

KL-1001-101 A

Sleeve set for commercial vehicle silent blocks 57 + 68mm Ø







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1. FOR YOUR SAFETY 🛕 🚱

Read and understand these operating instructions **before** using the extraction device and observe all safety and warning instructions. Misuse can result in **DEATH** or **SEVERE INJURIES** !

These operating instructions are an integral part of the extraction device. Keep them at a safe place for future reference, and always pass them on to subsequent users of the extraction device.

The extraction device complies with the recognised rules of technology as well as the relevant safety regulations.

1.1 Target group

These operating instructions are **exclusively** intended for skilled personnel in specialised motor vehicle workshops.

The extraction device **may only be** used by skilled personnel in specialised motor vehicle workshops who are familiar with basic regulations on work safety and accident prevention.

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Never allow unauthorised, inexperienced persons, minors and children, or persons with limited physical, sensory, and mental abilities to use the extraction device.

1.2 Intended use

The extraction device ...

may only be used for removal and installation of closed silent blocks.

- **may only** be used on silent blocks and vehicles as described in **Chapter 2. Product description**.
- may only be used to a max. load of 17 tons.
- may only be used with a manually operated GEDORE Automotive hydraulic cylinder/pump combination with manometer for safe pressure control.
- **may only** be used in the way described in these operating instructions!

Any other use can result in **DEATH** or **SEVERE INJURIES** !

1.3 Reasonably foreseeable misuse

The pulling device ...

- **must never** be used with a <u>machine-operated</u> drive or a <u>machine-operated</u> hydraulic cylinder/pump combination!
- **must never** be used for batch processing (numerous removal and installation processes within a few minutes)!
- **must never** be used with a bridged, modified, or removed safety device!
- must never be used without a securing device against falling!
- **must never** be modified, converted, or used for other purposes without authorisation!

The extraction device <u>may only</u> be used in the way described in **Chapter 1.2 - Intended use**! Any other use can result in **DEATH** or **SEVERE INJURIES**!

1.4 Personal protective equipment

For your safety, **always** wear personal protective equipment when using the extraction device! The extraction device can bring about mechanical hazards, such as crushing, cutting, and shock injuries.



Always wear EYE PROTECTION (see DIN EN 166, OSHA 29 CFR 1910.133, ANSI Z87) when using the extraction device to protect yourself against flying parts or particles.



Always wear PROTECTIVE GLOVES (see DIN EN 388, OSHA 29 CFR 1910.138, ANSI 105) when using the extraction device to protect yourself against sharp edges and crushing between parts.

When working with the extraction device, sharp edges and crushing between parts can cause **SEVERE INJURIES** to your **hands**!



Always wear SAFETY SHOES (see DIN EN ISO 20345, OSHA 29 CFR 1910.136, ANSI Z41) when using the support device to protect yourself against falling parts.

When working with the extraction device, falling parts can cause **SEVERE INJURIES** to your **feet and toes**!

1.5 Labelling of the warnings

Warnings are used to warn of possible dangers.

Always read and observe these warnings to avoid DEATH or INJURIES!

For better	For better differentiation, warnings in these operating instructions are classified as follows:				
Warning sign	Meaning				
AWARNING	Indicates a hazardous situation which, if not avoided, could cause DEATH or SEVERE INJURIES .				
	Indicates a hazardous situation which, if not avoided, could cause MODERATE or MINOR INJURIES .				
ATTENTION	Indicates a situation which, if not avoided, can cause damage to the tool or an object in its vicinity.				
í	Note on important information and useful tips.				

1.6 Basic warnings

AWARNING - Danger to life from MISUSE

The extraction device can break if used incorrectly, thus flinging fragments and parts can lead to **DEATH** or **SERIOUS INJURIES**!

- Read and understand these operating instructions before using the extraction device and always observe all safety and warning instructions when using the tool.
- **Conly** use the support device as described in these operating instructions.
- **Vever** use the extraction device for batch processing (Numerous removal and installation processes within a few minutes)!
- **Never** beat the support device with a hammer or anything similar!
- **Always** wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

AWARNING - Danger to life from OVERLOAD

The extraction device can break if used incorrectly, thus flinging fragments and parts can lead to **DEATH** or **SERIOUS INJURIES**!

