

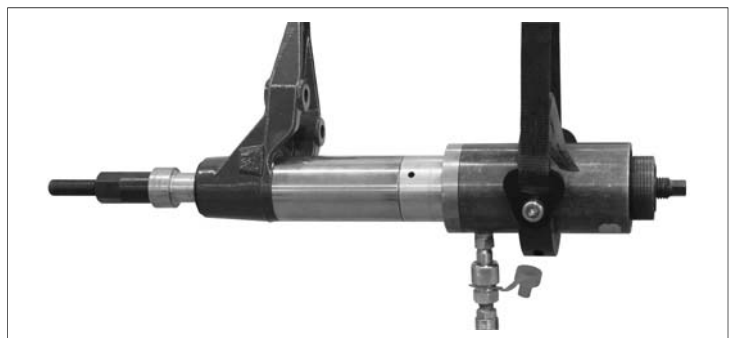
# GEDORE

TOOLS FOR LIFE

## Pulling Device with Hydraulic Cylinder



**KL-1002-22**  
**KL-1002-220**  
**KL-1002-221**



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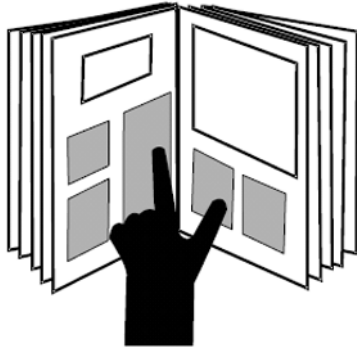
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English



3 – 9

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## 1. Essential Safety Notices

- ⚠** Before using the pulling device for silentbloc, it is imperative that you read and understand the instruction manual. Misuse can lead to **SERIOUS** or **FATAL INJURIES**.  
 This instruction manual is part of the pulling device. Store the instruction manual in a safe place for any further use and give it to the subsequent users of the pulling device.  
 All specific vehicle data stated herein are supplied under reserve and without commitment.

### 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
	<b>DANGER</b>	Indicates a hazardous situation which, if not avoided, may result in <b>serious or fatal injuries</b> .
	<b>CAUTION</b>	Indicates a hazardous situation which, if not avoided, may result in <b>moderate or minor injuries</b> .
	<b>ATTENTION</b>	Indicates a situation which, if not avoided, may result in possible damage to the pulling device or its functioning, or to objects in its vicinity.

#### **⚠ DANGER**

When removing and installing silentblocs, there is the risk that the tool could break and fall to pieces. This will lead to parts 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 GEDORE spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

#### **⚠ CAUTION**

A falling tool can cause injuries.

- Always wear safety shoes/boots.

#### **ATTENTION**

Risk of damage to vehicle and tool.

- 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.
- Only the vehicle manufacturer's data apply to any work that is carried out on the vehicle.

### 1.2 Personal Protective Equipment

**ALWAYS** wear personal protective equipment when using the pulling device. The pulling device 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 debris/objects must be worn when using the pulling device.

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



**SAFETY GLOVES** must be worn when using the pulling device.


- Working with the pulling device 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 pulling device.


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

### 1.3 Intended Use

-  The pulling device is designed only for the removal and installation of the silentblocs having a  $\varnothing$  of 40 mm (bead- $\varnothing$  50 mm).  
The pulling device may only be used in accordance with the instructions specified in this 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 pulling device:

-  Misuse can result in extremely severe injuries or even death.
- NEVER overload the pulling device.
  - Always check the pulling device prior to EACH use in order to ensure that it is in good order and condition.
  - Damaged or worn parts **MUST** be replaced prior to using the pulling device.
  - **ONLY** use the original spare parts and accessories from GEDORE on the pulling device.

### 1.5 Work Environment

Work with the pulling device 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 pulling device.

