

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:

BMW 3 Compact (E46) 325ti 2.5, BMW 3 Compact (E46) 320td 2.0, BMW 3 Compact (E46) 318td 2.0

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: BMW 3 Touring (E46) 330d 3.0

REPLACEMENT: COIL SPRINGS – BMW 3 COMPACT (E46). TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #17
- Combination spanner #19
- Combination spanner #21
- Drive socket # 13
- Drive socket # 18
- Drive socket # 21
- HEX bit no.H6
- HEX bit no.H7
- Wheel impact socket #17
- Shock absorber socket
- Ball joint puller
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: coil springs – BMW 3 Compact (E46). Tip from AUTODOC:

- 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.
- Please note: all work on the car – BMW 3 Compact (E46) – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Open the bonnet.

2

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

3

Loosen the upper fastener of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.

**4**

Secure the wheels with chocks.



5

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

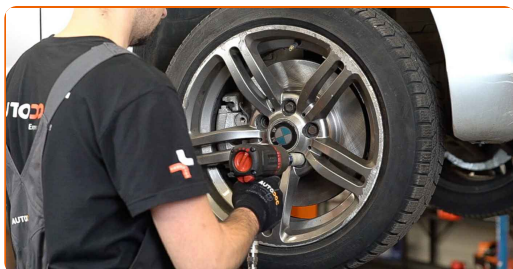


6

Raise the front of the car and secure on supports.

7

Unscrew the wheel bolts.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
BMW 3 Compact (E46)

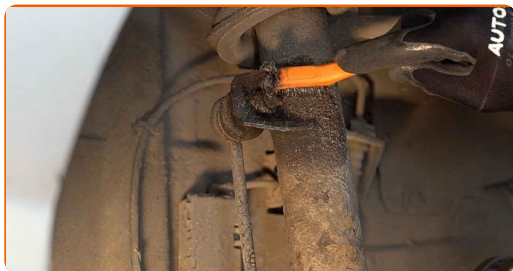
8

Remove the wheel.



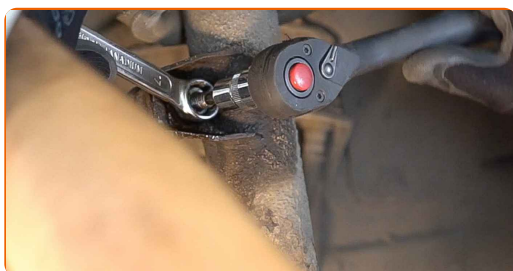
9

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



10

Unscrew the nut and remove the stabilizer rod from the shock strut. Use HEX No.H7. Use a combination spanner #17. Use a ratchet wrench.



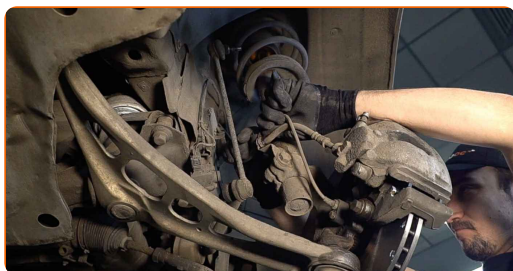
11

Treat the retaining bracket that secures the brake hose and the wiring harness. Use WD-40 spray.



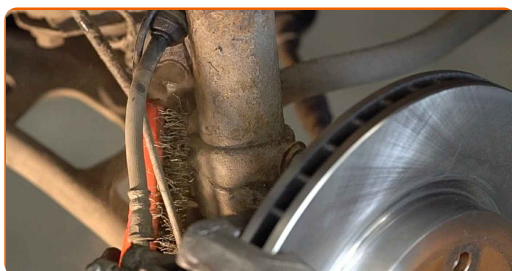
12

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



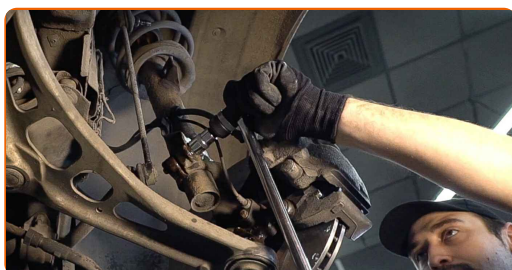
13

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



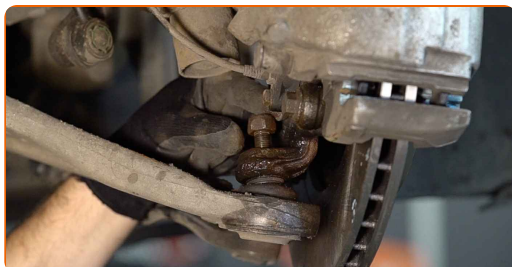
14

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



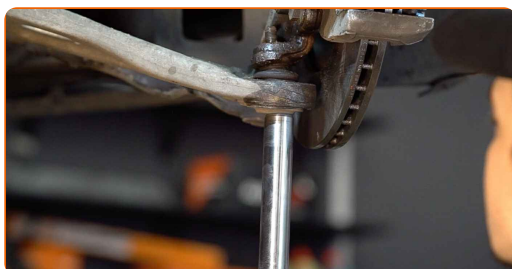
15

Unscrew the ball joint fastening to the steering knuckle. Use a combination spanner #19.