- ▼ Always observe the max. load when using the extraction device, and never exceed it!
- **Vever** use the extraction device with a <u>machine-operated</u> drive or a <u>machine-operated</u> hydraulic cylinder / pump combination!
- ▼ Use the extraction device **exclusively** with a <u>manually</u> operated **GEDORE Automotive** hydraulic cylinder / pump combination with a manometer for reliable pressure control!
- **Never** use the extraction device when it is damaged.
- **Always** wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

AWARNING - Danger of injury from FALLING

The extraction device can fall down during preparation or use; falling parts can lead to SEVERE INJURIES of the feet!

- ▼ Avoid dropping the extraction device **at all times**, **especially** when it is under load!
- **Always** deposit the extraction device safely to prevent falling down, for example on a clean workbench!
- ▼ Always make sure that the extraction device is securely attached to the vehicle!
- ✓ Always secure the extraction device at the vehicle against falling, for example using the safety retaining belt KL-0040-2590 or the mounting device KL-0040-258 A!
- ▼ Never leave the extraction device unattended on the vehicle!
- **Always** wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

ATTENTION - Risk of DAMAGE

The vehicle, the silent block, and the extraction device can be damaged.

- **Always** observe the vehicle-specific application procedures in the vehicle manufacturer's repair guide.
- Always observe the installation position of the silent block specified by the vehicle manufacturer!



1.7 Basic safety instructions

For your safety, **always** observe the following safety instructions and precautions when using the extraction device in order to avoid injuries and material damage as a consequence of misuse and unsafe handling.

- Read and understand these operating instructions before using the extraction device and always observe all safety and warning instructions when using the tool.
- Always observe the vehicle-specific application procedures in the vehicle manufacturer's repair guide.
- **Always** work on the vehicle in accordance with the basic regulations on work safety and accident prevention.
- In case of skin contact with hydraulic oil, clean the affected area immediately with fat-dissolving soap and water.
- **Vever** use the extraction device when you are tired or under the influence of alcohol, drugs, or medication!
- Check the extraction device **before each use** for damage and loose parts.
- **Never** use the extraction device if it is damaged or has loose parts!
- ▼ Use only genuine GEDORE Automotive spare parts and accessories.
- Due to its high weight, always carry, lift, and position the extraction device with the help of a second skilled person.
- While working with the extraction device, make **absolutely** sure that **no** other persons are present in the direct working area.
- ▼ Always observe the max. load when using the extraction device, and never exceed it!
- ▶ Always keep hair, clothing, and gloves away from moving parts.
- **Never** use the extraction device with a <u>machine-operated</u> drive or a <u>machine-operated</u> hydraulic cylinder / pump combination!
- ▼ Use the extraction device **exclusively** with a <u>manually</u> operated **GEDORE Automotive** hydraulic cylinder / pump combination with a manometer for reliable pressure control!
- Always use the extraction device as intended; non-compliance will invalidate any warranty claim and may significantly reduce its durability.
- **Always** wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working.
- ✓Interrupt your work immediately if you are unsure about using the extraction device, and contact GEDORE Automotive GmbH if necessary!

1.8 Obligations of the owner

The owner of the outrigger **must** ensure that **only** trained personnel in specialised vehicle workshops use the extraction device.

The owner of the extraction device **must** ensure that the operating instructions are available to the user and that the user has completely read and understood the operating instructions **before** using the extraction device.

The owner of the extraction device **must** ensure that personal protective equipment is available to the user of the extraction device.

The owner of the extraction device **must** ensure that the user of the extraction device is familiar with the basic regulations on work safety and accident prevention.



1.9 Work environment

For your safety, **only** use the extraction device in a safe working environment.

- The workplace **must** be clean and tidy.
- The workplace **must** be sufficiently large and illuminated.
- The workplace **must** be located on a solid and non-skidding floor.
- The workplace **must** be safeguarded against access of unauthorised persons.
- ▼The workplace must have a room temperature between -10°C and +40°C.

1.10 Emissions

Hydraulic oil can drip when using the extraction device and thus pose a hazard to the environment.

- FImmediately remove leaking hydraulic oil with the aid of oil binding agents or a rag, for example.
- Dispose of pollutants such as hydraulic oil in an **environmentally friendly** manner.
- Safety data sheets according to the (EC) Ordinance No. 1907/2006, about hydraulic oil (HLP 32) can be found on the Internet (World Wide Web).

