



Suspension strut spring compressor VAS 751 005





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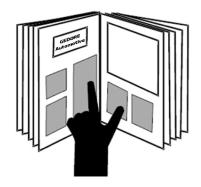
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(Translation of the Operating Instructions)





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Operating Instructions(Translation of the Operating Instructions)



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1. IMPORTANT safety regulations and warnings

AWARNING

Read and understand the operating instructions before you start using the strut spring compressor. Misuse can result in **DEATH** or **SEVERE INJURIES**.

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

The purchaser of the strut spring compressor **must** ensure that the user has read and understood the operating instructions completely before he uses the spring-compressing system.

The operating instructions **must** be available for the user at any time.

1.1 Target group

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

The strut spring compressor may only be used by trained specialists in motor vehicle workshops who are familiar with the safe handling of special vehicle tools.

• **Never** allow unauthorized persons or minors to use the strut spring compressor.

1.2 Intended use

The strut spring compressor may **only** be used for pre-tensioning MacPherson struts.

The strut spring compressor may only be used up to a maximum load of 17,500 N.

The strut spring compressor may only be used by skilled personnel in motor vehicle workshops.

The strut spring compressor **may only be operated** with muscle power.

The strut spring compressor **may only be used** in the way that is described in the operating instructions.

The **basic** vehicle-specific application sequence is described in the repair quide of the vehicle manufacturer.

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

1.3 Misuse/abuse

Never use a machine to actuate the strut spring compressor.

Never make any unauthorized modifications or rebuilds on the strut spring compressor.

Never open the piston rod nut on the strut or disassemble the strut in any way or another when using the strut spring compressor.

• The strut spring compressor **may only** be used in a way as described in **Chapter 1.2 - Intended use**. Any other use can result in **DEATH** or **SEVERE INJURIES**!

1.4 Personal protective equipment

When working with the strut spring compressor, **always** wear your personal protective equipment to protect yourself. The strut spring compressor can bring about mechanical hazards such as crushing, cutting, and shock injuries.



Always wear EYE PROTECTION (see OSHA 29 CFR 1910.133 and ANSI Z87) when using the strut spring compressor to protect yourself against flying parts or particles.

• When working with the strut spring compressor, flying parts or particles can cause injuries to your eyes!



Always wear **PROTECTIVE GLOVES** when using the strut spring compressor to protect yourself against sharp edges and crushing between parts.

• When working with the strut spring compressor, sharp edges and crushing between parts can cause **injuries to your** hands!





Always wear SAFETY SHOES with anti-slip soles and steel toe cap (see OSHA 29 CFR 1910.136 and ANSI Z41) when using the strut spring compressor to protect yourself against falling parts.

• When working with the strut spring compressor, falling parts can cause injuries to your feet and toes!





(Translation of the Operating Instructions)

1.5 Basic warnings

For better differentiation, warnings in these operating instructions are classified as follows:			
Warning sign	Meaning		
A WARNING	Indicates a hazardous situation that, if not avoided, could cause DEATH or SEVERE INJURIES .		
ACAUTION	Indicates a hazardous situation that, if not avoided, could cause MEDIUM or MINOR INJURIES.		
ATTENTION	Indicates a situation that, if not avoided, can cause damage to the tool or an object in its vicinity.		
(i)	Reference to useful information and tips.		

AWARNING - HAZARD from MISUSE

Very high forces act when preloading suspension struts! The strut spring compressor can break or slip if it is used improperly. This can cause **DEATH** or **SEVERE INJURIES** by parts being catapulted around!

- Read and understand all instructions, safety notes and warnings regarding the operation of the spring-compressing device!
- Always work on the vehicle in accordance with the safety regulations of the vehicle manufacturer!
- Always operate the strut spring compressor manually with muscle power and never with a machine!
- Always mount the strut spring compressor safely and according to instructions on the suspension strut!
- Note that the strut spring compressor is **only** used to pre-tension MacPherson shock absorbers!
- **Never** open the piston rod nut on the suspension strut or disassemble the suspension strut in any way while using the strut spring compressor!
- Never hit the strut spring compressor with a hammer or anything else!
- Always wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!
- Use only genuine GEDORE Automotive spare parts and accessories.