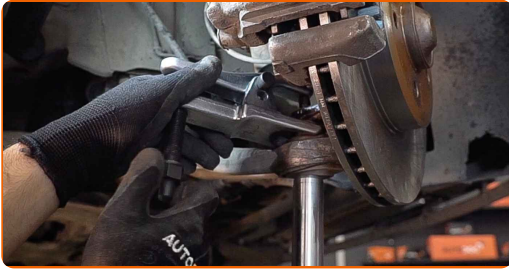
16

Support the arm. Use a hydraulic transmission jack.



17

Disconnect the ball joint from the steering knuckle. Use a ball joint puller.



18

Lower the hydraulic transmission jack by 10-15 cm.

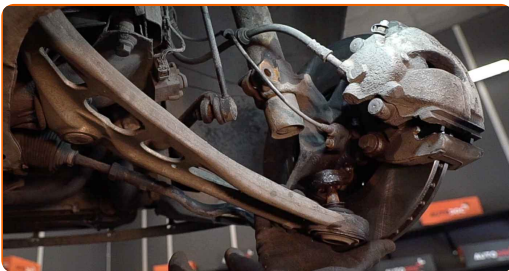


AUTODOC recommends:

- Replacement: coil springs – BMW 3 Compact (E46). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

19

Disconnect the lower arm from the steering knuckle.



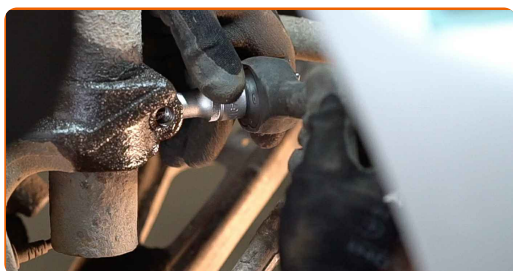
20

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



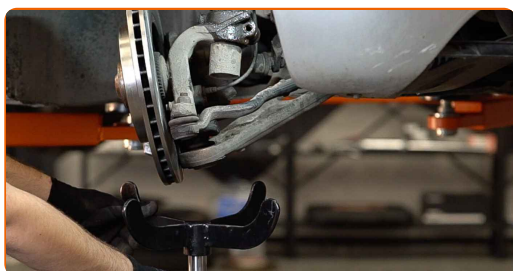
21

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



22

Lower the hydraulic transmission jack by 10-15 cm.

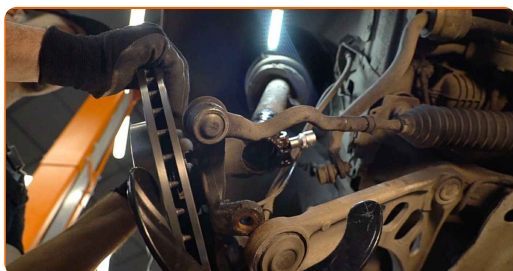


AUTODOC recommends:

- Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

23

Disconnect the steering knuckle from the shock absorber strut.



24

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

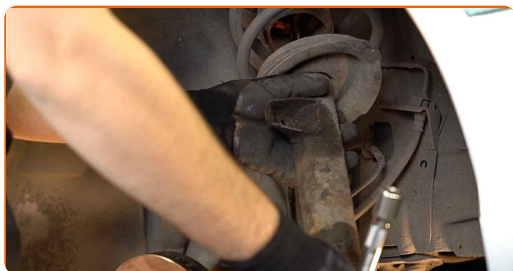


AUTODOC recommends:

- BMW 3 Compact (E46) – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

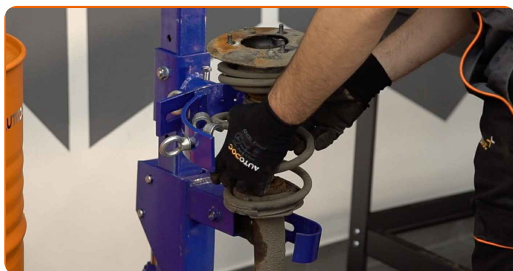
25

Remove the suspension strut.



26

Set the shock absorber strut on the spring compressor tool.



Replacement: coil springs – BMW 3 Compact (E46). 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.

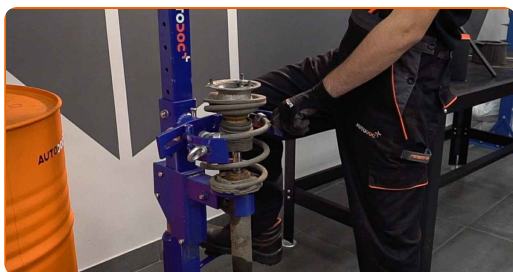
27

Remove the shock strut mount cap. Use a crowbar.



28

Compress the spring.



29

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