1.11 Maintenance

Always carry out maintenance on the extraction device when it is depressurised/tension-free.

Before each use of the extraction device, check the spindle for dirt and damage; clean it if necessary and lubricate it exclusively with molybdenum disulphide paste. (For example, GEDORE Automotive molybdenum disulphide paste - KL-0014-0030)

1.12 Troubleshooting

Always troubleshoot the extraction device when it is depressurised/tension-free.

Problem: Hydraulic oil escapes from the hydraulic coupling between hydraulic cylinder and hand pump.

Reason: Hydraulic coupling soiled or loose.

Remedy: Clean and retighten the hydraulic coupling. Top up lacking hydraulic oil (HLP 32) at the hand pump.

Problem: The hydraulic hand pump does not build up pressure or only very slowly.

Reason: The pressure release valve on the hydraulic hand pump is open or hydraulic oil is missing.

Remedy: Close the pressure release valve on the hydraulic pump completely. Top up lacking hydraulic oil (**HLP 32**) at the hydraulic hand pump.

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2. PRODUCT DESCRIPTION

2.1 KL-1001-101 A - Sleeve set for commercial vehicle silent blocks 57 + 68 mm diameter

Suitable for silent blocks with bores of 57 + 68 mm diameter. Particularly suitable e.g. for parabolic control arms on ROR, SAF, Trailor trailers and semi-trailers, and BPW semi-trailers with ECO PLUS 2 axle and compressed-air suspension. The sleeve set enables the quick and professional removal and installation of closed silent blocks, e.g. on parabolic control arms, stabilisers, thrust struts, leaf spring eyes, spring brackets, and other axle suspension parts.

Recommended accessories:

KL-1010-1205 - Thrust piece 59 mm diameter (for BPW silent blocks with 60 mm bore diameter and M24 screw)

(1)Only in combination with the required drive parts, the sleeve set makes a extraction device for commercial vehicle silent blocks.



2.2 Scope of delivery / Overview of the single parts

ltem	Part no.	Description	Qty.
A1	KL-1001-1003	Thrust piece 66mm Ø	1
A2	KL-1001-1013	Thrust piece 55mm Ø	1
В	KL-1010-1001	Support sleeve, long (removal)	1
С	KL-1010-1006	Support sleeve, short (installation)	1

2.3 Specifications

Max. load of hydraulic cylinder - KL-0040-2500:171	:
Max. load of sleeve set:	t

Operating instructions

(Translation of the operating instructions)



2.4 Accessories

KL-1010-1205 Thrust piece 59mm Ø

Fits BPW axles with a silent block hole diameter of 60 mm and M24 mounting screw.

The thrust piece allows quick and professional removal and installation of closed silent blocks on BPW axles.

Iten	n Part no.	Description	Qty.
A3	KL-1010-1205	Thrust piece 59mm Ø	1

3. PREPARATIONS

AWARNING

The extraction device may break during use, fall down, and fly about; this may result in **DEATH** or **SERIOUS INJURIES**!

- Carefully check the extraction device for damage **before each** use.
- ▼ Never use the extraction device when it is damaged.
- ✓ Use only genuine GEDORE Automotive spare parts and accessories.
- Always wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

3.1 Checking the scope of delivery

Prior to using the extraction device, check that all parts of the scope of delivery are available. Follow the instructions below.

3.2 Required drive parts

The extraction device may break if a machine-operated drive is used; ejected parts may lead to **DEATH** or **SERIOUS INJURIES**!

✓Use the extraction device exclusively with a <u>manually</u> operated GEDORE Automotive hydraulic cylinder / pump combination with a manometer for reliable pressure control!

Assemble the required drive parts as shown in **Chapter 2.1**. (i) Drive parts, see GEDORE-Automotive main catalogue.

3.4 Preparing the tool

- 1. Prepare the hydraulic cylinder [Z2] accordingly. For this, screw the draw spindle [Z5] into the hydraulic cylinder [Z2] as shown in [31, and screw on the mounting adapter [Z3].
- (i) The safety retaining belt-**KL-0040-2590**, which is available as an *accessory*, or the holding device **KL-0040-258** A make it possible to secure the extraction device against falling down.

