

ZF Aftermarket Service Information

Replacing air spring
BMW E53

Manufacturer BMW

Product

Document number 40934 EN



AFTERMARKET

LEMFÖRDER  SACHS  TRW



1 Replacing air spring

Vehicle manufacturer	Model range	Model	Chassis type
BMW	E53	X5	Sports
			Comfort

Tab. 1

 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, rear axle

Requirements:

- Ignition key has been removed.
- Vehicle has been raised safely. Observe the vehicle manufacturer specifications.
- Wheel has been removed.
- Electrical fuse of the air suspension has been removed. Observe the vehicle manufacturer specifications.
- Trunk floor has been removed.

Removing spacers

1. Remove spacers (1) and (2).

→ Compressed-air reservoir (3) is accessible.

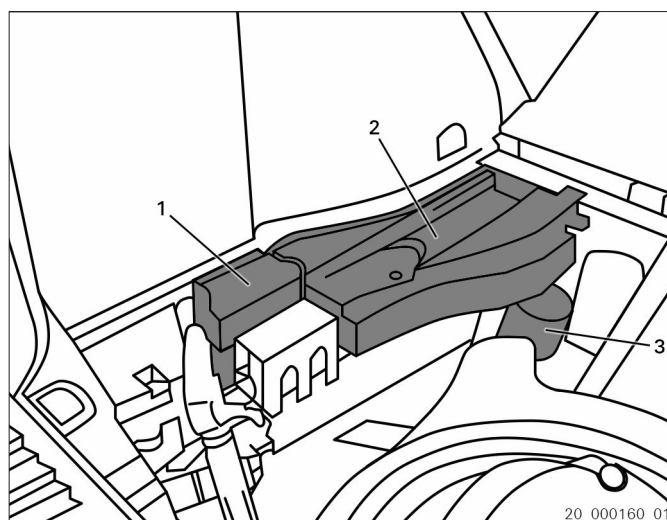


Fig. 1



- 1 Spacer
- 2 Spacer
- 3 Compressed-air reservoir

Loosening air line

2. Carefully loosen air line nipple.
→ Air pressure escapes.

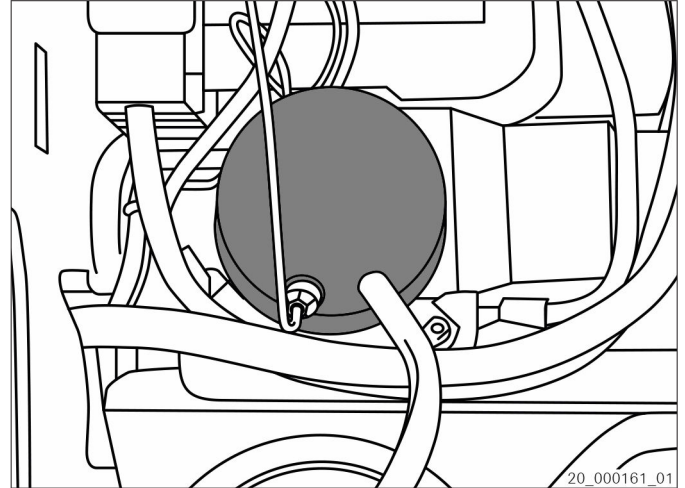


Fig. 2

Tightening air line

3. Tighten air line nipple to the specified tightening torque. Observe the vehicle manufacturer specifications.
4. Loosen and dispose of air line fitting safety clip.

Removing air spring

5. Pull up and loosen air line fitting (1) on upper side of air spring (2).
6. Loosen and dispose of retaining clips (3).