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

Fig. 1: KL-1002-22

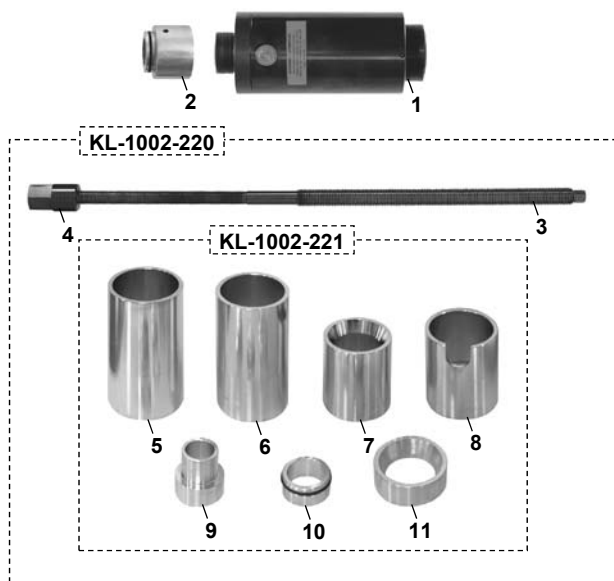


Fig. 2: Silentbloc



Fig. 3: Leaf spring and bearing bracket..

Leaf spring eye

Bearing bracket



Fig. 4: Hydraulic cylinder, pull spindle, adaptor.



Fig. 5: Fasten safety belt to hydraulic cylinder.



## 2. Product Description

### 2.1 KL-1002-22 Pulling Device with Hydraulic Cylinder, for Silentbloc Ø 40 mm

Suitable for Renault Midlum/Midlum 4x4.

The KL-1002-22 pulling device is used in conjunction with a hydraulic pump thus allowing for the quick, safe and professional removal and installation of the silentblocs with Ø 40 mm (bead-Ø 50 mm) that are found on leaf spring eyes or bearing brackets. Removal and installation of the silentblocs can be carried out on a work bench or in-situ on the vehicle if space conditions allow.

Pos.	Part No.	Description
1	KL-0040-2500	Hydraulic cylinder (17t)
2	KL-0039-1003	Retainer adaptor for hydraulic cylinder
3	KL-0039-1916-1	Pull spindle M16
4	KL-0039-1916-3	Shoulder nut M16
5	KL-0039-1762	Support sleeve (long), Ø 62 mm (for removing silentbloc from leaf spring)
6	KL-0039-1760	Support sleeve (long), Ø 60 mm (for removing silentbloc from bearing bracket)
7	KL-1002-2202-2	Support sleeve (long), Ø 40 mm (for installing silentbloc into bearing housing)
8	KL-1002-2204	Support sleeve (short), Ø 62 mm (for installing silentbloc)
9	KL-1002-2201	Pressure piece
10	KL-1002-2203	Centring ring, Ø 40 mm
11	KL-1002-2202-1	Support sleeve (short), Ø 40 mm (for installing silentbloc into long support sleeve)

### 2.2 Technical Data

Maximum load capacity of the hydraulic cylinder: ..... 17 t

Maximum load capacity of the pull spindle: ..... 13 t

## 3. Preparatory Work

Before the first commissioning of the pulling device for silentbloc, check and confirm you have all the parts listed in the scope of delivery. Then, read and follow the mounting instructions.

### 3.1 Checking the Delivery (Fig. 1)

### 3.2 Preparing the Vehicle

Loosen and/or remove components as may be necessary.

### 3.3 Preparing the Tool.

1. Screw pull spindle "3" into hydraulic cylinder "1". Screw retainer adaptor "2" onto hydraulic cylinder "1" (Fig. 4).
2. Fasten safety belt KL-0040-2590 (accessory) to hydraulic cylinder "1" (Fig. 5).

Fig. 6: Removing the silentbloc.

