



How to change front
strut mount on **Mini R50,**
R53 – replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:

MINI Hatchback (R50, R53) 1.6 One, MINI Hatchback (R50, R53) 1.6 Cooper, MINI Hatchback (R50, R53) 1.6 Cooper S, MINI Hatchback (R50, R53) 1.4 D One, MINI Convertible (R52) 1.6 One, MINI Convertible (R52) 1.6 Cooper, MINI Convertible (R52) 1.6 Cooper S, MINI Hatchback (R50, R53) 1.4 One D, MINI Hatchback (R50, R53) One, MINI Hatchback (R50, R53) 1.6 John Cooper Works

The steps may slightly vary depending on the car design.

REPLACEMENT: STRUT MOUNT – MINI R50, R53.
TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #16
- Combination spanner #18
- Drive socket # 13
- Drive socket # 16
- Drive socket # 18
- HEX bit No.H6.
- HEX bit No.H7.
- XZN socket bit # 14
- Shock absorber socket
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat chisel
- Hammer
- Tap wrench
- Crow bar
- Hydraulic transmission jack
- Hydraulic strut spring compressor
- Wheel chock

BUY TOOLS

Replacement: strut mount – Mini R50, R53. Tip from AUTODOC experts:

- 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.
- All work should be done with the engine stopped.

REPLACEMENT: STRUT MOUNT – MINI R50, R53. RECOMMENDED SEQUENCE OF STEPS:

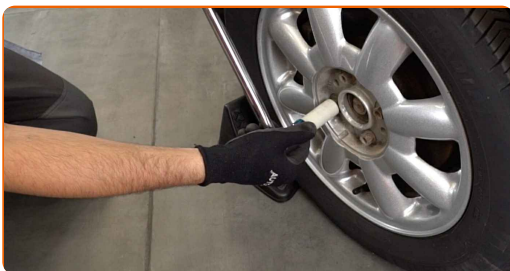
1

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.



Replacement: strut mount – Mini R50, R53. Tip from AUTODOC:

- To avoid injury, hold up the wheel when unscrewing the bolts.

5 Remove the wheel.



6 Clean the fasteners of the shock strut upper mount. Use WD-40 spray.



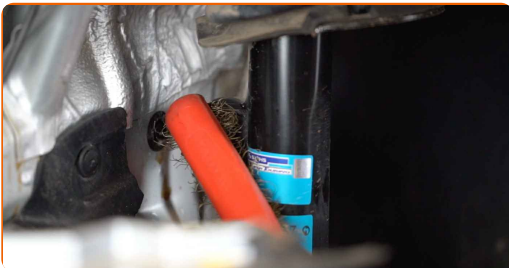
7

Disconnect the wiring and the brake hose from the bracket on the shock strut.



8

Clean the fasteners connecting the stabiliser link to the shock strut, and those connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



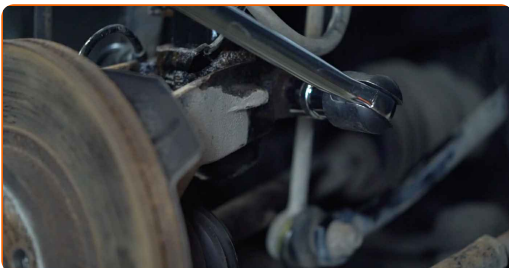
9

Unscrew the nut and remove the stabilizer rod from the shock strut. Use a combination spanner #16. Use HEX No.H6. Use a ratchet wrench.

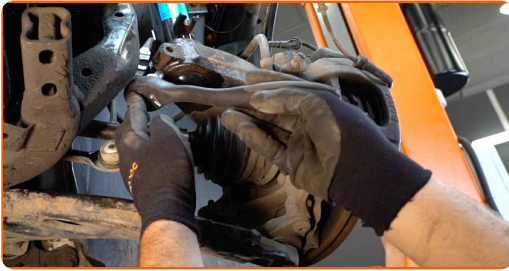


10

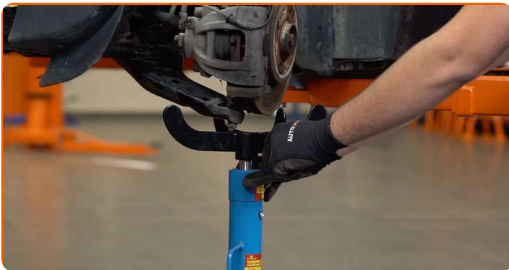
Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use XZN #14. Use a ratchet wrench. Use a tap wrench.



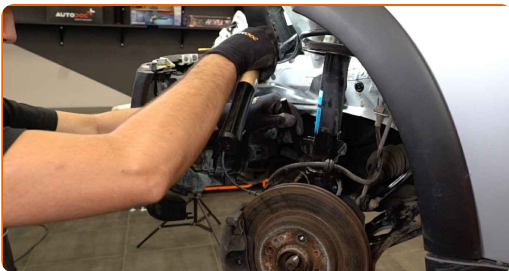
- 11 Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber. Use a ratchet wrench.