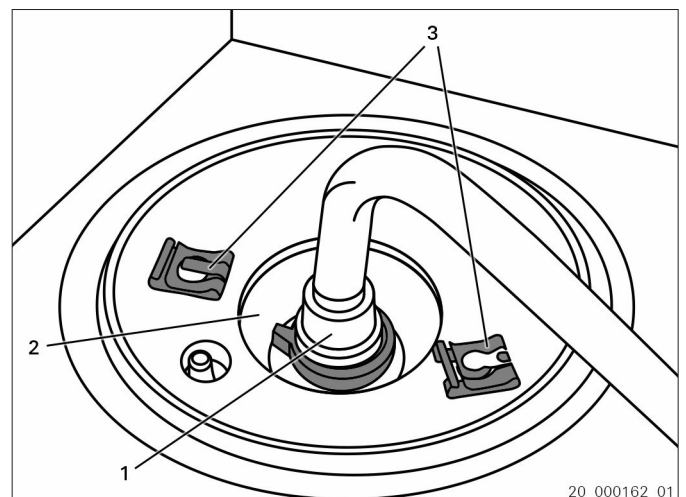


Fig. 3

- 1 Air line fitting
- 2 Air spring
- 3 Retaining clips



7. Remove retaining clip on lower side of air spring.

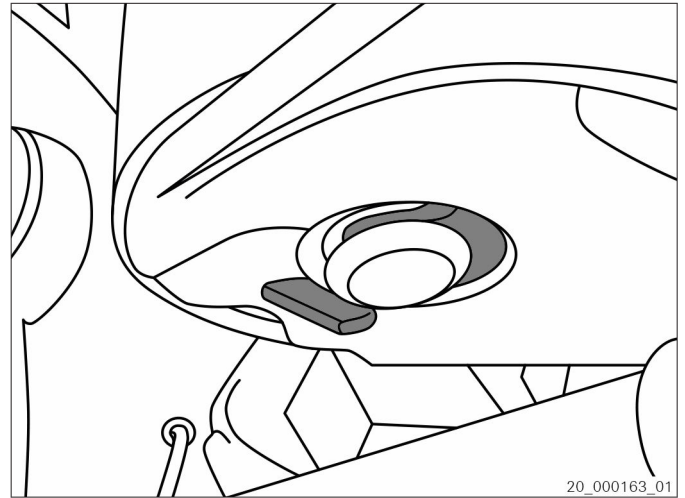


Fig. 4

8. Compress and pull out air spring.

1.2 Installing air spring, rear axle

Requirements:

- Supporting surfaces are clean.

CAUTION

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

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

Installing air spring

1. Insert air spring.



- Secure air spring (2) with **new** retaining clips (3).

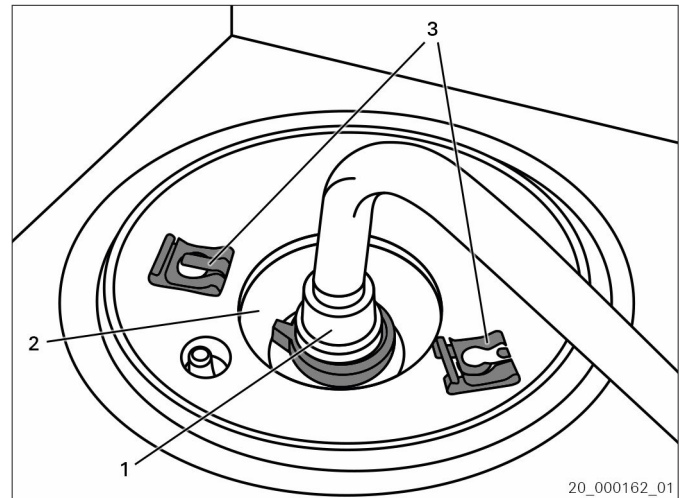


Fig. 5

- Air line fitting
- Air spring
- Retaining clips

- Align air spring lug with steering knuckle recess.
- Insert retaining clip on lower side of air spring.

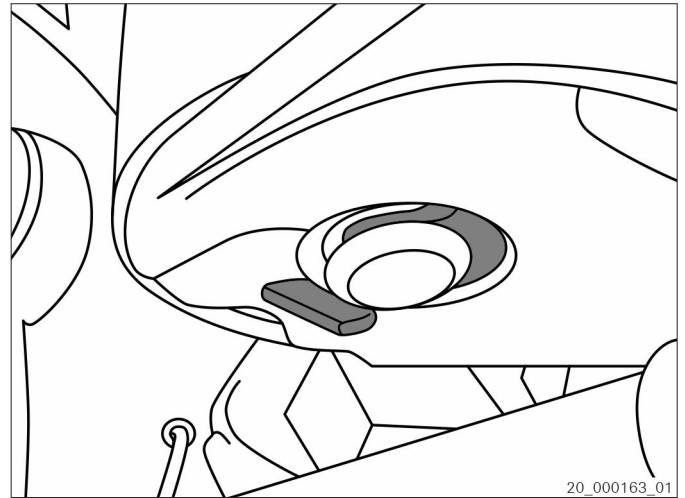


Fig. 6

Connecting air line

- 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.