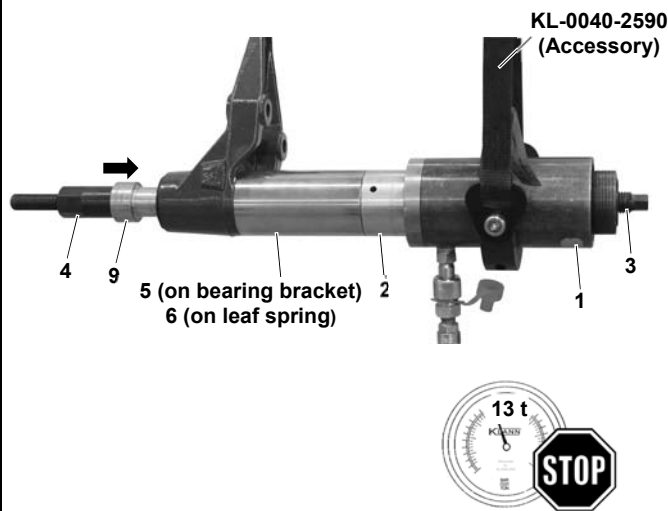


Fig. 7: Lubricating the silentbloc.



Fig. 8: Assembling the support sleeves.

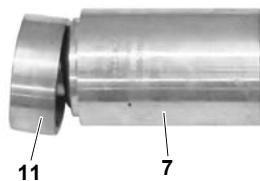
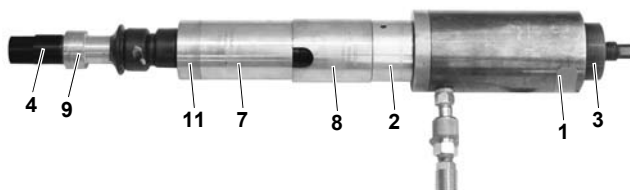


Fig. 9: Assembling the tool.



## 4. Silentbloc Removal/ Silentbloc Installation

The following instructions describe the procedure of removing and installing the specified silentbloc on a leaf spring bearing bracket.

### 4.1 Silentbloc Removal.

#### 1. ATTENTION

Risk of damage to support sleeve "5" (bearing bracket) or support sleeve "6" (leaf spring).

- Be sure to align the support sleeve "5" or support sleeve "6" so as to enable the silentbloc to be removed without touching the sleeve.

Assemble/mount tool as shown in Fig. 6.

2. Connect hydraulic cylinder "1" to hydraulic pump (accessory).

3. Use safety belt KL-0040-2590 (accessory) to prevent tool from falling.

#### 4. DANGER

When removing silentblocs, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts 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 GEDORE spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

#### ATTENTION

Risk of damage to pressure piece "9", support sleeve "5" or support sleeve "6".

- Make sure that pressure piece "9" and support sleeve "5" or "6" are positioned correctly.

**Note:** Remember that the piston stroke of the hydraulic cylinder "1" is 45 mm. If the piston stroke is insufficient, release pressure on hydraulic cylinder, retighten shoulder nut "4", then continue removal process.

Operate hydraulic pump and remove silentbloc.

During the removal process, read and observe the force indicated on the pressure gauge of the hydraulic pump.

### 4.2 Silentbloc Installation.

#### Pre-tensioning the Silentbloc.

#### 1. ATTENTION

Risk of damage to silentbloc, support sleeves "11" and "7".

- Grease the inner faces of support sleeves "11" and "7" with an appropriate lubricant.
- Grease silentbloc with an appropriate lubricant. (Fig. 7)
- Place support sleeve "11" onto support sleeve "7". (Fig. 8)

#### 2. ATTENTION

Risk of damage to support sleeve "11", support sleeves "7" and "8", and silentbloc.

- Be sure to fit support sleeve "11", support sleeves "7" and "8", and silentloc in the correct order and in true alignment.
- Assemble/mount tool as shown in Fig. 9.

3. Connect hydraulic cylinder "1" to hydraulic pump (accessory).

Fig. 10: Pre-tensioning the silentbloc.

