump is required to drive the hydraulic cylinder **KL-0040-2500.**
For accessories such as coupling, hydraulic pump, dial gauge etc., please refer to chapter 4.

Technical Data:

Maximum admissible force:	170 kN (17 t)
Maximum stroke:	45 mm
Maximum oil pressure:	700 bar
Maximum volume of oil:	122 cm³
Piston area:	27 cm²
Thread in tubular piston:	M20
Retaining thread (pressure side):	2 ¼"-14 UNS
Retaining thread (pulling side):	M42×2
Cylinder outer diameter:	80 mm
Cylinder overall length (piston retracted):	202 mm
Cylinder overall length (piston extended):	247 mm
Hydraulic fluid connection thread:	3/8"NPT
Weight:	5.2 kg

Accessories for KL-0040-2500 Hydraulic Cylinder 17 t

KL-0040-... Adaptor 3/8"NPT to1/4"NPT



If an already available hydraulic hand pump is used as a drive for hydraulic cylinder **KL-0040-2500**, it is important that the hydraulic pump is fitted with a hose with a 3/8"NPT-connexion. If the pump and hose have other connecting dimensions, at the **KL-0040-Series** a thread will be needed.

KL-0040-2520 Adaptor 3/8"NPT to1/4"NPT

Suitable for e.g. KLANN, Longus, Rodcraft.

KL-0040-2521 Adaptor 3/8" NPT to M16×1.5

Suitable for Matra etc.

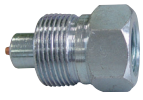
KL-0040-2522 Adaptor 3/8" NPT to M18×1.5

Suitable for Weber etc.

KL-0040-2523 Adaptor 3/8" NPT to G1/4"

Suitable for Nike etc.

KL-0215-321 Coupling Hose side 1/4" NPT



Technical Data:

Coupling:	1/4 "

KL-0215-322 Coupling Cylinder side

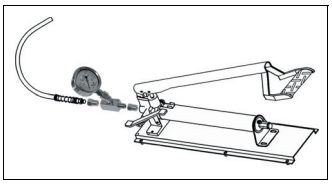
Technical Data:

Coupling:	1/4"

Pressure Gauge for KL-0040-2500 with Connection Thread 3/8“NPT — KL-0040-2528

Suitable for KL-0215-37 etc.

The pressure gauge can be connected between the hydraulic pump and the hose so that the hydraulic pressure can be checked during operation.
The pressure gauge is fitted with an additional tonne scale designed to match our hydraulic cylinder **KL-0040-2500**.

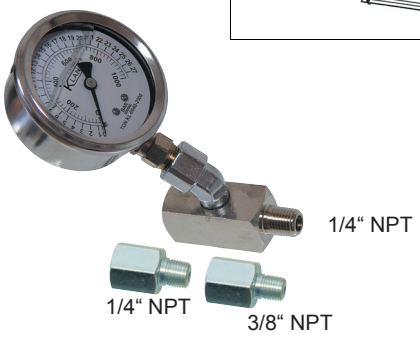


Technical Data:

Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	3/8“ NPT

Scope of Delivery:
KL-0040-2528 Pressure Gauge for KL-0040-2500 with Connection Thread 3/8“NPT

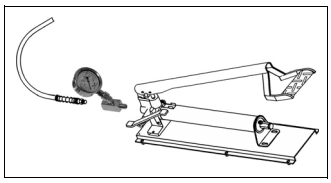
Part-No.	Description	Qty.
KL-0040-2529	Pressure gauge for KL-0040-2500 with 1/4" connector thread	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2524	Adaptor 1/4"NPT to 3/8"NPT	1



Pressure Gauge for KL-0040-2500 with Connection Thread 1/4“NPT — KL-0040-2529

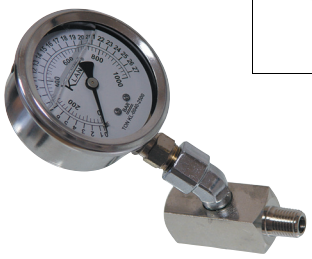
Intended for use with KL-0215-35 and KL-0215-36 etc.

