

ZF Aftermarket Service Information

Replacing air spring
Audi C6

Manufacturer Audi

Product

Document number 40931 EN



AFTERMARKET

LEMFÖRDER  SACHS  TRW



1 Replacing air spring

Vehicle manufacturer	Model range	Model
Audi	C6	A6
		A6 Allroad quattro

Tab. 1 Vehicle identification

 Vehicle identification: Check OE item number.

Storing air springs	
Temperature	-15°C (min.) / +50°C (max.)
UV radiation	Avoid direct sunlight.
Storage environment	Ensure a clean storage environment. Avoid contamination.

Tab. 2 Storing air springs

1.1 Removing air spring at rear axle

Requirements:

- Vehicle has been lifted safely. Observe the vehicle manufacturer specifications.
- Air suspension has been emptied using suitable diagnostic unit. Observe the vehicle manufacturer specifications.
- Wheel has been removed.

CAUTION

**Risk of injury due to flying parts.
Slight to moderate injury possible.**

- ⇒ Wear protective goggles.
- ⇒ Wear hearing protection.
- ⇒ Wear protective gloves.

Loosening air line

1. Carefully loosen air line nipple.

→ Air pressure escapes.



2. Loosen bottom screw and stabilizer link nut on control arm.

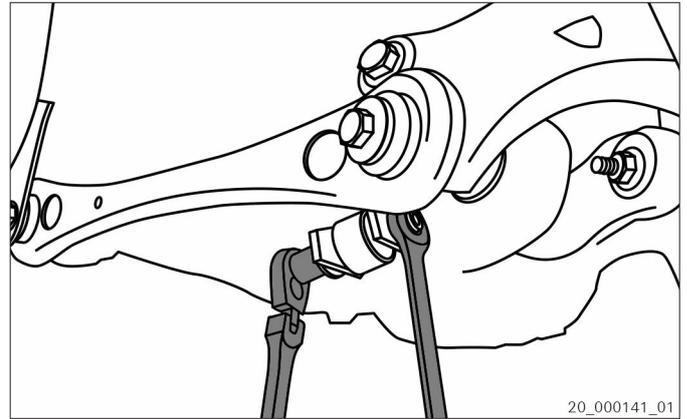


Fig. 1

3. Remove screw and nut.

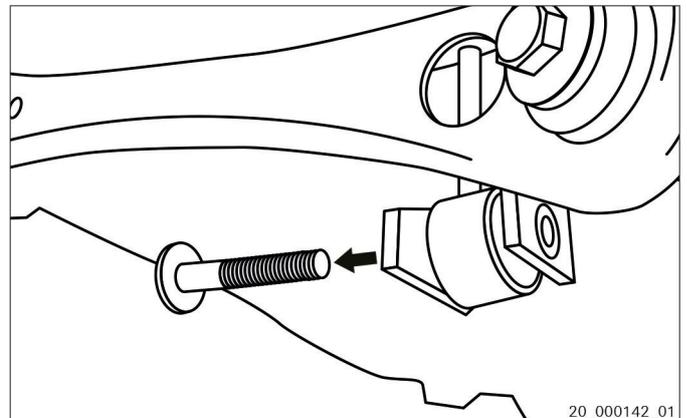


Fig. 2

4. Loosen and remove shock absorber screw.

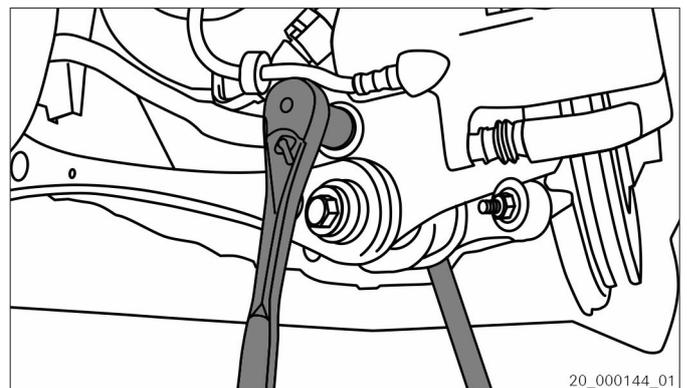


Fig. 3



5. Disconnect the plug connection of wheel-speed sensor.

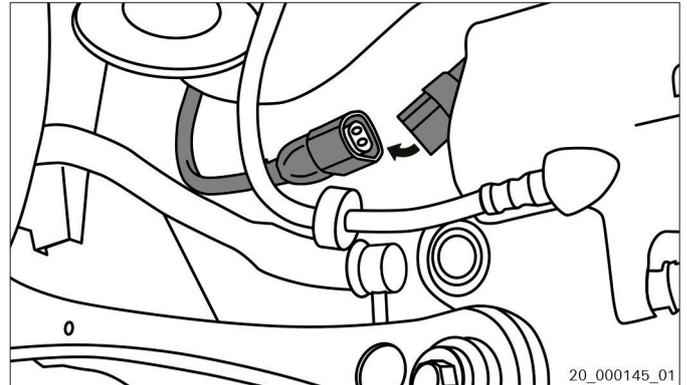


Fig. 4

6. Loosen and remove bottom screw of air spring.

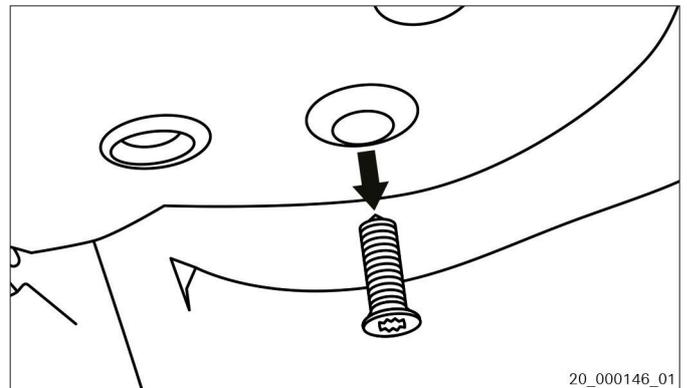


Fig. 5

7. Spread wheel suspension using tire lever.
8. Remove air spring.

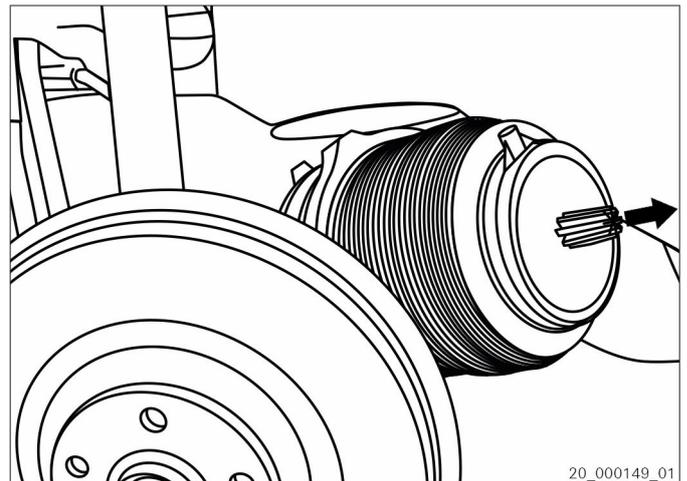


Fig. 6



1.2 Modifying air line

Requirements:

- Connectors are protected against contamination.

 Connecting air line to a new SACHS air spring possible only without OE nipple.

