

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:

BMW 3 Touring (E91) 318d 2.0, BMW 5 Saloon (E39) 520i 2.0, BMW 5 Saloon (E39) 525tds 2.5, BMW 5 Saloon (E39) 523i 2.5, BMW 5 Saloon (E39) 528i 2.8, BMW 3 Saloon (E90) 318d 2.0, BMW 5 Touring (E39) 520i 2.0, BMW 5 Touring (E39) 523i 2.5, BMW 5 Saloon (E39) 525td 2.5, BMW 3 Saloon (E46) 318i 1.9, BMW 3 Saloon (E46) 328i 2.8, BMW 3 Saloon (E46) 320d 2.0, BMW 5 Touring (E39) 528i 2.8, BMW 3 Saloon (E46) 323i 2.5, BMW 3 Saloon (E46) 320i 2.0, (+ 227)

The steps may slightly vary depending on the car design.

REPLACEMENT: STRUT MOUNT – BMW E90. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #13
- Combination spanner #15
- Combination spanner #18
- Combination spanner #22
- Drive socket # 13
- Drive socket # 17
- Drive socket # 18
- Drive socket # 21
- Torx bit T45
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat chisel
- Hammer
- Flat Screwdriver
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Wheel chock
- Fender cover

BUY TOOLS

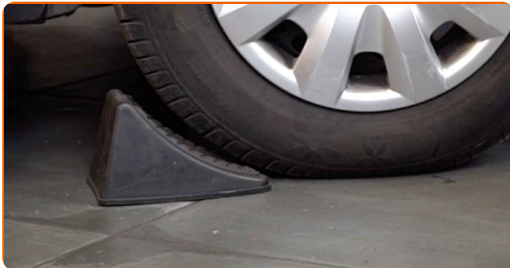
Replacement: strut mount – BMW E90. AUTODOC experts recommend:

- The replacement procedure is identical for the mounts of the left and right shock struts of the front suspension.
- All mounts of the front shock struts should be replaced simultaneously.
- Be sure to replace all self-locking nuts and bolts during installation.
- Please note: all work on the car – BMW E90 – should be done with the engine switched off.

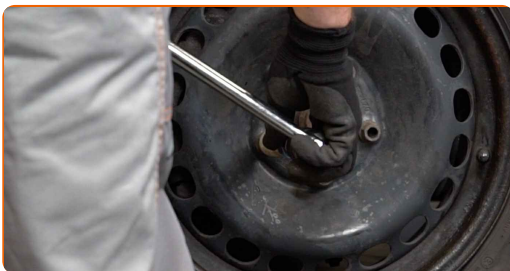
CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Secure the wheels with chocks.

**2**

Loosen the wheel mounting bolts. Use wheel impact socket #17.

**3**

Raise the front of the car and secure on supports.

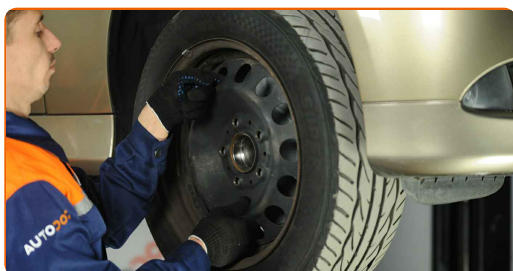
4 Unscrew the wheel bolts.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
BMW E90

5 Remove the wheel.



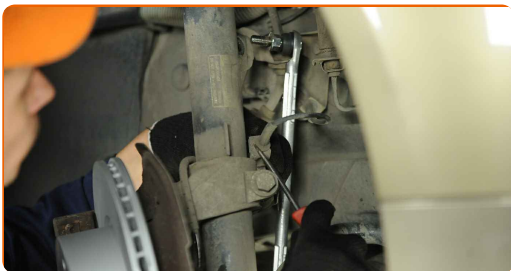
6 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

7 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #15. Use a drive socket #17. Use a ratchet wrench.



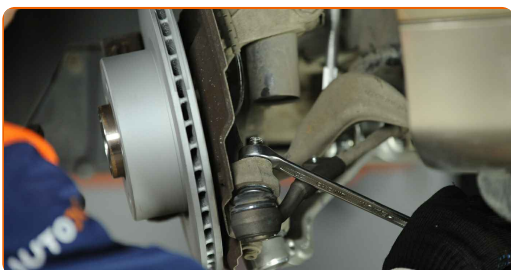
8 Remove the stabilizer rod.

- 9 Disconnect the ABS sensor wiring. Use a flat screwdriver.

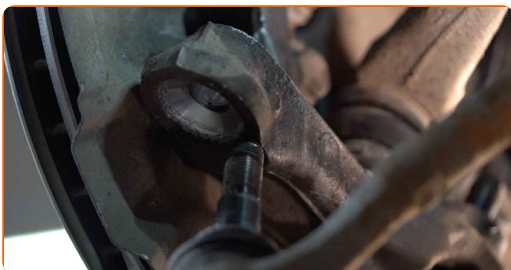


- 10 Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.