The pressure gauge can be connected between the hydraulic pump and the hose so that the hydraulic pressure can be checked during operation.
The pressure gauge is fitted with an additional tonne scale designed to match our hydraulic cylinder **KL-0040-2500.**



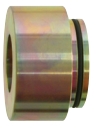
Technical Data:

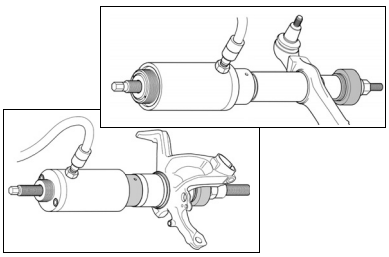
Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	1/4“ NPT



Retainer Adaptor for Clamping Nut and Pressure Spindle with O-ring — KL-0039-1002

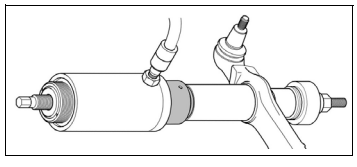
This adaptor is designed to retain the various press-/support sleeves of the **KL-0039-.. or KL-0043-..Series** .
Retaining-Ø for clamping nut or pressure spindle: 20 mm





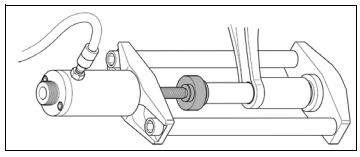
Retainer Adaptor for Hydr. Cyl. with O-ring — KL-0039-1003

This tool is necessary to retain the various **KL-0039-..** or **KL-0043-..** press-/ support sleeves if these are to be inserted by using the hydraulic cylinder **KL-0040-2500**. (Thread: M42x2)



Retainer Adaptor for Pressure Spindle Ø18mm with O-ring — KL-0039-1004

This tool is necessary to retain the various **KL-0039-..** or **KL-0043-..** press-/ support sleeves if these are to be inserted by using the hydraulic drive.



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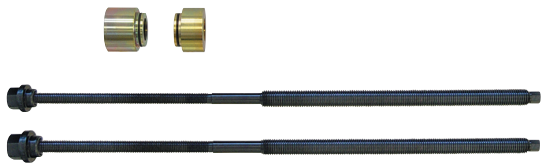
KL-0039-803 A Hydraulic Drive with Pull Spindle, without Hydraulic Cylinder



This tool is necessary to complement a mechanical pulling device such as **KL-0039-412-K** so that it can be driven by the hydraulic cylinder **KL-0040-2500**. It can also be used for pressing out and pressing in bushes and suspension ball joints.

Scope of delivery:
KL-0039-803 Hydraulic Drive with Pull Spindle, without Hydraulic Cylinder

Part No.	Description	Qty.
KL-0039-1910	Pull spindle M12, with nut	1
KL-0039-1914	Pull spindle M14, with nut	1
KL-0039-1002	Retainer adaptor for clamping nut and pressure spindle with O-ring	1
KL-0039-1003	Retainer adaptor for hydr. cyl. with O-ring	1

KL-0039-... Pull Spindles

Technical Data:

Overall length:	590 mm
Working travel:	390 mm

KL-0039-1910 Pull Spindle M10x1.25with Clamping Nut

Load max.:	5 t.

Scope of Delivery:
KL-0039-1910 Pull Spindle M10 with clamping nut

Part No.	Description	Qty.
KL-0039-1910-1	Pull Spindle M10x1.25	1
KL-0039-1910-2	Clamping NutM10x1.25	1

KL-0039-1912 Pull Spindle M12 with Clamping Nut

Load max.	7 t.

Scope of Delivery:
KL-0039-1912 Pull Spindle M12 with clamping nut

Part No.	Description	Qty.
KL-0039-1912-1	Pull Spindle M12	1
KL-0039-1912-2	Clamping Nut M12	1

KL-0039-1914 Pull Spindle M14 with Clamping Nut

Load max.	9 t.

