



How to change front coil springs on **Audi A3 8L1** – replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:

AUDI A3 Hatchback (8L1) 1.6, AUDI A3 Hatchback (8L1) 1.8, AUDI A3 Hatchback (8L1) 1.8 T, AUDI A3 Hatchback (8L1) 1.9 TDI, AUDI A3 Hatchback (8L1) 1.8 T quattro, AUDI A3 Hatchback (8L1) S3 quattro, AUDI A3 Hatchback (8L1) 1.9 TDI quattro

The steps may slightly vary depending on the car design.

REPLACEMENT: COIL SPRINGS – AUDI A3 8L1. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Combination spanner #18
- Combination spanner #21
- Drive socket # 13
- Drive socket # 18
- Drive socket # 22
- Copper grease
- Torque wrench
- Wheel impact socket #17
- 12-point socket 1-3/16"
- HEX bit No.H6.
- Flare nut socket №22
- Pin punch
- Hammer
- Shock absorber socket
- Hydraulic transmission jack
- Hydraulic strut spring compressor
- Rubber mallet
- Wheel chock
- Fender cover

BUY TOOLS

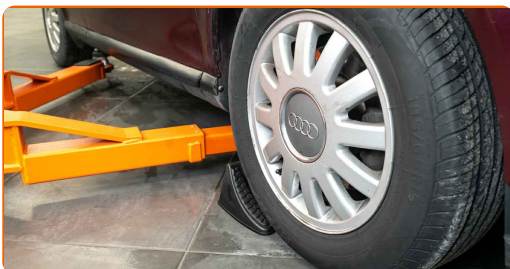
Replacement: coil springs – Audi A3 8L1. Tip:

- Both coil springs of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right coil springs of the front suspension.
- You might need other tools.
- Warning! Shut down the engine before starting any work – Audi A3 8L1.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

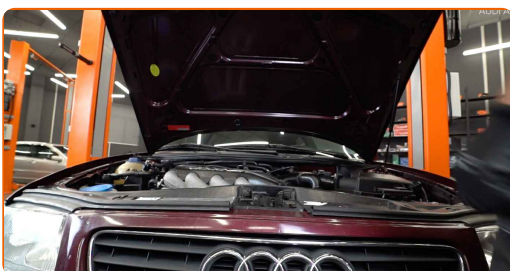
1

Open the bonnet.



2

Secure the wheels with chocks.



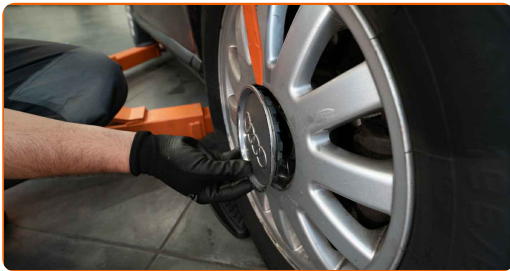
3

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



4

Remove the wheel rim cover.



5

Unscrew the hub lock nut. Use 1-3/16" drive 12-point socket.

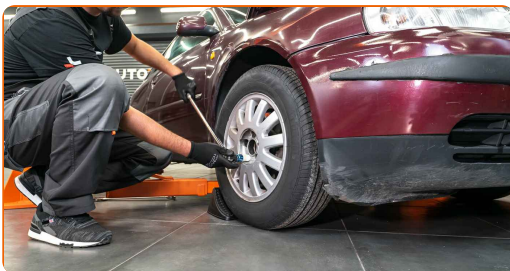


AUTODOC recommends:

- Do not unscrew the fastener by more than 90 degrees.

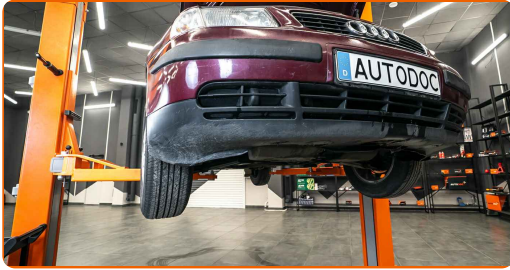
6

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



7

Raise the front of the car and secure on supports.