- 11 Unscrew the end fastening nut to the steering knuckle. Use a combination spanner #22. Use Torx T45. Use a ratchet wrench.



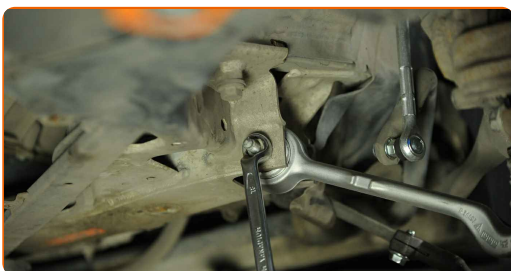
- 12 Disconnect the tie rod end from the steering knuckle.



- 13 Clean the fasteners connecting the control arm to the subframe. Use a wire brush. Use WD-40 spray.

- 14 Loosen the front fastener of the control arm. Use a combination spanner #18.

- 15 Unscrew the rear fastener connecting the control arm to the subframe. Use a combination spanner #18 (2 pieces).

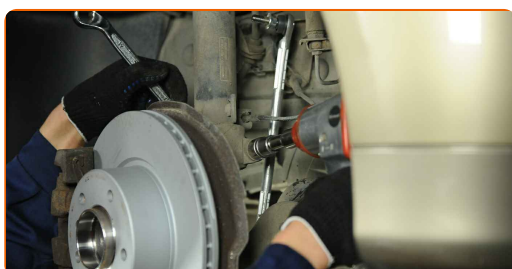


- 16 Remove the rear fastener of the control arm.



- 17 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.

- 18 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



- 19 Remove the fastening bolt.

- 20 Release the lower fastener connecting the shock strut to the steering knuckle. Use a flat metal-working chisel. Use a hammer.

- 21 Disconnect the steering knuckle from the shock absorber strut.



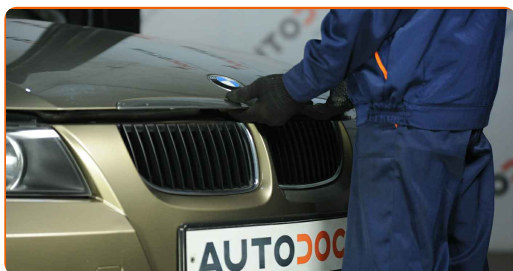
Replacement: strut mount – BMW E90. AUTODOC recommends:

- Make sure that the steering knuckle is supported.

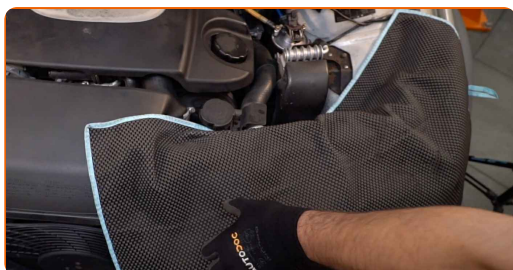
22 Lower the car.



23 Open the bonnet.



24 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



25 Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.

26 Unscrew the top fastening of the shock strut mount. Use a combination spanner #13. Use a drive socket #13. Use a ratchet wrench.



AUTODOC recommends:

- BMW E90 – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

27

Remove the suspension strut.



28

Set the shock absorber strut on the spring compressor tool.

Replacement: strut mount – BMW E90. Tip from AUTODOC:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

29

Compress the spring.



30 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



31 Remove the strut piston rod nut. Use a drive socket #21. Use a ratchet wrench.



32 Remove the top strut mount. Use a flat screwdriver.



Replacement: strut mount – BMW E90. Tip from AUTODOC experts:

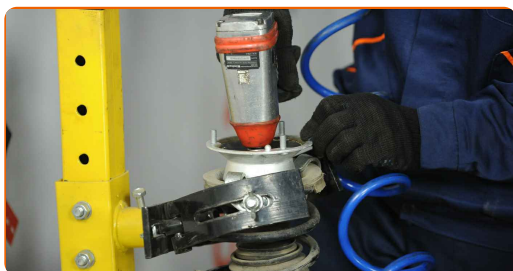
- Examine the shock absorber dust cap and the bump stop. Replace them if necessary.

33 Clean the mounting seat of the shock strut mount. Use a wire brush. Use WD-40 spray.

- 34 Install a new top shock strut mount.



- 35 Tighten the shock strut piston rod nut. Use a drive socket #21. Use a torque wrench. Tighten it to 64 Nm torque.



Replacement: strut mount – BMW E90. Tip:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

- 36 Decompress the spring.



- 37 Remove the assembled shock strut.