Scope of Delivery:
KL-0039-1914 Pull Spindle M14 with clamping nut

Part No.	Description	Qty.
KL-0039-1914-1	Pull Spindle M14	1
KL-0039-1914-2	Clamping Nut M14	1

KL-0039-1916 Pull Spindle M16 with Clamping Nut

Load max.	13 t.

Scope of Delivery:
KL-0039-1916 Pull Spindle M16 with clamping nut

Part No.	Description	Qty.
KL-0039-1916-1	Pull Spindle M16	1
KL-0039-1916-2	Clamping Nut M16	1

KL-0039-1920 Pull Spindle M20 with Clamping Nut

Load max.:	20 t.

Scope of Delivery:
KL-0039-1920 Pull Spindle M20 with clamping nut

Part No.	Description	Quantity
KL-0039-1920-1	Pull Spindle M20	1
KL-0040-3009	Clamping Nut M20	1

KL-0039-1930 Pressure Spindle M20x350 with O-ring

Technical Data:

Pin-Ø:	20 mm
Overall length:	350 mm
Maximum load capacity:	20 t.

KL-0039-1931 Pressure Spindle M20x405 with O-ring

Technical Data:

Pin-Ø:	20 mm
Overall length:	405 mm
Maximum load capacity:	20 t.

Note:
Required e.g. for tool sets **KL-0610-11, -12, -13** and **KL-1615-11**.

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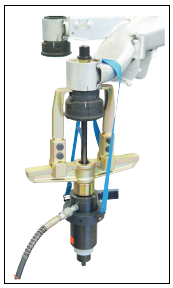
Safety Belt for Hydraulic Cylinder 17t — KL-0040-2590

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.

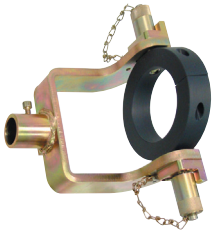


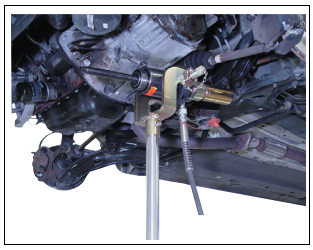
Retaining Device for Hydraulic Cylinder KL-0040-2500 — KL-0040-258

The retaining device **KL-0040-258** is used in conjunction with the transmission jack **KL-0145-10** thus enabling easy and trouble-free working with the KLANN-Tools that are driven by the hydraulic cylinder **KL-0040-2500**.

Scope of Delivery:
KL-0040-258 Retaining Device for Hydraulic Cylinder KL-0040-2500

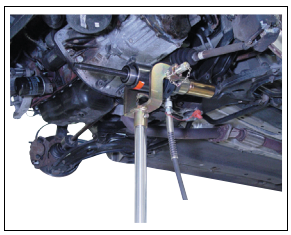
Part No.	Description	Qty.
KL-0040-2580	Retaining device without clamp ring	1
KL-0040-2587	Clamp ring for hydraulic cylinder	1





Adaptor Retaining Sleeve VW — KL-0040-2588

Necessary to use the retaining device **KL-0040-258** in conjunction with the VW-Transmission Jack.



Accessories for KL-0045-70 A Hydraulic Spindle 12t with Pressure Piece and Adaptor

Adaptor for Hydraulic Spindle — KL-0040-2593

The adaptor **KL-0040-2593** is designed to retain the hydraulic spindle **KL-0045-7** in the safety belt **KL-0040-2590** .

Safety Belt for Hydraulic Spindle — KL-0040-2594

By using the safety belt **KL-0040-2594** on the vehicle and on the hydraulic spindle **KL-0045-7** , the latter is prevented from falling.

