



How to change rear
shock absorbers on **BMW**
E46 touring –
replacement guide

VIDEO TUTORIAL



i Important!

This replacement procedure can be used for:

BMW 3 Touring (E36) 320i 2.0, BMW 3 Touring (E36) 328i 2.8, BMW 3 Touring (E36) 318tds 1.7, BMW 3 Touring (E36) 325tds 2.5, BMW 3 Touring (E36) 323i 2.5, BMW 3 Touring (E36) 318i 1.8, BMW 3 Saloon (E46) 318i 1.9, 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, (+ 43)

The steps may slightly vary depending on the car design.

REPLACEMENT: SHOCK ABSORBERS – BMW E46
TOURING. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #16
- Drive socket # 10
- Drive socket # 13
- Drive socket # 18
- Torx bit T25
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Adjustable wrench
- Tap wrench
- Ear clamp pliers
- Phillips screwdriver
- Crow bar
- Vice
- Hydraulic transmission jack
- Wheel chock

BUY TOOLS

Replacement: shock absorbers – BMW E46 touring. AUTODOC experts recommend:

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

REPLACEMENT: SHOCK ABSORBERS – BMW E46 TOURING. TAKE THE FOLLOWING STEPS:

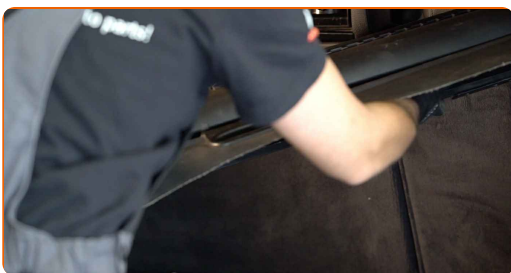
1

Open the boot lid.



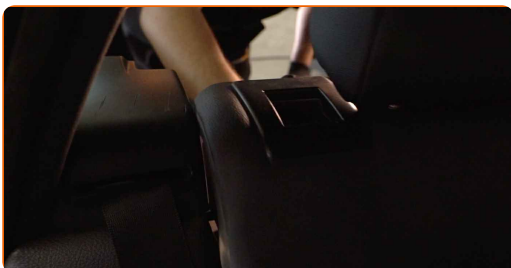
2

Move the folding shelf and detach it from the retainers. By doing this, you will get access to the side trim plastic panels.

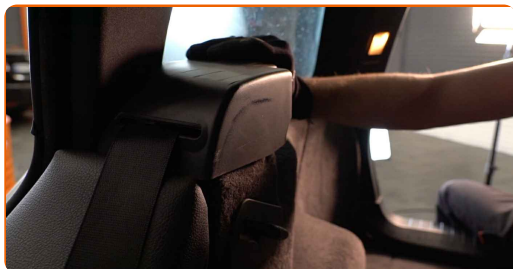


3

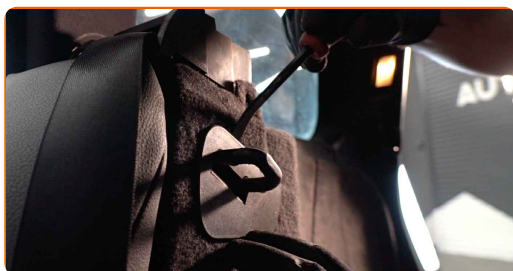
Fold down the backrests of the rear seats.



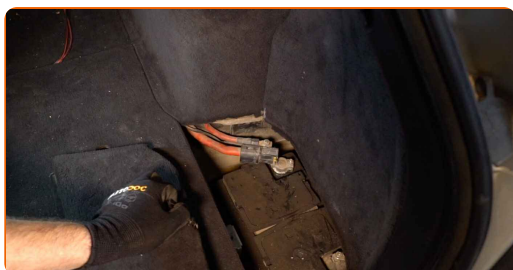
4 Remove the seat belt trim cover. Use a crowbar.



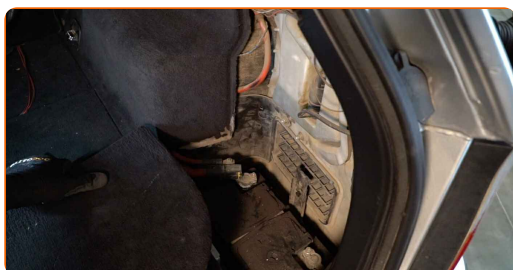
5 Remove the plastic clip of the boot front side lining. Use a crowbar.



6 Remove the battery cover.



7 Detach the boot rear side lining.



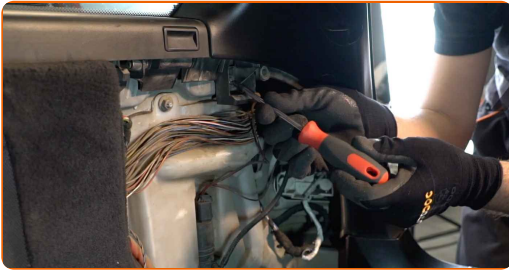
8 Unscrew the fasteners of the side plastic trim panel. Use Torx T25.