NOTICE

Material damage possible on air suspension.

⇒ Do not lubricate sealing rings.

Check if sealing rings fit correctly.

6. Install air line fitting (1) on upper side of air spring (2).

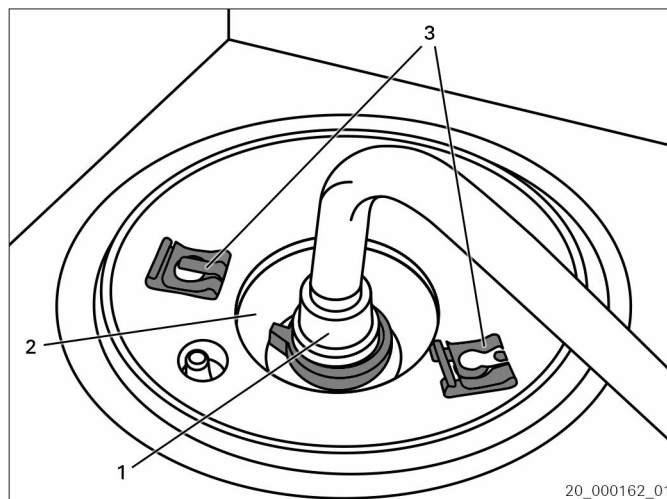



Fig. 7

- 1 Air line fitting
- 2 Air spring
- 3 Retaining clips

7. Secure air line fitting with **new** safety clip.

 Chamfered edge of safety clip must point towards air spring.

8. Check secure fit of air line fitting.

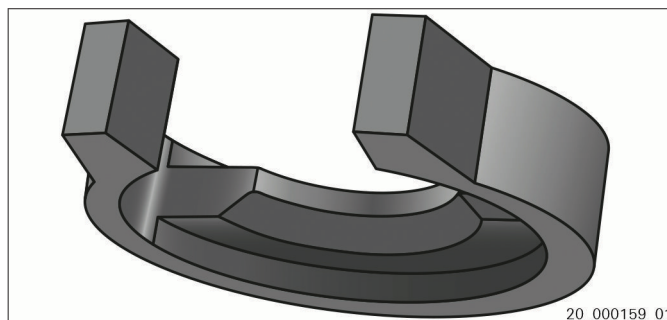


Fig. 8



Installing spacers

9. Install spacers (1) and (2).
10. Install trunk floor.

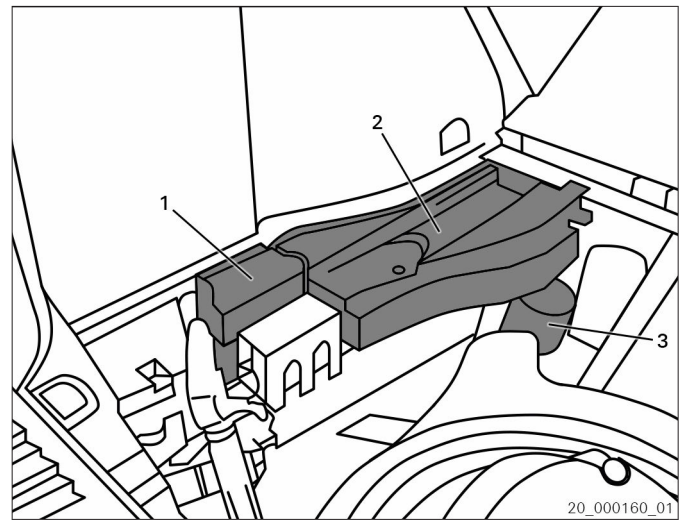


Fig. 9

- 1 Spacer
- 2 Spacer
- 3 Compressed-air reservoir

Filling air springs

11. Insert electrical fuse of the air suspension. Observe the vehicle manufacturer specifications.
12. Fill air suspension using suitable diagnosis system. Observe the vehicle manufacturer specifications.