8

Unscrew the wheel bolts.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
Audi A3 8L1

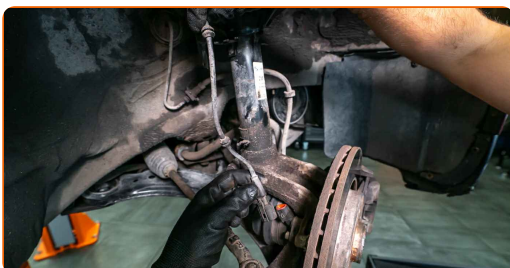
9

Remove the wheel.



10

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



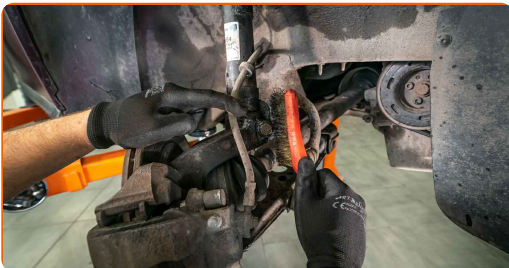
11

Unscrew the fastener connecting the drive shaft to the wheel hub. Use 1-3/16" drive 12-point socket.



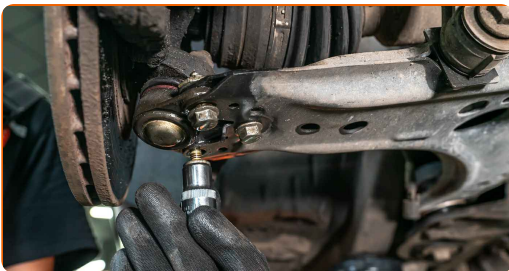
12

Clean the fasteners connecting the shock strut to the steering knuckle. Clean the fasteners connecting the ball joint to the suspension control arm. Use a wire brush. Use WD-40 spray.



13

Unscrew the fastener connecting the ball joint to the suspension control arm. Use a drive socket #13.

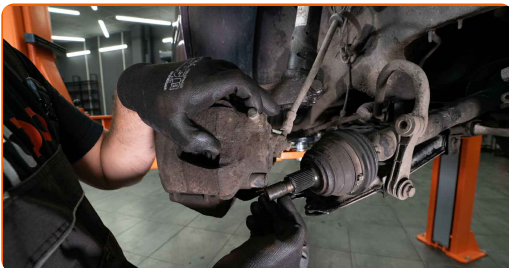


14

Disconnect the spherical joint from the arm.

15

Pull the drive shaft out of the steering knuckle and lifting it, tie to the body. Use a hammer. Use a pin punch.



Replacement: coil springs – Audi A3 8L1. Tip from AUTODOC experts:

- Make sure that the drive shaft is not unloaded (when the car is jacked).

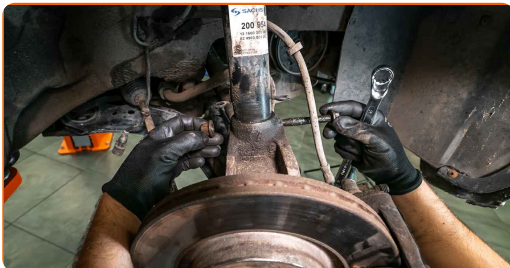
16

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



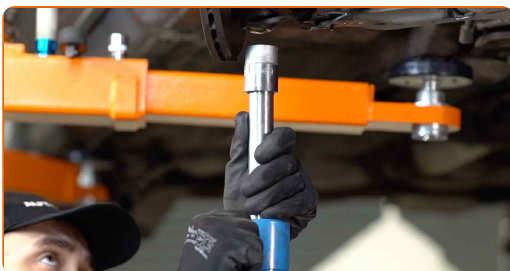
17

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



18

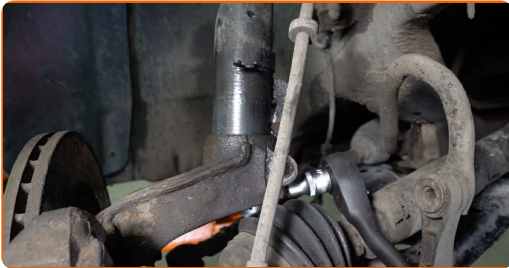
Remove the support from under the steering knuckle.