- 12 Prop up the steering knuckle. Use a hydraulic transmission jack.



- 13 Disconnect the steering knuckle from the shock absorber strut. Use a flat metal-working chisel. Use a hammer.

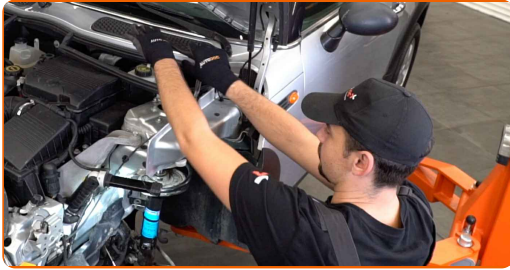


Replacement: strut mount – Mini R50, R53. AUTODOC experts recommend:

- Make sure that the steering knuckle is not released from load.

14

Unscrew the upper fastening of the shock absorber strut. Use a drive socket #13. Use a ratchet wrench.

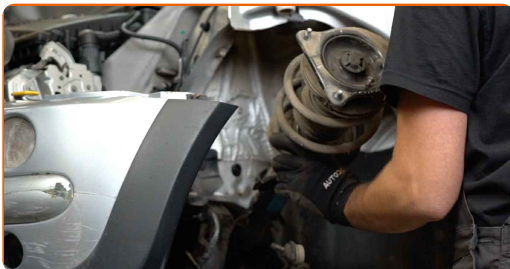


AUTODOC recommends:

- Mini R50, R53 – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

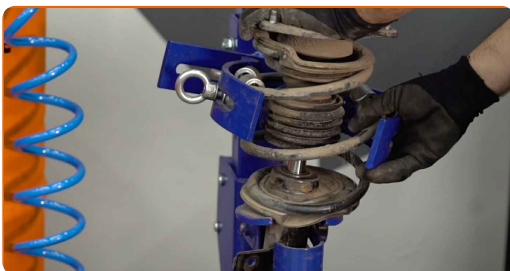
15

Remove the suspension strut.



16

Set the shock absorber strut on the spring compressor tool.



Replacement: strut mount – Mini R50, R53. Professionals recommend:

- 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.

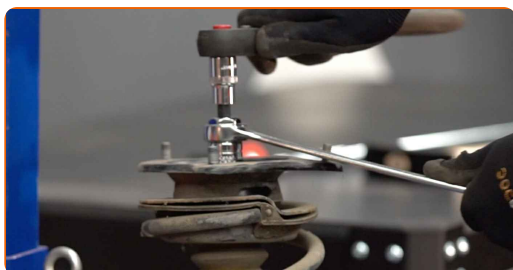
17

Compress the spring.



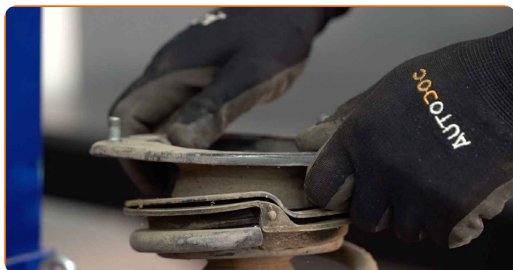
18

Remove the strut piston rod nut. Use HEX No.H7. Use a drive socket #18. Use a ratchet wrench.



19

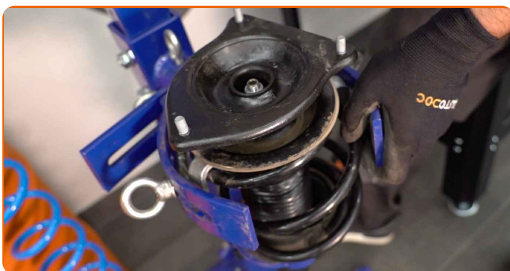
Remove the shock strut mount.



20 Install a new strut mount.



21 Tighten the shock strut piston rod nut. Use a drive socket #18. Use a combination spanner #18. Use HEX No.H7. Use a torque wrench. Tighten it to 64 Nm torque.



Replacement: strut mount – Mini R50, R53. Tip from AUTODOC experts:

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

22 Decompress the spring. Remove the assembled shock strut.



23 Install the shock strut into the wheel arch.



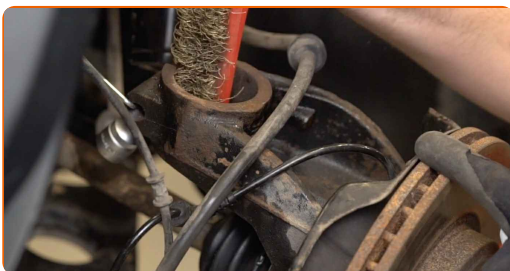
24 Secure the upper fasteners of the shock strut (3 pieces). Do not tighten it.