Modifying air line

1. Separate nipple (1) from clamping piece (2).

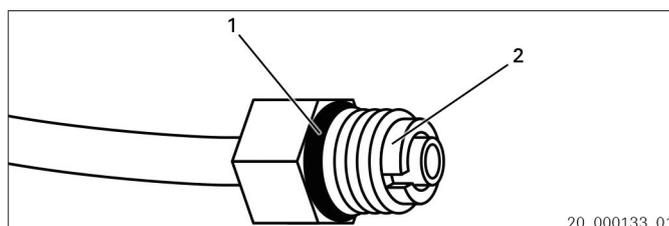


Fig. 7 Nipple with clamping piece

- 1 Nipple
- 2 Clamping piece

2. Bend open clamping piece (2).

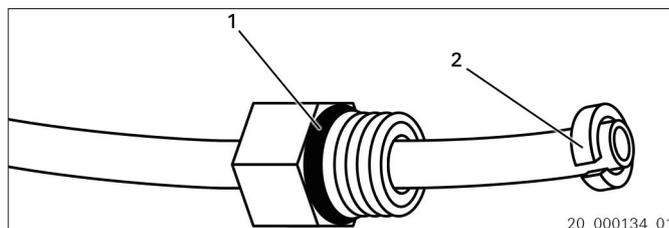


Fig. 8 Bend open clamping piece

- 1 Nipple
- 2 Clamping piece

3. Remove clamping piece (2).

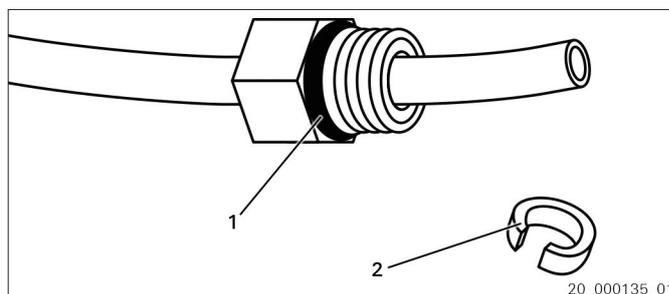


Fig. 9 Remove clamping piece

- 1 Nipple
- 2 Clamping piece



4. Remove nipple (1).

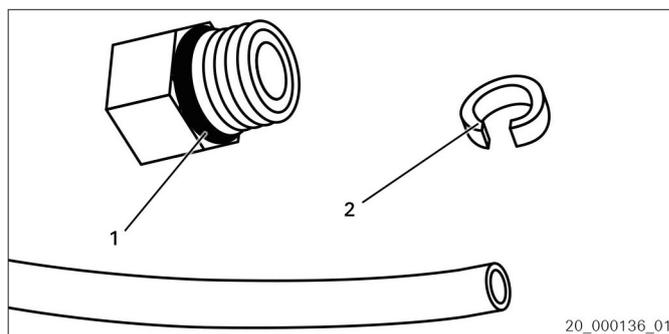


Fig. 10 Remove nipple

- 1 Nipple
- 2 Clamping piece

1.3 Installing air spring at rear axle

Requirements:

- Supporting surfaces are clean.
1. Spread wheel suspension using tire lever.
 2.  Align air spring lug with groove of chassis component.

Insert air spring.

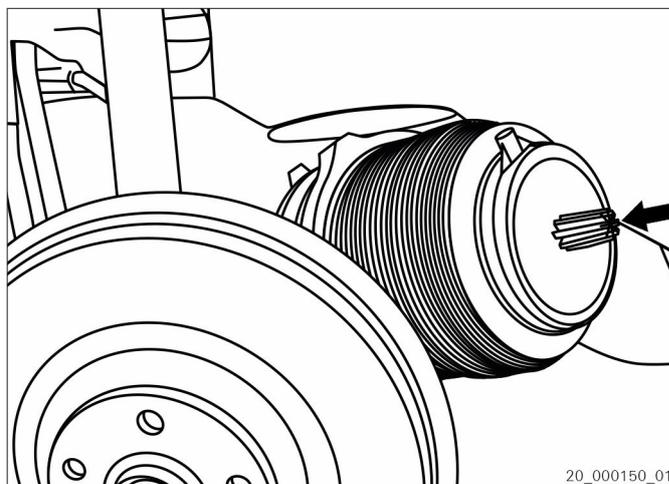
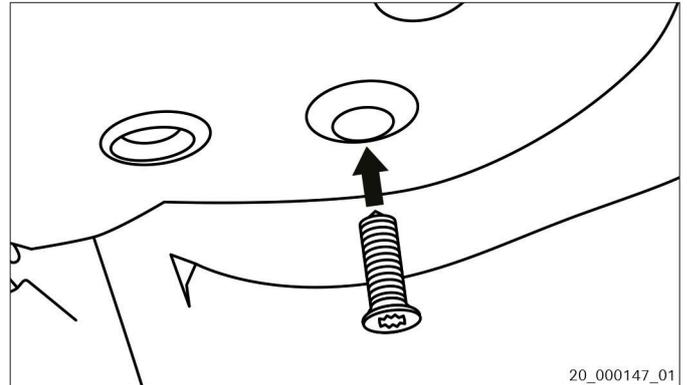


Fig. 11



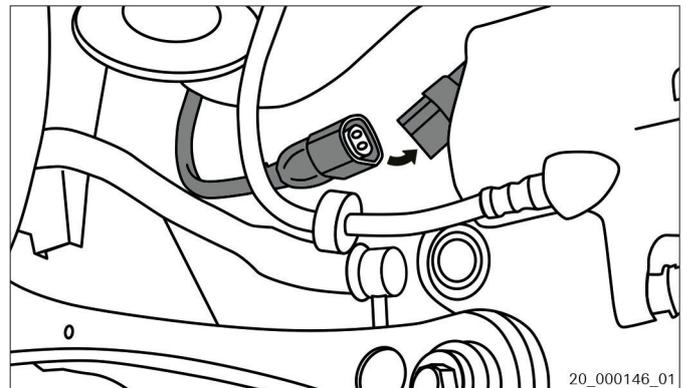
3. Screw in bottom screw of air spring and tighten it by applying the appropriate tightening torque. Observe the vehicle manufacturer specifications.



