

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:

BMW 3 Saloon (E46) 328i 2.8, BMW 3 Saloon (E46) 320d 2.0, BMW 3 Saloon (E46) 323i 2.5, BMW 3 Saloon (E46) 320i 2.0, BMW 3 Coupe (E46) 323Ci 2.5, BMW 3 Coupe (E46) 328Ci 2.8, BMW 3 Saloon (E46) 316i 1.9, BMW 3 Touring (E46) 320i 2.0, BMW 3 Coupe (E46) 320Ci 2.0, BMW 3 Coupe (E46) 318Ci 1.9, BMW 3 Touring (E46) 318i 1.9, BMW 3 Touring (E46) 328i 2.8, BMW 3 Touring (E46) 320d 2.0, BMW 3 Convertible (E46) 323Ci 2.5, BMW 3 Coupe (E46) 320Ci 2.2, (+ 21)

The steps may slightly vary depending on the car design.

REPLACEMENT: COIL SPRINGS – BMW E46. TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- Combination spanner #19
- Drive socket # 13
- Drive socket # 17
- Drive socket # 18
- Drive socket # 19
- Drive socket # 22
- HEX bit No.H6.
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Water pump pliers
- Flat Screwdriver
- Ball joint puller
- Crow bar
- Hydraulic transmission jack
- Hydraulic strut spring compressor
- Fender cover
- Wheel chock

BUY TOOLS

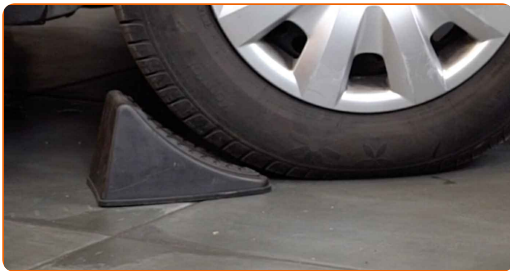
Replacement: coil springs – BMW E46. AUTODOC recommends:

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

REPLACEMENT: COIL SPRINGS – BMW E46. RECOMMENDED SEQUENCE OF STEPS:

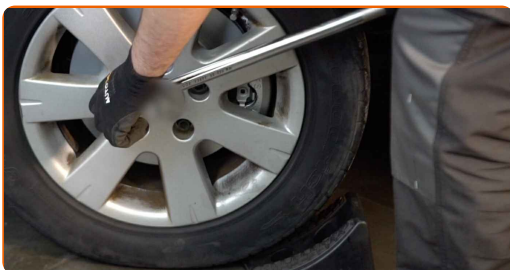
1

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.

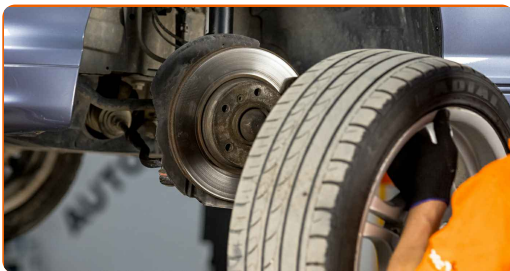


AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. BMW E46

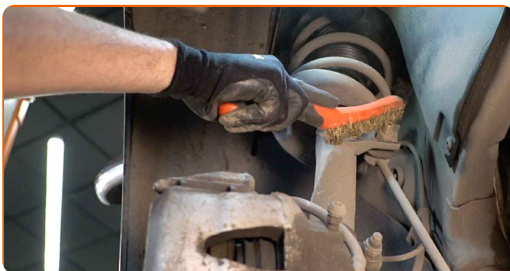
5

Remove the wheel.