AWARNING - HAZARD from OVERLOAD

Very high forces act when preloading suspension struts! The strut spring compressor can break or slip if it is used improperly. This can cause **DEATH** or **SEVERE INJURIES** by parts being catapulted around!

- Never exceed the strut spring compressor's maximum load of 17 500 N!
- Never use the strut spring compressor if it is damaged!
- Always wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

AWARNING - HAZARD from FALLING

The strut spring compressor can drop during preparation and operation, and this can lead to **SEVERE INJURY!**

- Deposit the strut spring compressor **securely** against falling down, e.g. on a workbench!
- Always make sure that the strut spring compressor is securely attached to the suspension strut!
- Never leave the strut spring compressor unattended on the suspension strut!
- Clamp the dismantled suspension strut with the strut spring compressor **securely** in a suitable holding device!
- Always wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

ATTENTION - RISK of DAMAGE

The vehicle, suspension strut, and strut spring compressor can be damaged.

- Always observe the vehicle-specific application sequence in the vehicle manufacturer's repair guide.
- **Regularly** lubricate the spindles of the strut spring compressor, using **only** molybdenum disulfide paste.
- Never fix the suspension strut in a conventional vice.



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1.6 Work environment

For your safety, **only** use the strut spring compressor 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 unauthorized persons.
- The workplace **must** have a room temperature between -10°C and +40°C.

1.7 Handling

AWARNING

For your personal safety, **always** observe the following safety precautions to avoid injuries and material damage as a result of misuse and unsafe handling of the strut spring compressor. Misuse can result in **DEATH** or **SEVERE INJURIES**.

- Before use, read all related instructions, safety regulations and warnings for the operation of the strut spring compressor!
- Note that the vehicle-specific application procedure is always described in the vehicle manufacturer's repair guide!
- Never use the strut spring compressor when you are tired or under the influence of alcohol, drugs, or medication!
- Check the strut spring compressor for damage **before each use!**
- Never use the strut spring compressor if it is damaged!
- **Always** ensure that no other persons are present in the working area while working with the strut spring compressor and, if necessary, ask them to leave the area immediately!
- Always keep hair, clothing, and gloves away from moving parts!
- Interrupt your work **immediately** if you are unsure about using the strut spring compressor, and **contact** the customer service department of **GEDORE Automotive GmbH if necessary**!

1.8 Emissions

Molybdenum disulfide paste may leak when the strut spring compressor is used and may cause skin irritation when in contact with the skin, and also pose a risk to the environment.

- After skin contact, clean the affected area **immediately** with a fat-dissolving soap.
- **Immediately** remove excessive molybdenum disulfide paste with a cleaning cloth and dispose of in an environmentally acceptable manner.

1.9 Maintenance

The spindles of the strut spring compressor can be damaged.

• Before each use, check the spindles of the strut spring compressor for damage and soiling, clean them if necessary, and lubricate them **only** with <u>molybdenum disulphide paste</u>! (for example, **GEDORE Automotive** molybdenum disulfide paste - **KL-0014-0030**)

1.10 Troubleshooting

Always carry out maintenance work on the strut spring compressor in a de-energized state!

Problem: The spindle clamping nuts of the strut spring compressor are sluggish.

Reason: Spindles soiled or insufficiently lubricated; wrong lubricant used.

Remedy: Clean thespindles of the strut spring compressor for damage and lubricate **exclusively** with <u>molybdenum</u> <u>disulphide paste</u>. (for example, **GEDORE Automotive** molybdenum disulphide paste - **KL-0014-0030**)

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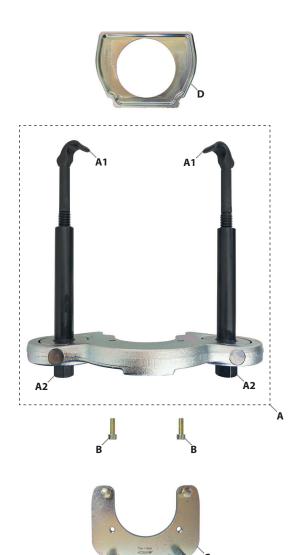
2. Product description

VAS 751 005 - Suspension strut spring compressor in plastic box 2.1

Fits universally for VW-Audi, Seat, and Škoda vehicles on MQB and MEB platforms, e.g. for VW ID.3

The strut spring compressor enables pretensioning a MacPherson strut directly on the vehicle.