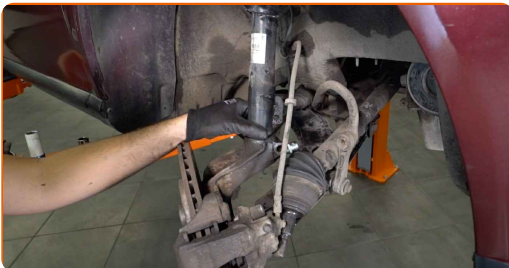
AUTODOC recommends:

- Audi A3 8L1 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

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



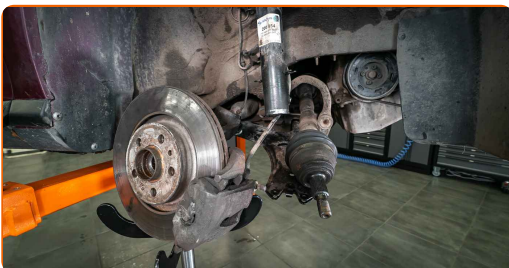
- 20 Disconnect the steering knuckle from the shock absorber strut.



Replacement: coil springs – Audi A3 8L1. AUTODOC experts recommend:

- If necessary, use a rubber mallet.

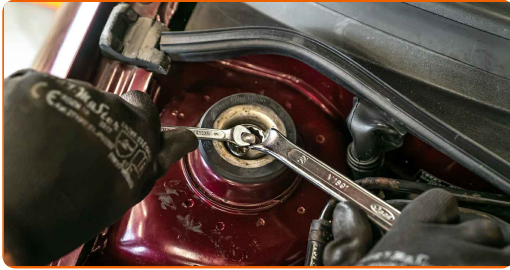
- 21 Prop up the steering knuckle. Use a hydraulic transmission jack.



Replacement: coil springs – Audi A3 8L1. AUTODOC recommends:

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

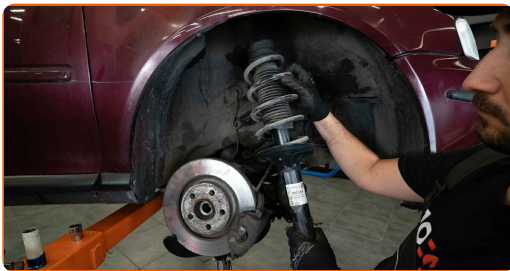
22 Unscrew the upper fastening of the shock absorber strut. Use a combination spanner #21. Use HEX No.H6.



AUTODOC recommends:

- Important! Hold the suspension strut while unscrewing the fastening bolts. Audi A3 8L1

23 Remove the suspension strut. Set the shock absorber strut on the spring compressor tool.



Replacement: coil springs – Audi A3 8L1. Tip from AUTODOC experts:

- 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.

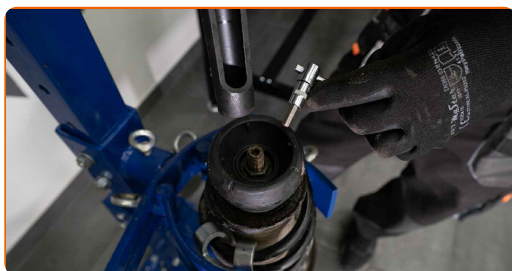
24

Compress the spring.



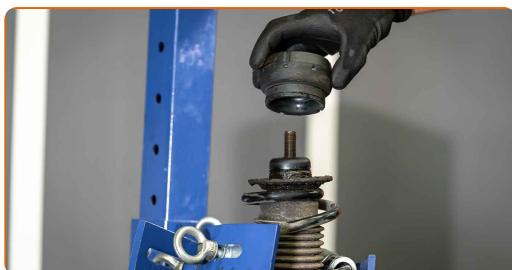
25

Remove the strut piston rod nut. Use flare nut socket #22. Use HEX No.H6.



26

Remove the top strut mount.



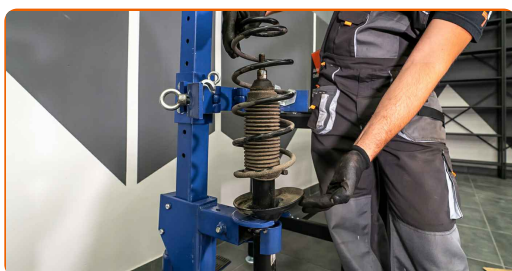
27

Release the coil spring.



28

Remove the spring.



29

Clean the coil spring mounting seats. Clean the shock absorber rod. Use a wire brush. Use WD-40 spray.