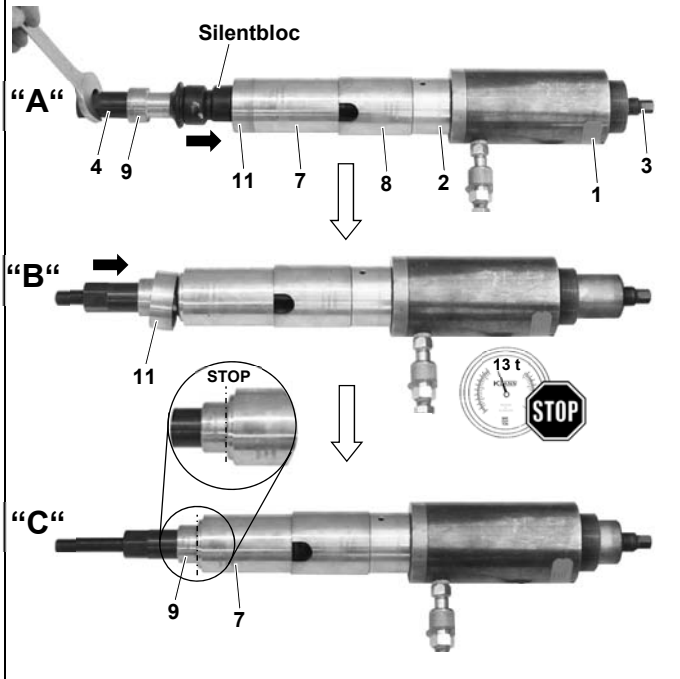


Fig. 11: Turn support sleeve 180° and insert centring ring.

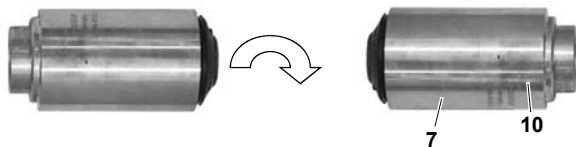


Fig. 12: Installing the silentbloc.

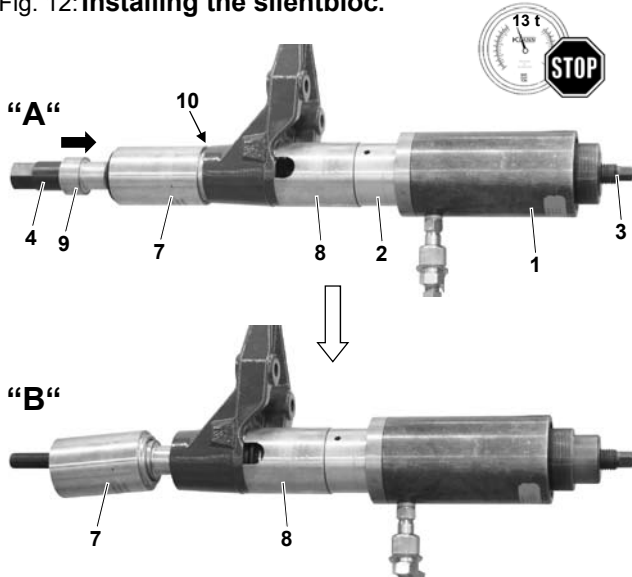
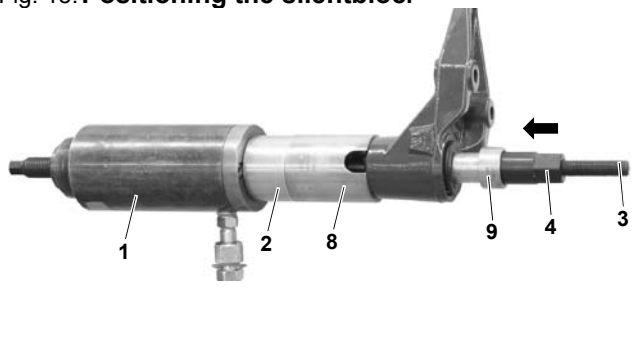


Fig. 13: Positioning the silentbloc.