By pretensioning the MacPherson strut, for example, there is no need to loosen the drive shaft, axle guide, guide and tie rod, as well as a resulting axle measurement.



2.2 Scope of delivery:

Item	Part no.	Description	
A	VAS 751 005-1	Basic unit (without screws)	1
A1	-	Hook (with spindle)	2
A2	-	Clamping nut	2
В	-	Cheese-head screw M8 x 25 mm	2
c	VAS 751 005-2	Support plate with bolt size 1	1
D	VAS 751 005-3	Support ring for top mounts size 1	1
-	-	USB flash drive (Operating instructions)	1
_	-	Leaflet for USB flash drive	1
-	-	Plastic suitcase	1

2.3 Specifications

Max. load:	17 500 N
Drive for clamping nuts:	27 mm
Clamping path:	160 mm
Maximum span*:	250 mm
Maximum span*:	* without support plate



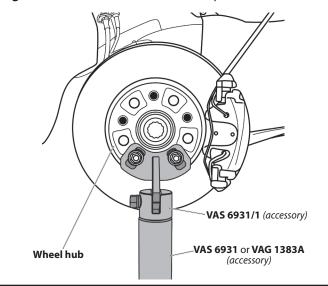


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Fig. 1: Preparing the strut spring compressor.

Fig. 2: Secure and lower the wheel suspension.



Mount the **support plate** according to **Chapter 7.** - Check **spare parts**.

3. Preparation

Before using the strut spring compressor for the first time, check that all parts included in the delivery are present, and follow the instructions below.

3.1 Checking the scope of delivery.

3.2 Preparing the tool.

1. Depending on the vehicle, determine and prepare the required components of the strut spring compressor as well as the required accessories, according to the <u>repair guide of</u> the vehicle manufacturer.

AWARNING

The support plate **[C]** can slip off the strut; thus, the strut spring compressor can drop or be catapulted around, and this can result in **DEATH** or **SEVERE INJURIES**.

- Before use, always check the mounting of the support plate [C]!
- **Always** mount the support plate [C] with the mark "Top/oben" pointing upwards to the basic unit [A]!
- **2.** Mount the support plate **[C]** according to **Chapter 7.** Check **individual parts overview**.

Then attach the support plate [C] as shown in Fig. 1, in the correct position to the basic unit [A] using the socket head cap screws [B].

(i) Fasten the socket head cap screws [B] clockwise with 10 Nm.

3.3 Preparing the vehicle.

ATTENTION

The vehicle can be damaged.

- Always observe the vehicle-specific application sequence in the vehicle manufacturer's repair guide.
- **1.** Lift the vehicle safely <u>according to the manufacturer's</u> <u>instructions</u> and loosen or prepare all necessary parts.

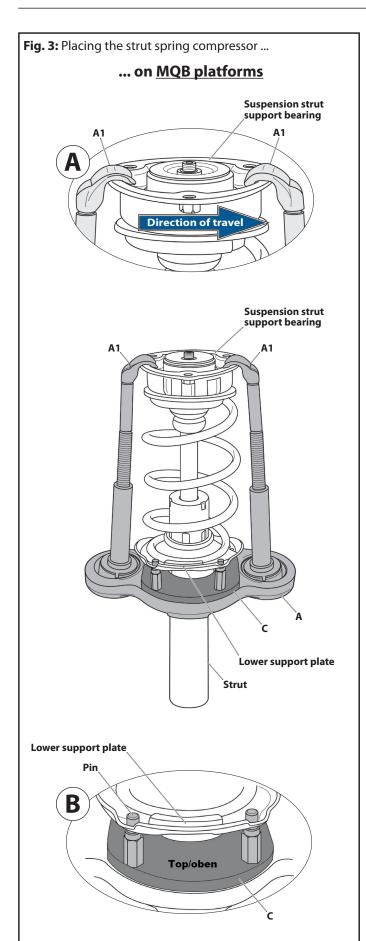
For example:

