



How to change rear  
shock absorbers on **BMW**  
**3 Compact (E46)** –  
replacement guide

### SIMILAR VIDEO TUTORIAL



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

#### **Important!**

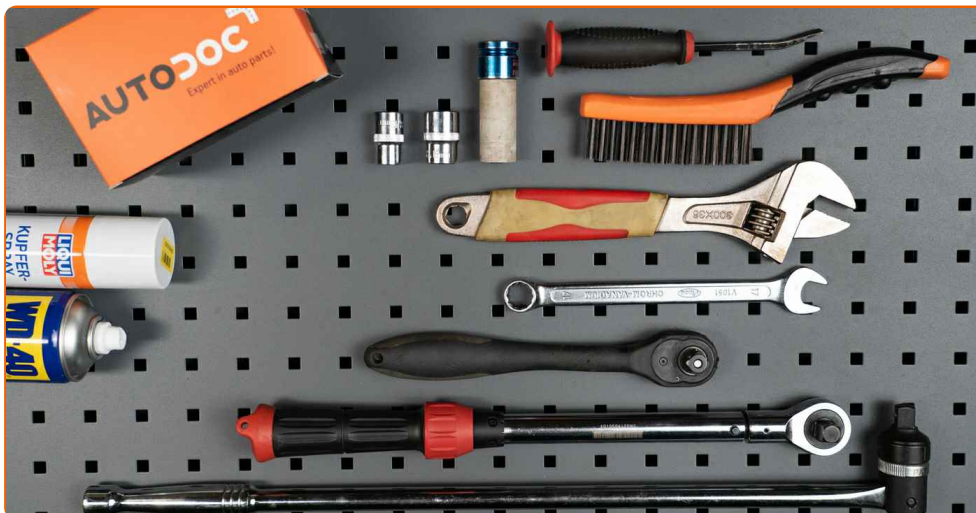
This replacement procedure can be used for:

BMW 3 Compact (E46) 316ti 1.8, BMW 3 Compact (E46) 325ti 2.5, BMW 3 Compact (E46) 318ti 2.0, BMW 3 Compact (E46) 320td 2.0, BMW 3 Compact (E46) 318td 2.0, BMW 3 Compact (E46) 316ti 1.6, BMW 3 Compact (E46) 318Ti 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 Convertible (E46) 318Ci 2.0

**REPLACEMENT: SHOCK ABSORBERS – BMW 3 COMPACT (E46). LIST OF THE TOOLS YOU'LL NEED:**



- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #17
- Drive socket # 13
- Drive socket # 18
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Adjustable wrench
- Tap wrench
- Crow bar
- Vice
- Hydraulic transmission jack
- Wheel chock

**Buy tools**

Replacement: shock absorbers – BMW 3 Compact (E46). AUTODOC recommends:

- Both shock absorbers of the rear suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock absorbers of the rear 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** Press and hold the folding roof control switch. Hold the button pressed until you get access to the upper fasteners of the shock absorber.

**2** Remove the shock strut mount caps. Use a crowbar.



**3** Clean the fasteners of the shock absorber upper mount. Use WD-40 spray.



4

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



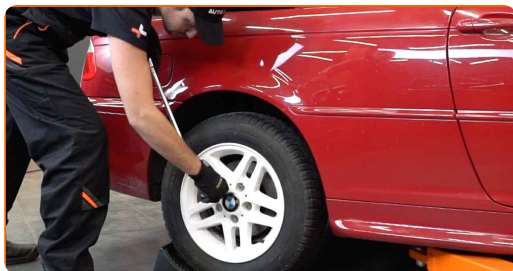
5

Secure the wheels with chocks.



6

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

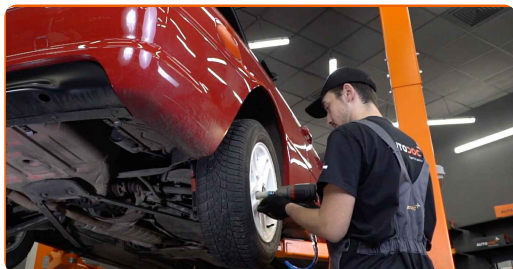


7

Raise the rear of the car and secure on supports.

8

Unscrew the wheel bolts.