#### 4. **DANGER**

When pre-tensioning silentblocs, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts 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 GEDORE spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

#### ATTENTION

Risk of damage to pressure piece "9", support sleeves "11" and "7".

- Make sure that pressure piece "9" as well as support sleeves "11" and "7" are positioned correctly.

By turning shoulder nut "4", insert silentbloc into support sleeves "11" and "7" as far as it will go. (Fig. 10 A)

**Note:** Remember that the piston stroke of the hydraulic cylinder "1" is 45 mm. If the piston stroke is insufficient, release pressure on hydraulic cylinder, retighten shoulder nut "4", then continue pre-tension process.

Operate hydraulic pump and insert silentbloc into support sleeve "7" until support sleeve "11" comes loose and can be removed. (Fig. 10 B)

Continue inserting the silentbloc into support sleeve "7" until the groove in pressure piece "9" and the edge of support sleeve "7" are in true alignment. (Fig. 10 C)

During the pre-tension process, read and observe the force indicated on the pressure gauge of the hydraulic pump.

5. Remove/disassemble tool. Turn support sleeve "7" 180°, then insert centring ring "10" in support sleeve "7". (Fig. 11)

#### Installing the Silentbloc.

1. **ATTENTION** Risk of damage to support sleeves "7" and "8", and centring ring "10".

- Be sure to fit support sleeves "7" and "8" as well as centring "10" in the correct order and in true alignment.

Mount tool on locating bore as shown in Fig. 12 A.

Observe the position and direction of installation of the silentbloc specified by the vehicle manufacturer.

2. Connect hydraulic cylinder "1" to hydraulic pump (accessory).

#### 3. **DANGER**

When installing silentblocs, there is the risk that the pull spindle could break and fall to pieces. This will lead to parts 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 GEDORE spare parts.
- Always keep all parts of your body away from the axial extension of the pull spindle.

**Note:** Remember that the piston stroke of the hydraulic cylinder "1" is 45 mm. If the piston stroke is insufficient, release pressure on hydraulic cylinder, retighten shoulder nut "4", then continue installation process.

Operate hydraulic pump and insert silentbloc until support sleeve "7" comes loose from the silentbloc. (Fig. 12 B)

During the installation process, read and observe the force indicated on the pressure gauge of the hydraulic pump.

4. Remove tool.

#### Positioning the Silentbloc.

1. Turn tool 180° and mount it to leaf spring bearing bracket as shown in Fig. 13. Make sure that pressure piece "9" and support sleeve "8" are positioned correctly.
2. Connect hydraulic cylinder "1" to hydraulic pump (accessory).
3. Operate hydraulic pump until silentbloc is positioned correctly.
4. Remove tool.



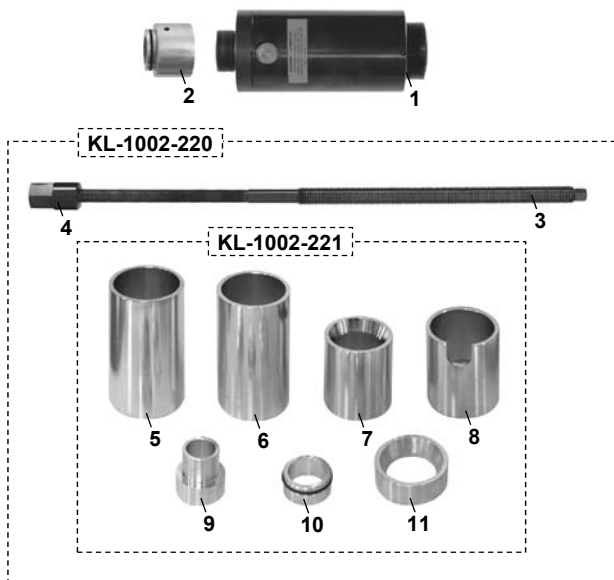
Fig. 14: Accessory: KL-0215-35 M25



Fig. 15: Accessory: KL-0040-2590



Fig. 16: Spare parts: KL-1002-22



## 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-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 a tonne scale specifically adapted to our **KL-0040-2500** hydraulic cylinder (17 t).