Remove wheels. Secure the wheel suspension for example using the support device **VAS 6931/1** (accessory) and the gearbox jack **VAS 6931** or **VAG 1383A** (accessory) (**Fig. 1**). Loosen the strut from the spring dome, and lower it slightly above the gearbox jack.



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4. Typical application

This application example describes the preload of a MacPherson strut on the front axle. The basic vehicle-specific application sequence is described in the repair guide of the vehicle manufacturer.

4.1 Placing the strut spring compressor ...

Depending on the strut, the strut spring compressor **must be applied accordingly**!

... e.g. On a MQB plattform / See Chapter 4.1.1

... e.g. On a MEB plattform / See Chapter 4.1.2

4.1.1 Placing the strut spring compressor e.g. on a MQB platform

AWARNING

The hooks [A1] as well as the support plate [C] can slip off the strut and thus, the strut spring compressor can drop or be catapulted around; this can result in **DEATH** or **SEVERE INJURIES**.

- **Be careful** to remove dirt and loose rust from the suspension strut support bearing.
- Make sure that the hooks [A1] engage fully and securely
 at the top of the strut support bearing and that the pins of
 the support plate [C] fully engage into the holes of the lower
 spring plate!
- 1. Position the strut spring compressor on the strut as shown in Fig. 3.
- (i) Make sure that the hooks [A1] securely engage at the top of the strut support bearing (Fig. 3 A), and that the pins of the support plate [C] fully engage into the holes of the lower spring plate (Fig. 3 B).

2. Proceed to:

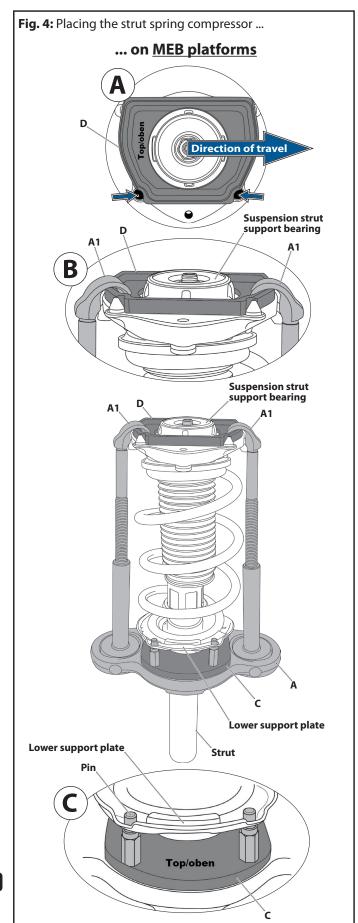
- · Chapter 4.2 / Strut removal.
- · Chapter 4.3 / Strut installation.





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4.1.2 Placing the strut spring compressor e.g. on a MEB platform

▲WARNING

The support ring **[D]** can slip off the strut; thus, the strut spring compressor can drop or be catapulted around, and this can result in **DEATH** or **SEVERE INJURIES**.

- **Be careful** to remove dirt and loose rust from the suspension strut support bearing.
- Mount the support ring [D] always with the marking "Top/ oben" pointing upwards on the strut support bearing!
- **1.** Mount the support ring **[D]** in the correct position on the strut support bearing as shown in **Fig. 4 A + B**.

♠WARNING

The hooks [A1] as well as the support plate [C] can slip off the support ring [D] or the strut and thus, the strut spring compressor can drop or be catapulted around; this can result in **DEATH** or **SEVERE INJURIES**.