Scope of Delivery:
KL-0040-2594 Safety Belt for Hydraulic Spindle

Part No.	Description	Qty.
KL-0040-2590	Safety Belt for Hydraulic Cylinder 17t	1
KL-0040-2593	Safety Belt Adaptor for Hydraulic Spindle	1

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Accessories for KL-0040-2200 Hydraulic Cylinder 10 t

KL-0040-2241 Press Spindle M16

Technical Data:

Length:	350 mm
Load max.:	13 t

KL-0040-2242 Pull Spindle M16 with nut

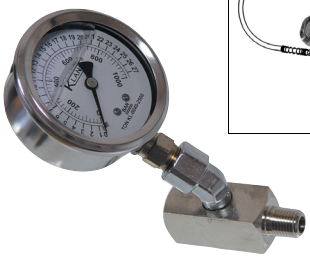
Technical Data:

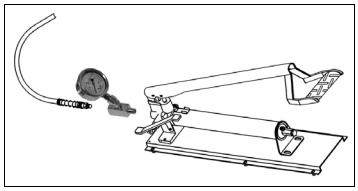
Length:	590 mm
Load max.:	13 t

Scope of Delivery:
KL-0040-2242 Pull Spindle M16 with nut

Part No.	Description	Qty.
KL-0040-2242-1	Pull spindle M16 x 590	1
KL-0039-1916-2	Shoulder Nut M16	1

KL-0040-2229 Pressure Gauge for KL-0040-2200 with connector thread 1/4“ NPT.



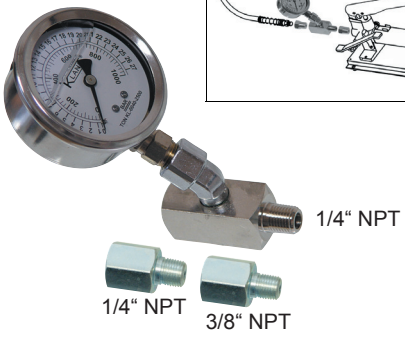


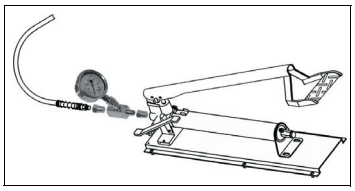
The pressure gauge can be connected between the hydraulic pump and the hose so that the hydraulic pressure can be checked during operation.
The pressure gauge is fitted with an additional tonne scale designed to match our hydraulic cylinder **KL-0040-2200**.

Technical Data:

Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	1/4“ NPT

KL-0040-2228 Pressure Gauge for KL-0040-2200 with connector thread 3/8“ NPT.





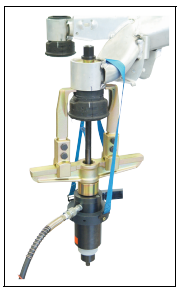
Technical Data:

Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	3/8“ NPT

Scope of Delivery:
KL-0040-2228 Pressure Gauge for KL-0040-2200 with connector thread

Part No.	Description	Qty.
KL-0040-2229	Pressure gauge for KL-0040-2200 with 1/4" NPT connector thread	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2524	Adaptor 1/4"NPT to 3/8"NPT	1

KL-0040-2290 Safety Belt for Hydraulic Cylinder 10t



By using the safety belt **KL-0040-2890** on the vehicle and on the Hydraulic Cylinder **KL-0040-2800**, the latter is prevented from falling off.

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Accessories for KL-0040-2800 Hydraulic Cylinder 28 t

Pressure Spindle M24 — KL-0040-2810

Technical Data:

Length:	405 mm
Maximum load capacity:	28 t

Pull Spindle M24 with clamping nut — KL-0040-2812

Suitable for hydraulic cylinder KL-0040-2800.

Technical Data:

Length:	590 mm
Maximum load capacity:	28 t

Scope of Delivery:
KL-0040-2812 Pull Spindle M24 with Clamping Nut

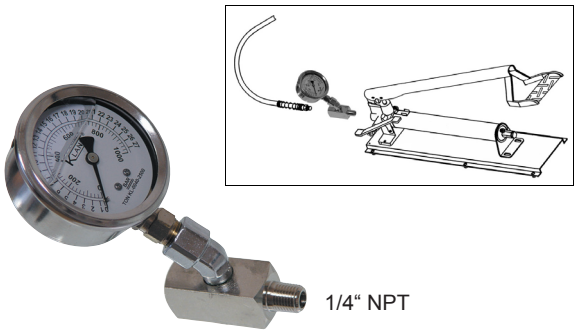
Part No.	Description	Qty.
KL-0040-2812-1	Pull Spindle M24x590	1
KL-0040-2812-3	Clamping Nut Ø40, M24 mm	1

Pressure Gauge for KL-0040-2800 with connector thread 1/4“ NPT. — KL-0040-2829

The pressure gauge can be connected between the hydraulic pump and the hose so that the hydraulic pressure can be checked during operation.
The pressure gauge is fitted with an additional tonne scale designed to match our hydraulic cylinder **KL-0040-2800**.