### KL-0040-2590 Safety Belt

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.

## 7. Maintenance and Repair by the GEDORE Service Centre

For safety reasons, as soon as damage is noticed on the pulling device, immediate steps must be taken to prevent it from being used. For professional inspection and repair of the tool, please contact the GEDORE Service Centre.

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Breslauerstr. 41

DE-78166 Donaueschingen  
Phone: +49 (0)771 83 22 371

Email: [info@gedore-automotive.com](mailto:info@gedore-automotive.com)

For additional information concerning the use of our pulling device, please contact the GEDORE Service Centre.

## 8. Spare Parts List

Pos.	Part No.	Description	Qty.
	<b>KL-1002-22</b>	<b>Pulling Device with Hydraulic Cylinder, for Silentbloc with Ø 40 mm</b>	<b>1</b>
<i>composed of:</i>			
	<b>KL-1002-220</b>	<b>Pulling Device without Hydraulic Cylinder, for Silentbloc with Ø 40 mm</b>	<b>1</b>
1	KL-0040-2500	Hydraulic cylinder	1
2	KL-0039-1003	Retainer adaptor for hydraulic cylinder	1

Pos.	Part No.	Description	Qty.
	<b>KL-1002-220</b>	<b>Pulling Device without Hydraulic Cylinder, for Silentbloc with Ø 40 mm</b>	<b>1</b>
<i>composed of:</i>			
	<b>KL-1002-221</b>	<b>Pressure Piece/Sleeve Set, for Silentbloc Ø 40 mm</b>	<b>1</b>
3	KL-0039-1916-1	Pull spindle M16	1
4	KL-0039-1916-3	Shoulder nut M16	1

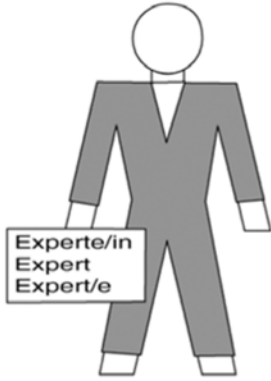
Pos.	Part No.	Description	Qty.
	<b>KL-1002-221</b>	<b>Pressure Piece/Sleeve Set, for Silentbloc Ø 40 mm</b>	<b>1</b>
<i>composed of:</i>			
5	KL-0039-1762	Support sleeve, long, Ø 62 mm	1
6	KL-0039-1760	Support Sleeve, long, Ø 60 mm	1
7	KL-1002-2202-2	Support sleeve, long, Ø 40 mm	1
8	KL-1002-2204	Support sleeve, short, Ø 62 mm	1
9	KL-1002-2201	Pressure piece	1
10	KL-1002-2203	Centring ring Ø40 mm	1
11	KL-1002-2202-1	Support sleeve, short, Ø 40 mm	1

## 9. Environmentally Safe Disposal

Recycle/dispose of the pulling device and its packaging material in compliance with the legal rules and regulations in force.



- 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**

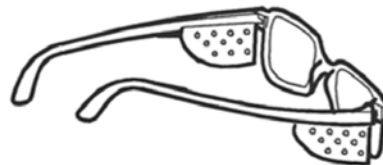
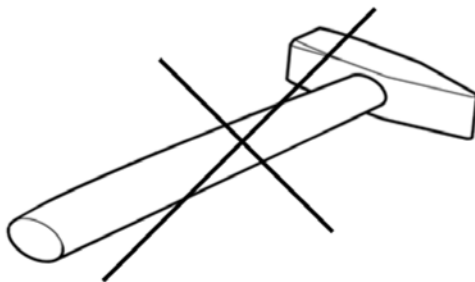
- Werkzeug mit Sicherheitshaltegurt gegen Herunterfallen sichern.
- Schutzausrüstungsvorgaben der Berufsgenossenschaft beachten.

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**



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formerly

**KLANN** 

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