- Make sure that the hooks [A1] engage fully and securely at the top of support ring [D], and that the pins of the support plate [C] fully engage into the holes of the lower spring plate!
- **2.** Position the strut spring compressor on the strut as shown in **Fig. 4**.
- (i) Make sure that the hooks [A1] securely engage at the top of the support ring [D] (Fig. 4 B), and that the pins of the support plate [C] fully engage into the holes of the lower spring plate (Fig. 4 C).
- 3. Proceed to:
 - · Chapter 4.2 / Strut removal.
 - · Chapter 4.3 / Strut installation.

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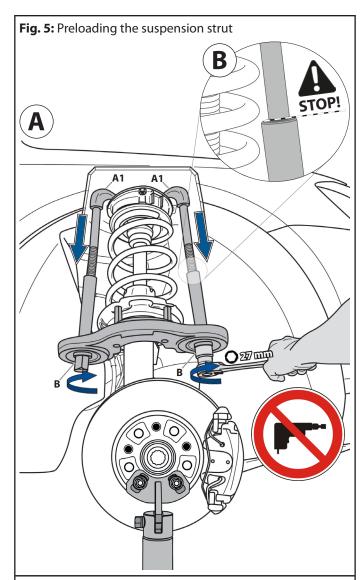
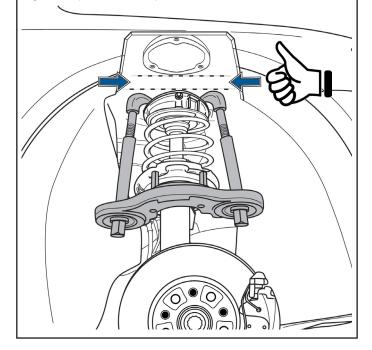


Fig. 6: Suspension strut preloaded.

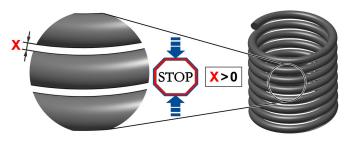


4.2 Strut dismounting.

♠WARNING

Very high forces act when preloading suspension struts! Incorrect installation, overloading, or misuse of the strut spring compressor can result in breakage or slipping which can lead to **DEATH** or **SEVERE INJURIES** by parts being catapulted around!

- Note that the strut spring compressor is **only** used to pretension MacPherson shock absorbers!
- Do not tension the strut **until all** necessary components of the strut spring compressor are positioned correctly, evenly and securely on the shock absorber, or engage in it!
- **Always** operate the strut spring compressor manually with muscle power and **never** with a machine!
- Never exceed the strut spring compressor's maximum load of 17.500 N!
- **Always** turn the drive nuts **[B]** alternately and uniformly to ensure straight and secure strut pretensioning!
- Finish the tensioning process at the latest when the threads on the hooks [A1] are no longer visible (Fig. 5 B), or before the spring coils are in contact (Figure below)!



1. Straightly preload the suspension strut as shown in Fig. 5.
For this, turn the two drive nuts [B] (27 mm) alternately and evenly <u>clockwise</u> until there is enough space to remove the strut from the vehicle. (Fig. 6)

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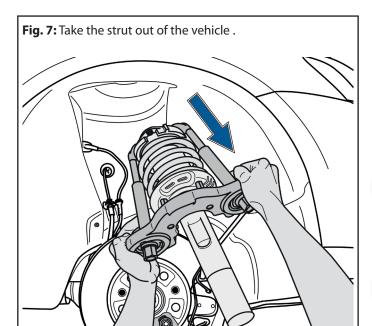
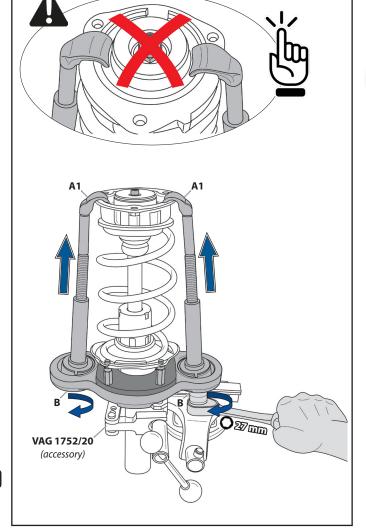


Fig. 8: Relieve the strut spring and take the strut spring compressor away.