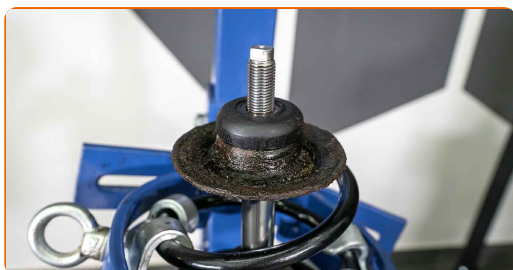
30

Install the spring on the shock absorber.



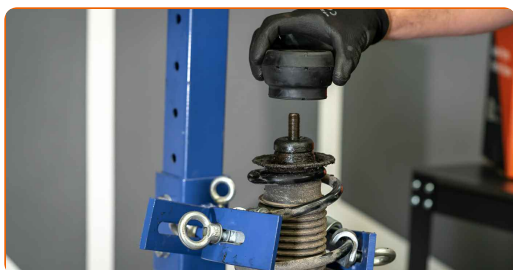
31

Compress the spring.



32

Install the upper strut mount and the strut mount bearing.



- 33** Tighten the shock strut piston rod nut. Use flare nut socket #22. Use HEX No.H6. Use a torque wrench. Tighten it to 60 Nm torque.



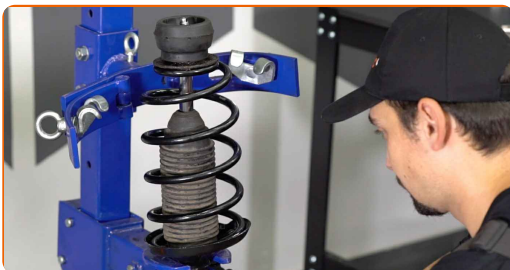
Replacement: coil springs – Audi A3 8L1. Tip from AUTODOC experts:

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

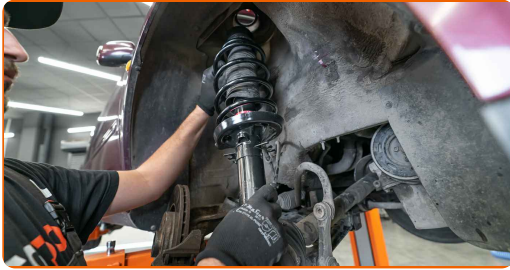
- 34** Decompress the spring.



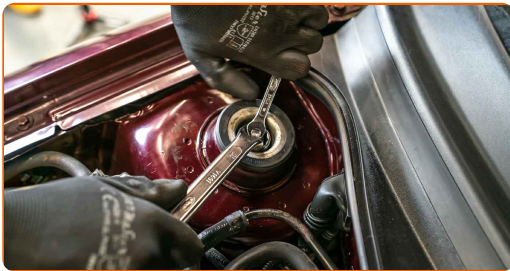
- 35** Remove the assembled shock strut.



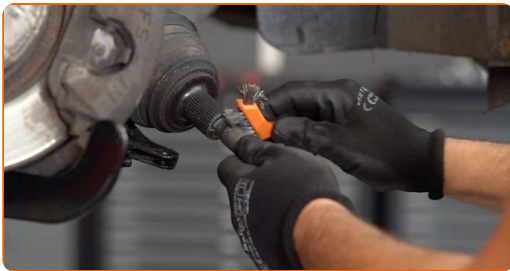
36 Install the shock strut into the wheel arch.



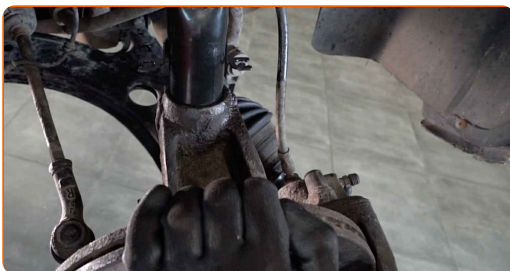
37 Tighten the upper fastening nut of the shock absorber strut. Do not tighten it.



38 Clean the splines of the drive shaft CV joint. Use a wire brush.



39 Treat the shock strut mounting seat on the steering knuckle. Use WD-40 spray.

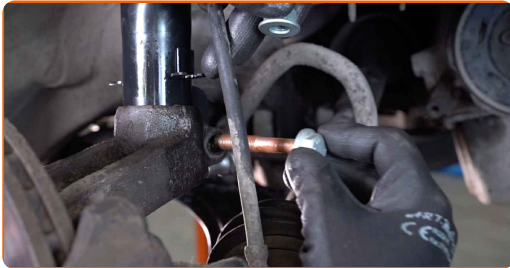


40 Fix the shock absorber strut on the steering knuckle.

Replacement: coil springs – Audi A3 8L1. AUTODOC experts recommend:

- If necessary, use a rubber mallet.