Technical Data:

Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	1/4“ NPT



Pressure Gauge for KL-0040-2800 with connector thread 3/8“ NPT. — KL-0040-2828

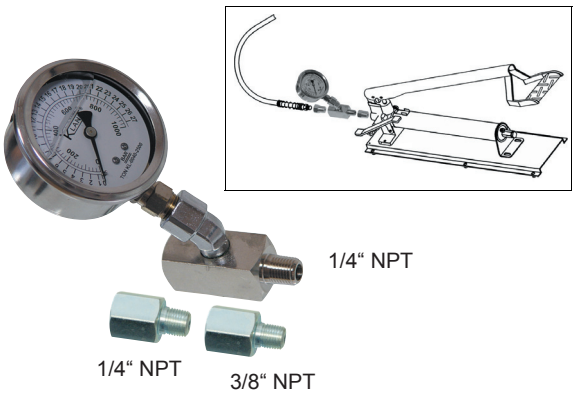
The pressure gauge can be connected between the hydraulic pump and the hose so that the hydraulic pressure can be checked during operation.
The pressure gauge is fitted with an additional tonne scale designed to match our hydraulic cylinder **KL-0040-2800.**

Technical Data:

Measuring Range:	1000 bar
Pressure gauge Ø:	71 mm
Connection thread:	3/8“ NPT

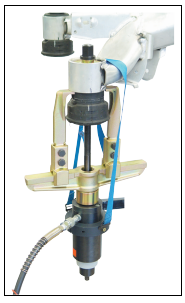
Scope of Delivery:
KL-0040-2828 Pressure Gauge for KL-0040-2800 with connector thread 3/8“ NPT.

Part No.	Description	Qty.
KL-0040-2829	Pressure gauge for KL-0040-2800 with 1/4" connector thread	1
KL-0040-2520	Adaptor 3/8"NPT to 1/4"NPT	1
KL-0040-2524	Adaptor 1/4"NPT to 3/8"NPT	1



Safety Belt for Hydraulic Cylinder 28t — KL-0040-2890

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.



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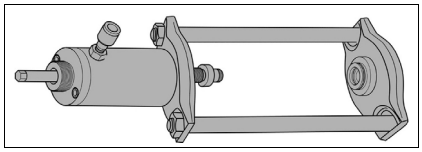
KL-0039-1140 Press Frame (short)



Short design, without drive.

Technical Data:

Inner width:	115 mm
Inner length:	275 mm
Maximum load capacity:	12 t.
Cylinder-thread:	2 1/4"-14 UNS
Weight:	4.7 kg

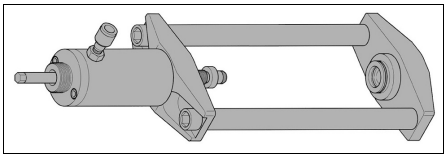
Scope of Delivery:
KL-0039-1140 Press Frame (short)

Part No.	Description	Qty.
KL-0039-114	Tie rods (pair) 285 mm long, with hex nuts	1
KL-0039-1144	Base plate 2¼"-14 UNS	2
KL-0039-1105	Adaptor 2 ¼-14UNS to Ø30 mm with O-ring	1

KL-0039-115 Tie Rods (Pair) 350mm long, with Hex Nuts

Used to retool the press frame **KL-0039-1140** to an inner length of 350 mm. Required, for example, when using a long press sleeve and a long support sleeve of the **KL-0039-17.. Series**.

KL-0039-1110 Press Frame (short)



Short design, without drive.