2. Take the strut out of the vehicle's strut clamping hole according to the manufacturer's instructions. (Fig. 7) Spread the strut clamping bore, e.g. by using the spreader - VAS 751 003 (accessory).

AWARNING

The suspension strut with the strut spring compressor can drop and cause **severe injuries**.

• **Always** wear your personal protective equipment (safety goggles, protective gloves, safety shoes) when working!

ATTENTION

The suspension strut can be deformed and damaged.

- Never fix the suspension strut in a conventional vice.
- **3.** Clamp the suspension strut into a suitable holding device, e.g. clamping device **VAG 1752/20** (accessory). **(Fig. 8)**

♠ WARNING

Incorrect use of the strut spring compressor may result in breakage or slippage which can lead to **DEATH** or **SEVERE INJURIES** by catapulting around the strut spring, strut support bearing or other parts!

- **Never** open the piston rod nut on the suspension strut, and **never** disassemble the suspension strut in any way while using the strut spring compressor!
- Dismantle the strut exclusively in conjunction with a suitable spring compressor, e.g. spring compressor - VAS 6908 or VAS 6046 + fitting spring holders!
- 4. Relieve the suspension strut evenly as shown in Fig. 8.
 For this, turn the two drive nuts[B] (27 mm) alternately and evenly <u>counterclockwise</u> until the hooks [A1] are free.
 Next, remove the strut spring compressor from the suspension strut.

5. Perform further work on the strut <u>according to the manufacturer's instructions.</u>



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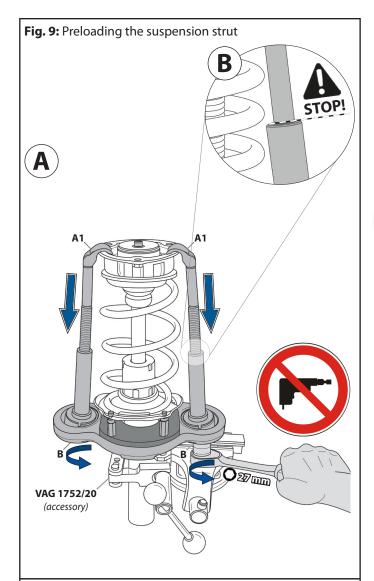
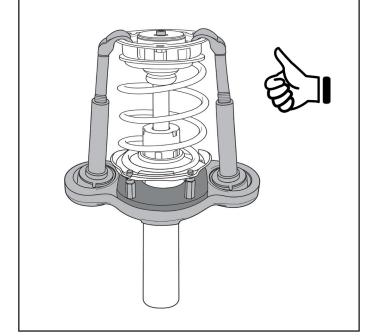


Fig. 10: Suspension strut preloaded.



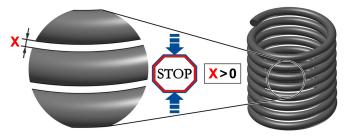
4.3 Suspension strut mounting.

1. According to the individual strut, the strut spring compressor must be re-attached; see Chapter 4.1 / Placing the strut spring compressor.

AWARNING

Very high forces act when preloading suspension struts! Incorrect installation, overloading, or misuse of the strut spring compressor can result in breakage or slipping which can lead to DEATH or SEVERE INJURIES by parts being catapulted around!

- Note that the strut spring compressor is **only** used to pretension MacPherson shock absorbers!
- Do not tension the strut **until all** necessary components of the strut spring compressor are positioned correctly, evenly and securely on the shock absorber, or engage in it!
- **Always** operate the strut spring compressor manually with muscle power and **never** with a machine!
- Never exceed the strut spring compressor's maximum load of 17.500 N!
- **Always** turn the drive nuts[**B**] alternately and evenly to ensure straight and secure strut pretensioning!
- Finish the tensioning process **at the latest** when the threads on the hooks [A1] are no longer visible (Fig. 9 B), or before the spring coils are in contact (Fig. below)!