3.5 Preparing the vehicle

1. Lift the vehicle safely <u>according to the manufacturer's</u> <u>instructions</u> and loosen or prepare all necessary parts for the subsequent work. EN







4. TYPICAL APPLICATION

This typical application describes the removal and installation of a closed silent bearing directly on the vehicle.

4.1 Removal of the silent block

The extraction device can fall down during use; falling parts can lead to **SEVERE INJURIES** of the head or feet!

✓ Always secure the extraction device at the vehicle against falling, for example using the safety retaining belt - KL-0040-2590 or the mounting device - KL-0040-258 A!

ATTENTION

The silent block may collide with the support sleeve **[B]** when being pulled out.

- ✓ Align the support sleeve [B] in such a way that the silent bearing can be pulled out without collision.
- 1. Assemble the extraction device as shown in **1** and subsequently attach it to the silent block and secure it.

AWARNING

The extraction device may break if a machine-operated drive is used; ejected parts may lead to **DEATH** or **SERIOUS INJURIES**!

- ✓ Use the extraction device exclusively with a manually operated GEDORE Automotive hydraulic cylinder / pump combination with a manometer for reliable pressure control!
- Connect the hydraulic pump [Z1] with the hydraulic cylinder [Z2].

AWARNING

During the removal of silent blocks there is a breaking risk of the draw spindle, and thus the risk of parts being ejected. This can result in **DEATH** or **SEVERE INJURIES**!

- Never exceed the max. load of the hydraulic cylinder [Z1] of 17t!
- ✓ Never stand in axial extension of the draw spindle during the removal [Z5].
- **3.** Operate the hydraulic pump **[Z1]** observing the pressure on the manometer, and pull out the silent block. **(b)5+6**.



(Translation of the operating instructions)



6. MAINTENANCE AND REPAIR

AWARNING If you detect damage to the special tool, it must no longerbe used for safety reasons! A professional inspection and repair may only be carried out by specially trained specialist personnel at **GEDORE Automotive GmbH**. Improper repair of the special tool can result in **DEATH** or **SEVERE INJURIES**.

7. ENVIRONMENTALLY COMPLIANT DISPOSAL

Dispose of special tool and packaging material in accordance with the legal requirements in an environmentally friendly manner.

4.2 Installation of the silent block

The extraction device can fall down during use; falling parts can lead to **SEVERE INJURIES** of the head or feet!

✓ Always secure the extraction device at the vehicle against falling, for example using the safety retaining belt-KL-0040-2590 or the mounting device - KL-0040-258 A!

ATTENTION

During the installation, the silent block may collide with the supporting sleeve [C].

- ✓ Align the support sleeve [C] in such a way that the silent block can be installed without collision.
- Assemble the extraction device accordingly and position it correctly with the silent bearing 27 on the mounting hole and secure it.

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The extraction device may break if a machine-operated drive is used; ejected parts may lead to **DEATH** or **SERIOUS INJURIES**!

- ✓ Use the extraction device exclusively with a manually operated GEDORE Automotive hydraulic cylinder / pump combination with a manometer for reliable pressure control!
- Connect the hydraulic pump [Z1] with the hydraulic cylinder [Z2].

ATTENTION

The silent block can be damaged.

✓ Be sure to observe the installation position of the silent bearing <u>according to the manufacturer's specifications</u>.

During the installation of silent blocks there is a breaking risk of the draw spindle, and thus the risk of parts being ejected. This can result in **DEATH** or **SEVERE INJURIES**!

- ✓ Never exceed the max. load of the hydraulic cylinder [Z2] of 17t!
- ✓ Never stand in axial extension of the draw spindle during the installation [Z5].
- Operate the hydraulic pump [Z1] observing the pressure on the manometer, and install the silent block 3 according to the manufacturer's instructions.
- **4.** Relieve the extraction device, disassemble it, and make further repairs on the vehicle <u>according to manufacturer's instructions</u>.

5. CARE AND STORAGE

ATTENTION Benzene and solvents can damage plastic parts. After each use, clean all parts with a clean cloth only. To protect them against corrosion, lightly rub all metal parts after use with an anti-corrosion oil or wax that is suitable for tool care. Keep the special tool in a dry and clean place.





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