Replacement: shock absorbers – BMW 3 Compact (E46). Tip:

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

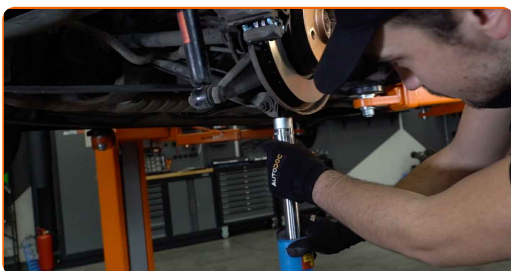
9

Remove the wheel.



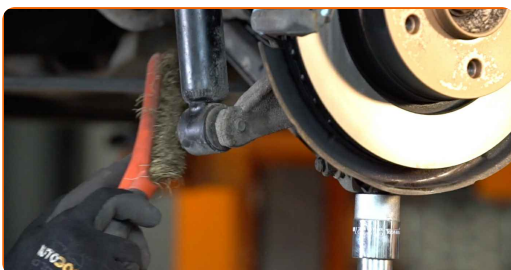
10

Support the arm. Use a hydraulic transmission jack.



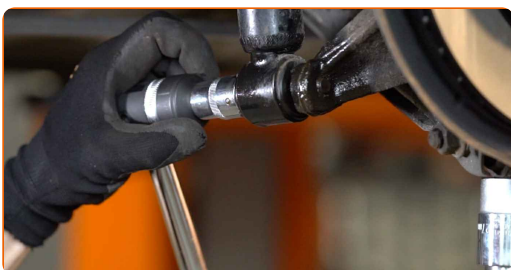
11

Clean the shock absorber fasteners. Use a wire brush. Use WD-40 spray.

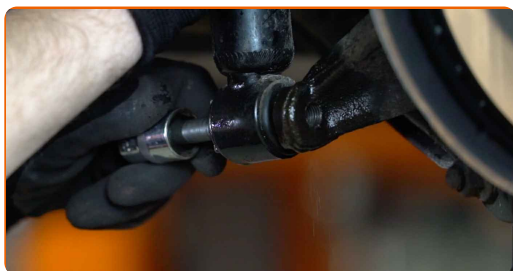


12

Unscrew the lower fastener of the shock absorber. Use a drive socket #18. Use a tap wrench.



**13** Remove the fastening bolt.



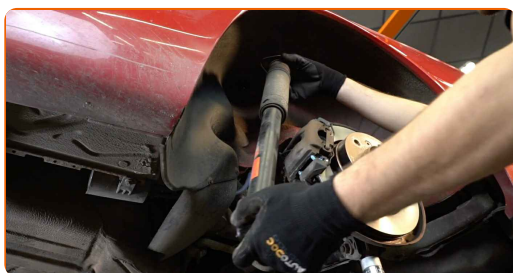
**14** Unscrew the upper fastener of the shock absorber. Use a drive socket #13. Use a ratchet wrench.



**AUTODOC recommends:**

- Important! Hold the shock absorber while unscrewing the fastening bolts. BMW 3 Compact (E46)

**15** Remove the shock absorber.



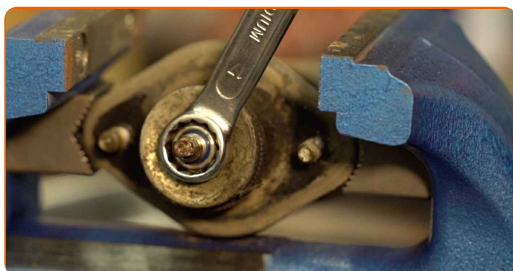
**16** Grip the shock absorber in a vice.



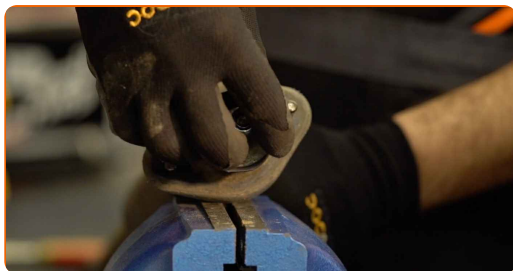
**17** Clean the shock absorber rod fastener. Use a wire brush.



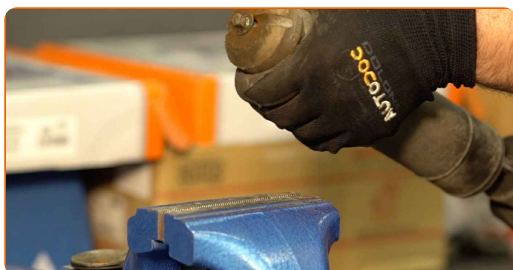
**18** Remove the shock absorber piston rod fastening. Use a combination spanner #17.