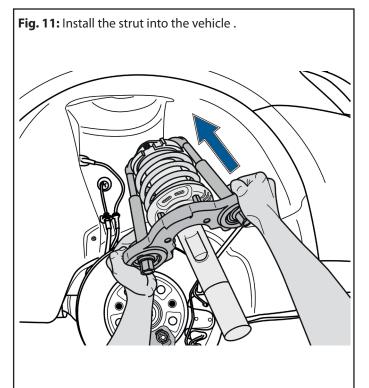


2. Straightly preload the suspension strut as shown in Fig. 9.
For this, turn the two drive nuts [B] (27 mm) alternately and uniformly <u>clockwise</u> until the pretensioned strut can be re-installed into the vehicle. (Fig. 10)



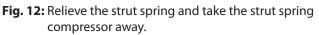


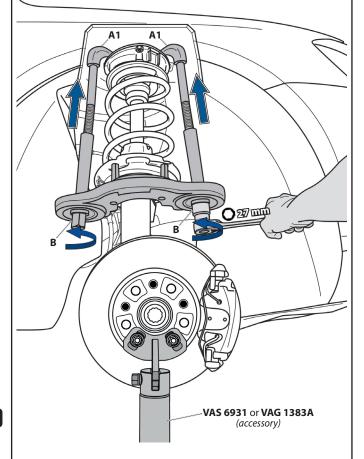
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3. Remove the strut from the holding device, insert it in the correct position into the strut clamping bore, and fix it <u>in accordance with the manufacturer's instructions</u>. **Fig. 11**

4. Relieve the suspension strut evenly as shown in Fig. 12.
For this, turn the two drive nuts[B] (27 mm) alternately and evenly <u>counterclockwise</u> until the hooks [A1] are free.
Next, remove the strut spring compressor from the suspension strut.





5. Perform further work on the vehicle <u>according to the manufacturer's instructions</u>.

5. Care and storage

CAUTION: Benzene and chemical 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.

6. Maintenance and repair

WARNING: For safety reasons, ensure that a damaged special tool is no longer used. 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**.



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VAS 751 005 - Suspension strut spring compressor in plastic box

7. Overview of the single parts

VAS 751 005 - Suspension strut spring compressor in plastic box

Item	VAS no.	GAM no.	Description	Qty.
A /1	VAS 751 005-1	KL-0029-200 VAG	Basic unit without screws	1
A1 / 1.1	-	KL-0029-1002 VAG	Hook (with spindle)	2
A2 / 1.2	-	KL-0029-2006	Clamping nut	2
1.3	-	KL-0029-2002	Bearing shell	2
1.4	-	KL-0029-2003	Axial bearing	2
1.5	-	KL-0029-2004	Circlip	2
1.6	-	KL-0029-1002-1	Extension sleeve	2
1.7	-	KL-1283-1015	Cheese-head screw M8 x 25 mm	2
1.8	-	KL-0029-2001 VAG	Base plate	1
1.9	-	KL-0029-2005	Bolt	4
1.10	-	KL-0029-2007	Grub screw M5x6 mm, secured	4
B /2	-	KL-1283-1015	Cheese-head screw M8 x 25 mm	2
C /3	VAS 751 005-2	KL-0029-111 VAG	Support plate with bolt size 1	1
3.1	-	KL-0029-1102	Bolt 12.5 mm long	1
3.2	-	KL-0029-1103	Bolt 19.5 mm long	1
3.3	-	KL-0029-1105	Bolt with pin 37 mm long	1
3.4	-	KL-0029-1104	Bolt with pin 33.5 mm long	1
3.5	-	KL-0029-1101 VAG	Support plate size 1	1
D /4	VAS 751 005-3	KL-0029-112 VAG	Support ring for top mounts size 1	1
-	-	KL-0029-12/80 Z	USB flash drive (Operating instructions)	1
-	-	KL-0028-13/81 Z	Leaflet for USB flash drive	1
-	-	KL-0029-209 VAG	Plastic box with adhesive	1

8. Environmentally compliant disposal

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

9. Manufacturer's address

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