Technical Data:

Inner width:	135 mm
Inner length:	275 mm
Maximum load capacity:	17 t.
Cylinder-thread:	2 1/4"-14 UNS
Weight:	7.8 kg

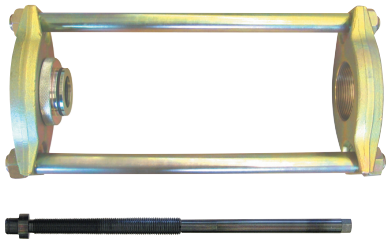
Scope of Delivery:
KL-0039-1110 Press Frame (short)

Part No.	Description	Qty.
KL-0039-1101	Base plate	2
KL-0039-111	Tie rods (pair) 285mm long with hexagon socket screws	1
KL-0039-1105	Adaptor 2 ¼-14UNS to Ø30 mm with O-ring	1

KL-0039-113 Tie Rods (Pair) 350mm long, with hexagon socket screws

Used to retool the press frame **KL-0039-1110** to an inner length of 350 mm. Required, for example, when using a long press sleeve and a long support sleeve of the **KL-0039-17.. Series**.

KL-0039-809 A Hydraulic Drive with Press Frame, without hydr.cyl.



This tool is necessary to complement a mechanical pulling device such as **KL-0039-412 K** so that it can be driven by the hydraulic cylinder **KL-0040-2500**. It can also be used for pressing out and pressing in bushes and suspension ball joints.

Scope of Delivery:
KL-0039-809 A Hydraulic Drive with press frame, without hydr.cyl.

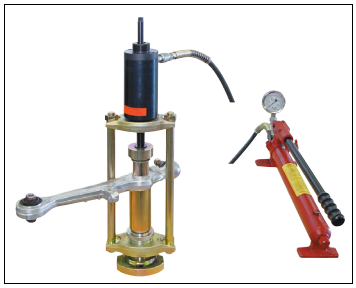
Part No.	Description	Qty.
KL-0039-803 A	Hydraulic drive with pull spindle, without hydraulic cylinder	1
KL-0039-1930	Pressure spindle M20x350 mm with O-ring	1
KL-0039-1140	Press Frame (short)	1

Mounting Bracket for Press Frame — KL-1000-03

This tool is used to fix the mobile 28 t press frame **KL-1000-01**, the 17 t press frame **KL-0043-900** or any other press frame of the **KL-0039-..series**.
Thus, the respective KLANN press frame can be used as a stationary bench press.

Technical Data:

Retaining thread:	2 1/4"-14 UNS

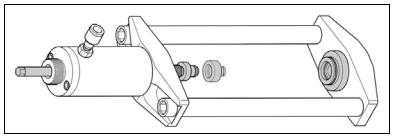


Adaptor M42x2 to Ø30 mm with O-Ring — KL-0039-1106

This adaptor is needed when the various press-/support sleeves of the **KL-0039-.. Series** are to be used in conjunction with the press frames of the **KL-0039-.. Series**.

Technical Data:

Thread:	M42x2 to Ø30 mm

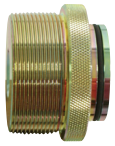


Adaptor 2 ¼-14UNS to Ø30 mm with O-Ring — KL-0039-1105

This adaptor is needed when the various press-/support sleeves of the **KL-0039-.. Series** are to be used in conjunction with the press frames of the **KL-0039-.. Series**.

Technical Data:

Thread:	2 1/4-14UNS to Ø30 mm



Adaptor 2¼"-14 UNS to 2¾"-16 UN — KL-0040-2855

This tool is necessary if a hydraulic cylinder with a 2¾" - 16 UN thread is to be used as drive for the KLANN hydraulic tool sets.

Technical Data:

External thread	2¼"-14 UNS
Internal thread	2¾"-16 UN

Note:
The external thread 2¼"-14 UNS measured on the tool set features an internal Ø of 55.15 mm. The internal thread 2¾"-16 UN measured on the hydraulic cylinder to be screwed in features an external Ø of 69.65 mm

Adaptor 2¼"-14UNS to 2¼"-14UNS — KL-0174-559

This adaptor is needed to operate the hydraulic cylinder **KL-0215-10** and/or **KL-0040-25** when using the perforated discs size 2 and size 3 of the **KL-0174-.. Series** with a pitch circle diameter of from 90 - 102 mm.