- 41 Install and tighten a new bolt of the steering knuckle. Important! Be sure to use new fasteners. Use a drive socket #18. Use a combination spanner #18. Use a torque wrench. Tighten it to 60 Nm torque.+90°

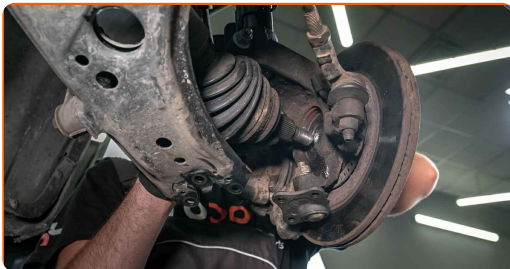


- 42 Remove the support from under the steering knuckle.

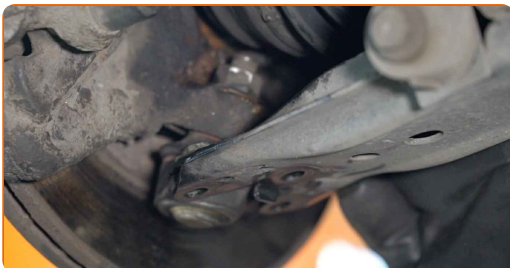
AUTODOC recommends:

- Audi A3 8L1 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

- 43 Mount the drive shaft into the wheel hub.



- 44 Attach the ball joint to the control arm.

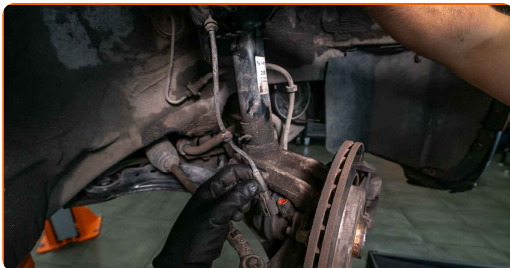


- 45 Screw in the fasteners of the ball joint lock plate (3 pieces). Important! Be sure to use new fasteners. Use a drive socket #13. Use a torque wrench. Tighten it to 20 Nm torque.+90°



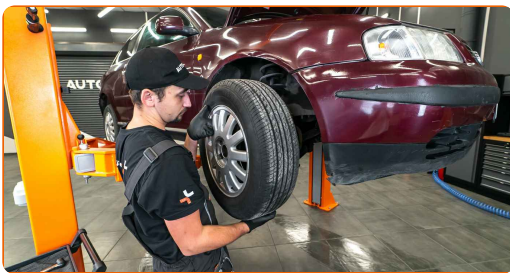
- 46 Screw the nut of the drive shaft.

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



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

- 49 Install the wheel.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. Audi A3 8L1

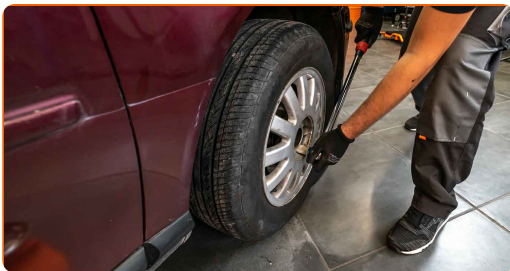
50 Screw in the wheel bolts. Use wheel impact socket #17.



51 Tighten the drive shaft nut. Use 1-3/16" drive 12-point socket. Use a torque wrench. Tighten it to 180 Nm torque.



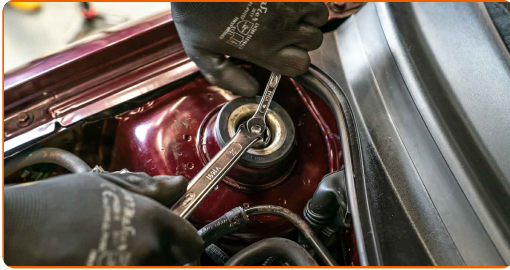
52 Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 Nm torque.



53 Install the wheel rim cover.



54 Tighten the shock strut top mount. Use a drive socket #22. Use a torque wrench. Tighten it to 60 Nm torque.



55 Remove the fender protection cover.



56 Close the hood.



57 Remove the jacks and chocks.

WELL DONE! 

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