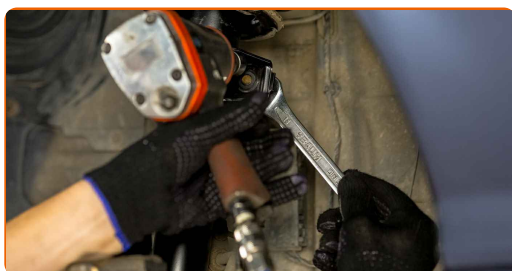


6

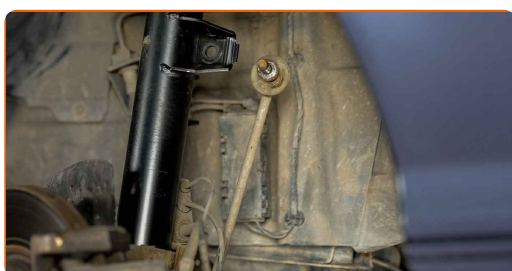
Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



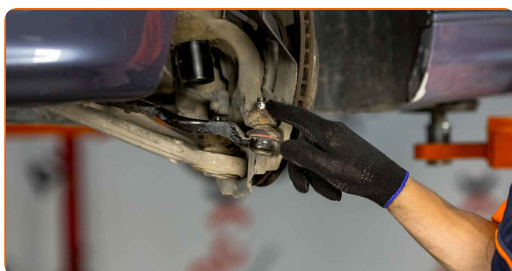
- 7 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #18. Use a drive socket #17. Use a ratchet wrench.



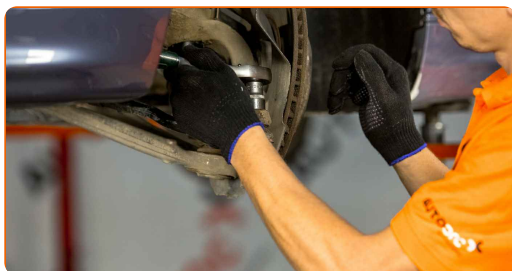
- 8 Remove the stabilizer rod.



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

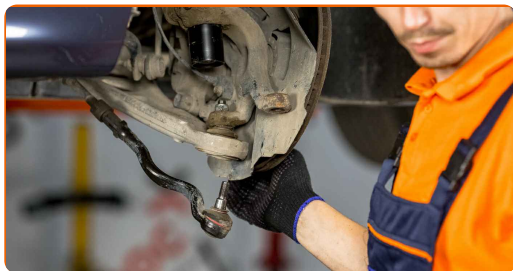


- 10 Unscrew the end fastening nut to the steering knuckle. Use a drive socket #19. Use a ratchet wrench.



11

Disconnect the tie rod end from the steering knuckle. Use a ball joint puller.

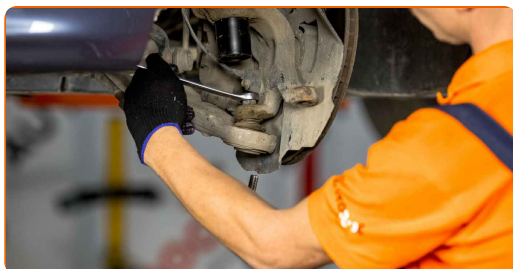


12

Clean the fastener that connects the ball joint to the steering knuckle. Use a wire brush. Use WD-40 spray.

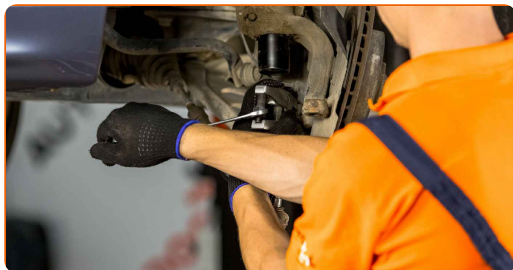
13

Unscrew the ball joint fastening to the steering knuckle. Use a drive socket #19. Use a ratchet wrench.



14

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



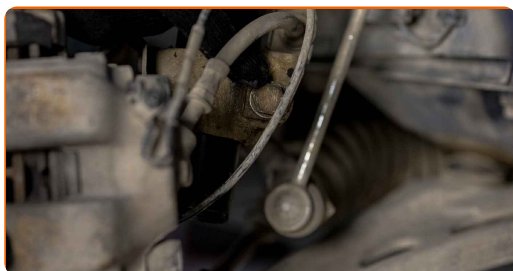
15

Disconnect the ABS sensor wiring.