Adaptor 2¼"-16 UN to 2¼"-14 UNS — KL-0174-561

This tool is necesssary if the hydraulic cylinder **KL-0040-2500** is to be used as drive for a tool set with a 2¼"-16 UN thread.

Technical Data:

External thread:	2¼"-16 UN
Internal thread:	2¼"-14 UNS

Note:
The external thread 2¼"-16 UN measured on the tool set, has an internal-Ø of 55.15 mm
The internal thread 2¼"-14 UNS measured on the hydraulic cylinder to be screwed in, features an external-Ø of 56.95 mm

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KL-0174-562 Adaptor 2¾"-16 UN to 2¼"-14 UNS

Retaining thread of hydraulic cylinder

Retaining thread of tool set

This tool is required if the 17 t hydraulic cylinder **KL-0040-2500** or the 10 t hydraulic cylinder **KL-0040-2200** are to be used as drive for press frame **KL-1000-01** .

Technical Data:

External thread:	2¾"-16 UN
Internal thread:	2¼"-14 UNS

Note:
The external thread 2¾"-16 UN measured on the tool set, has an internal-Ø of 68.25 mm.
The internal thread 2¼"-14 UNS measured on the hydraulic cylinder to be screwed in, features an external-Ø of 56.95 mm

KL-0174-563 Adapter 2¼"-14 UN to Ø60 mm

Retaining thread of hydraulic cylinder

Retaining thread of tool set

Component for the assembly of a Puller from the Puller-Series KL-0174-...

Technical Data:

External thread:	2¼"-14 UNS
Internal thread:	Ø60 / Ø46 mm

Note:
2¼"-14 UNS measured on the tool set has internal Ø of 55.15 mm.
Locating bore specially designed for the adaptor KL-0039-1003.

KL-0174-565 Adaptor M68 x 2 to 2¼"-14UNS

Retaining thread of hydraulic cylinder

Retaining thread of tool set

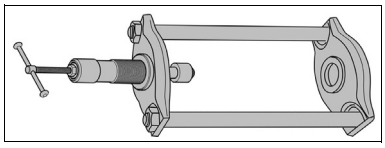
Spare Parts for the assembly of a Puller from the Puller-Series KL-0174-...

Technical Data:

External thread:	M68 x 2
Internal thread:	2¼"-14 UNS

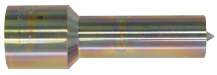
Note:
The external thread M68 x 2 measured on the tool set, has an internal-Ø of 65.85 mm.
The internal thread 2¼"-14 UNS measured on the hydraulic cylinder to be screwed in, features an external-Ø of 56.95 mm.

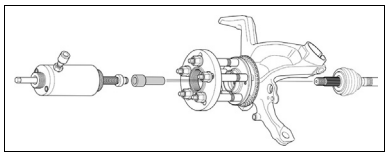
KL-0045-7021 Adaptor (pin Ø20 mm)



This tool is required when the various press-/ support sleeves of the **KL-0039-.. series** are to be inserted in conjunction with the hydraulic spindle **KL-0045-70**.

KL-0039-1935 Press Piece





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

Spezial-Werkzeugbau GmbH

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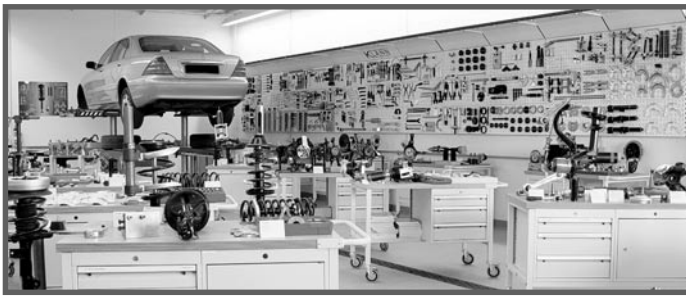
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