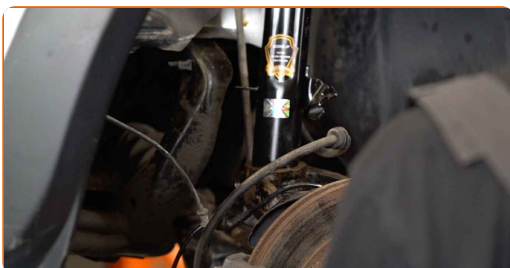
AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. Mini R50, R53

25 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



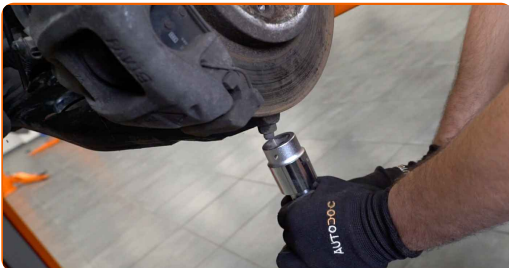
26 Fix the shock absorber strut on the steering knuckle.



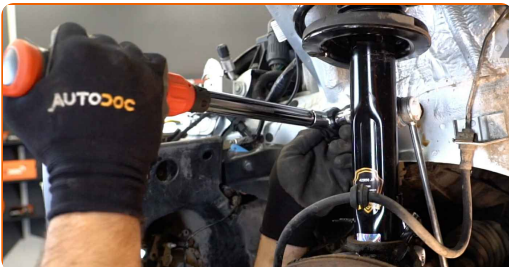
- 27** Install and tighten a new bolt of the steering knuckle. Use XZN #14. Use a torque wrench. Tighten it to 81 Nm torque.



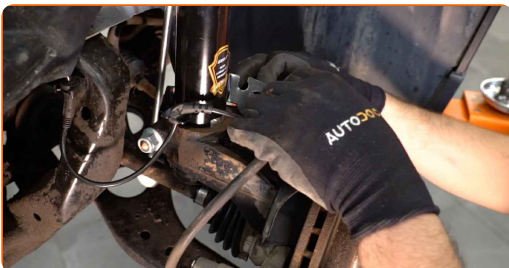
- 28** Remove the support from under the steering knuckle.



- 29** Secure the stabilizer link on the suspension strut. Use a drive socket #16. Use a torque wrench. Tighten it to 56 Nm torque.



- 30** Connect the fastener of the ABS sensor cable to the shock absorber strut. Fasten the brake hose on the strut.



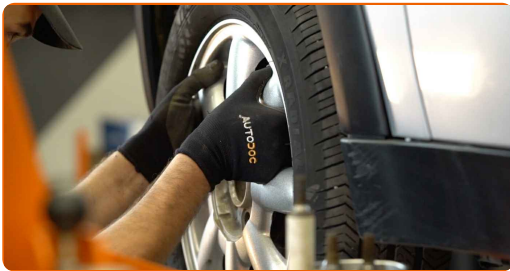
31

Clean the wheel rim mounting seat. Use a wire brush. Treat the contacting surface. Use copper grease.



32

Install the wheel.



Replacement: strut mount – Mini R50, R53. Tip from AUTODOC:

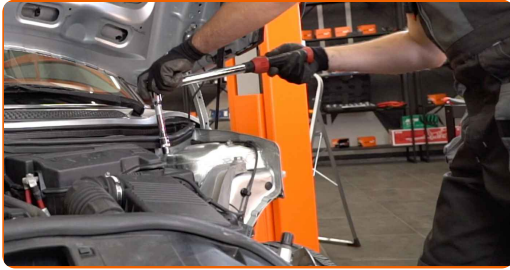
- To avoid injury, hold up the wheel when screwing in the fastening bolts.

33

Screw in the wheel bolts. Use wheel impact socket #17.



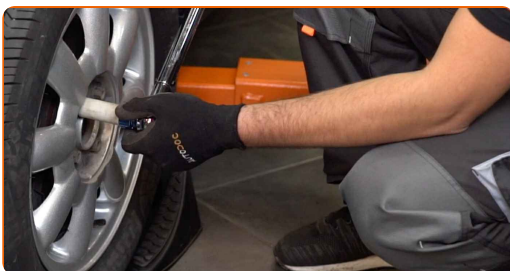
34 Tighten the shock strut top mount. Use a drive socket #13. Use a torque wrench. Tighten it to 34 Nm torque.



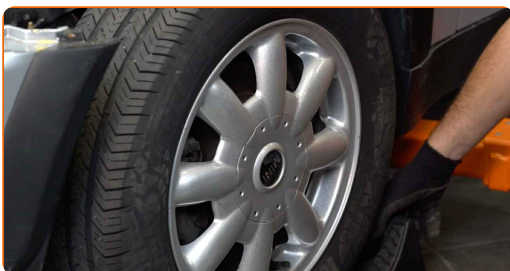
35 Treat the shock strut rod. Use copper grease.



36 Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 110 Nm torque.



37 Remove the jacks and chocks.



WELL DONE! 

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