20_000147_01

Fig. 12

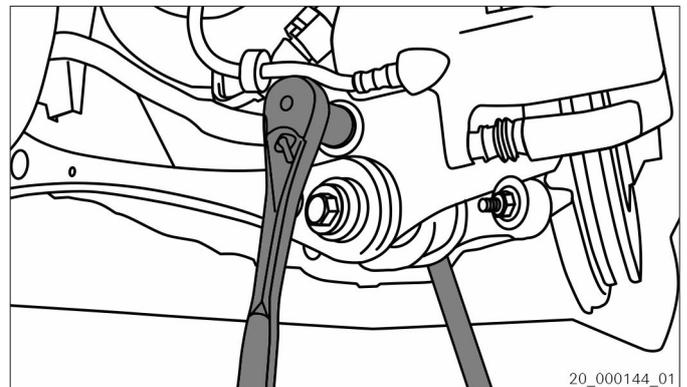
4. Connect the plug connection of wheel-speed sensor.



20_000146_01

Fig. 13

5. Screw in bottom screw of shock absorber and tighten it by applying the appropriate tightening torque. Observe the vehicle manufacturer specifications.



20_000144_01

Fig. 14



- Screw in bottom screw and nut of stabilizer link on control arm and tighten them by applying the appropriate tightening torque. Observe the vehicle manufacturer specifications.

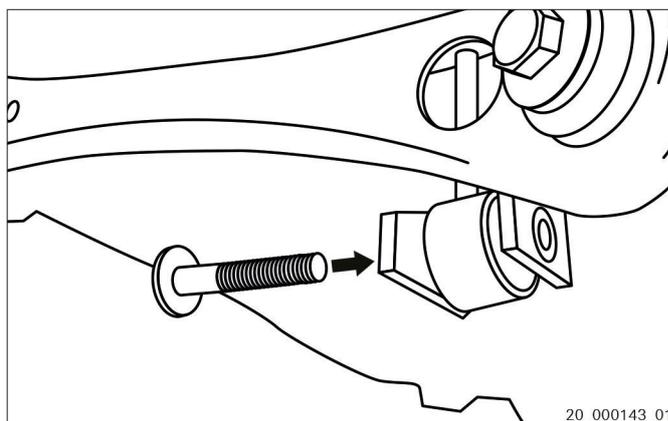


Fig. 15

1.4 Connecting air line

Requirements:

- Connectors are clean.
- Connectors are protected against contamination.
- Air line has been checked for damage.

NOTICE

Material damage of air suspension possible.
Pressure loss due to scratches or cuts on air line possible.
⇒ Check air line for damage before connecting it.
⇒ Replace damaged air line.

1. Remove and dispose of transport safety device (1).
2. Insert air line (1) into the nipple until contact is obtained.

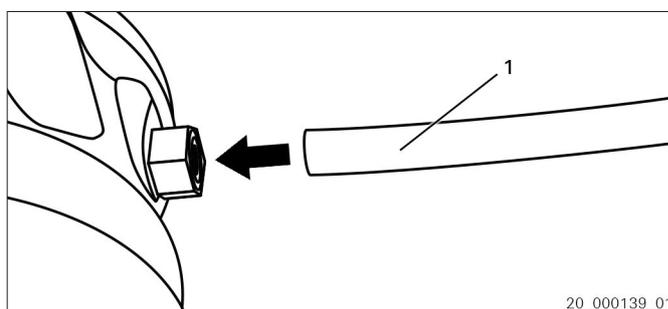


Fig. 16 Insert air line

1 Air line



3. Pull air line to check for secure seat.

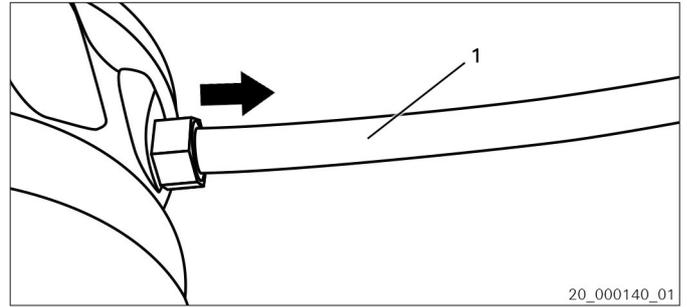


Fig. 17 Check for secure seat

1 Air line

4. Fill air suspension using suitable diagnostic unit. Observe the vehicle manufacturer specifications.
5. Screw on wheel applying the appropriate tightening torque. Observe the vehicle manufacturer specifications.
6. Lower vehicle from work platform.