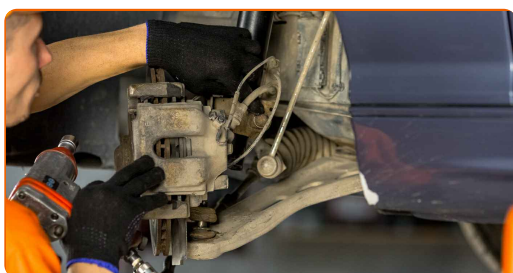
16

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



17

Unscrew the brake hose fastening bracket from the shock strut. Use a drive socket #18. Use a ratchet wrench.

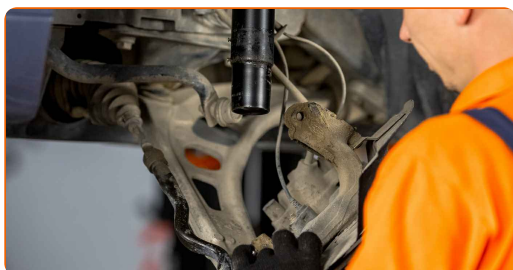


18

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

19

Remove the steering knuckle together with the hub.



20

Lower the car.



21 Open the bonnet.

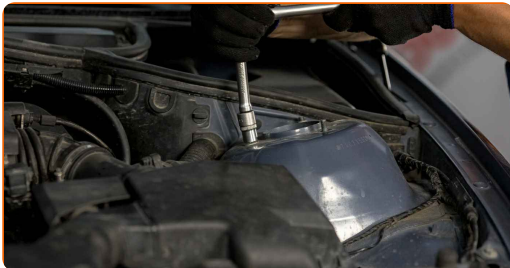


22 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

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



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

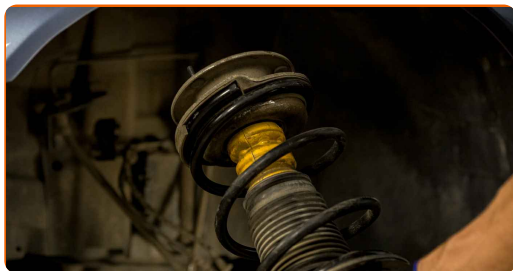


Replacement: coil springs – BMW E46. Tip:

- To avoid injuries, hold the shock strut when undoing the fastening bolts.

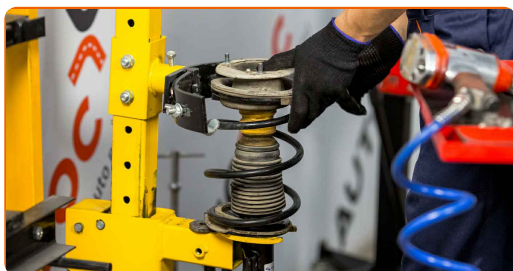
25

Remove the suspension strut.



26

Set the shock absorber strut on the spring compressor tool.



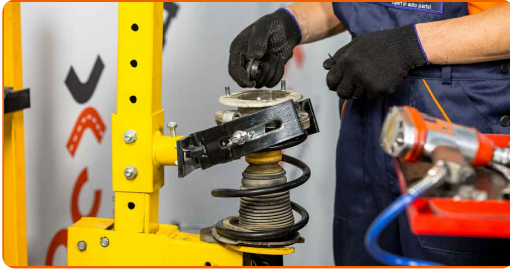
Replacement: coil springs – BMW E46. AUTODOC experts recommend:

- 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.

27

Compress the spring.

- 28 Remove the shock strut mount cap. Use a flat screwdriver.



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

- 30 Remove the strut piston rod nut. Use a drive socket #22. Use a ratchet wrench.



- 31 Remove the top strut mount.



- 32 Release the coil spring.

- 33 Remove the spring.