**19** Release the vice and take out the shock absorber.



**20** Remove the shock absorber mount, boot and bump stop.



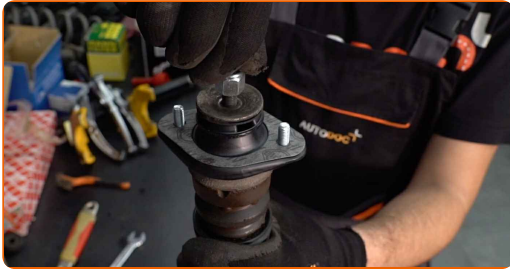


Replacement: shock absorbers – BMW 3 Compact (E46). AUTODOC recommends:

- Thoroughly examine the shock absorber mount, dust boot, bump stop. Replace them if necessary.
- Before installing a new shock absorber you should pump it manually 3-5 times.

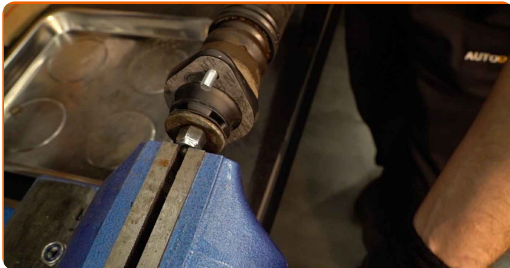
21

Install the mount, boot and bump stop onto a new shock absorber.



22

Grip the shock absorber in a vice.



23

Screw the shock strut piston rod upper fastening. Use a combination spanner #17. Use an adjustable wrench. Use a torque wrench. Tighten it to 20 Nm torque.



**24** Release the vice and take out the shock absorber.



**25** Clean the shock absorber mounting seats. Use a wire brush. Use WD-40 spray.



**26** Place the shock absorber in the wheel arch and secure it.



Replacement: shock absorbers – BMW 3 Compact (E46). AUTODOC experts recommend:

- To avoid injury, hold the shock absorber cautiously tight when screwing in the fastening bolts.

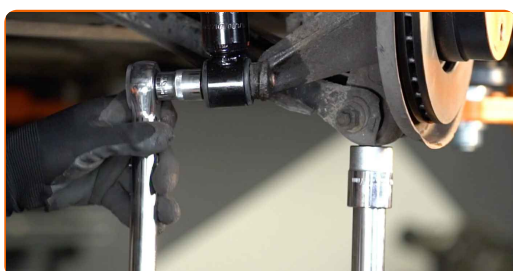
27

Screw the upper fastener of the shock absorber. Use a drive socket #13. Do not tighten it.



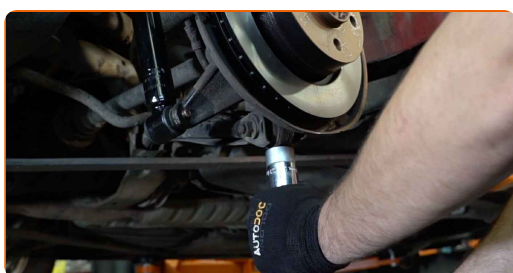
28

Tighten the lower fastener of the shock absorber. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.



29

Remove the support from under the arm.



**AUTODOC recommends:**

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

30

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



31

Install the wheel.



**AUTODOC recommends:**

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

32

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



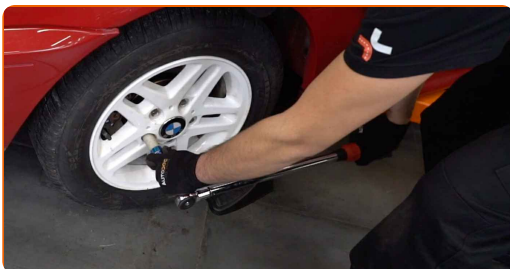
**33** Tighten the top shock absorber fastening. Use a drive socket #13. Use a torque wrench. Tighten it to 28 Nm torque.



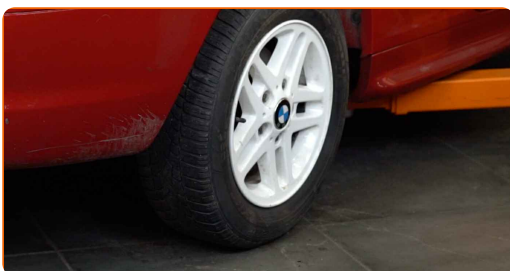
**34** Install the shock strut mount caps.



**35** Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 120 Nm torque.



**36** Remove the jacks and chocks.



**WELL DONE!** 

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