9.1 Unscrew the fasteners of the boot vent panel.



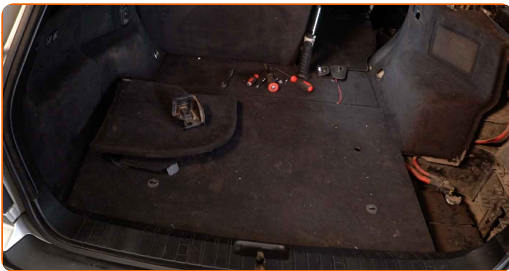
9.2 Use a drive socket #10. Use a Phillips screwdriver.



10 Unscrew the fasteners of the boot front side lining. Use a Phillips screwdriver.



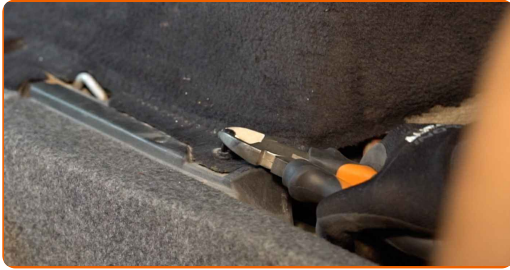
11 Detach the boot front side lining from the upper fasteners. Use a crowbar.



AUTODOC recommends:

- Replacement: shock absorbers – BMW E46 touring. To avoid damaging the part during installation, do not use excessive force.

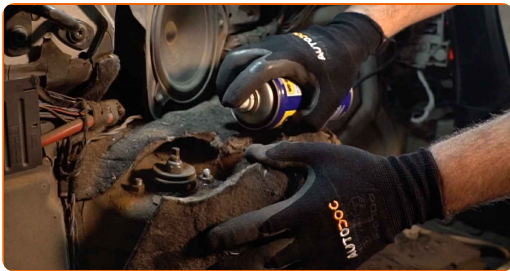
12 Remove the lower clip of the boot front side lining. Use ear clamp pliers.



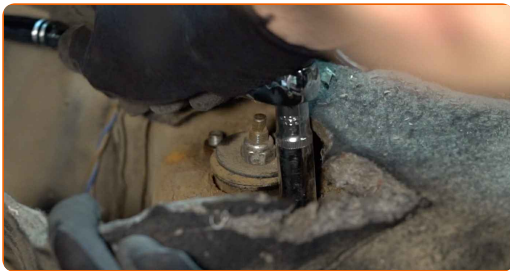
13 Remove the boot front side lining. Use a crowbar.



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



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



16 Secure the wheels with chocks.



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



18 Raise the rear of the car and secure on supports.



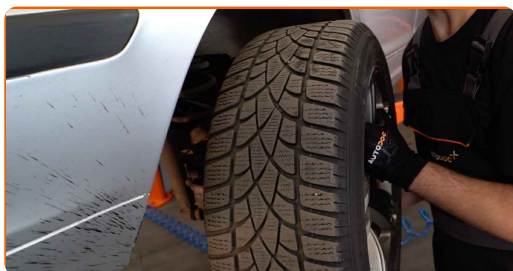
19 Unscrew the wheel bolts.



Replacement: shock absorbers – BMW E46 touring. AUTODOC recommends:

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

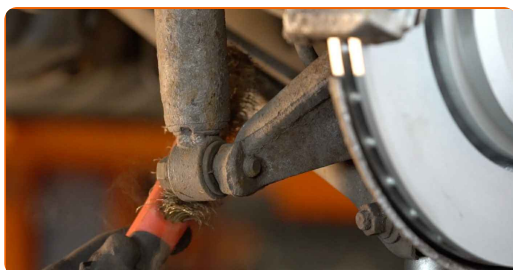
20 Remove the wheel.



21 Support the arm. Use a hydraulic transmission jack.



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

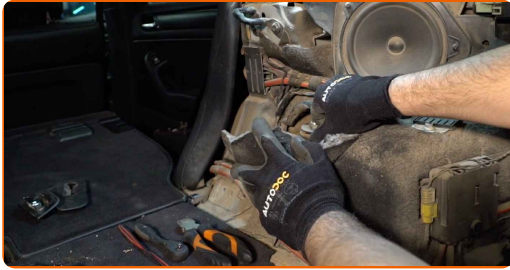


23 Unscrew the lower fastener of the shock absorber. Use a drive socket #18. Use a tap wrench.



24

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

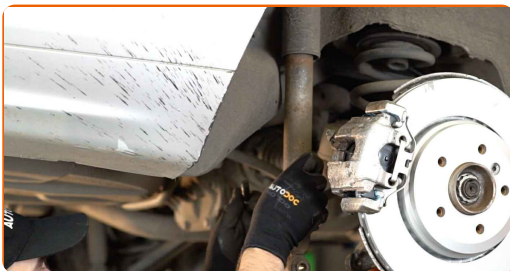


AUTODOC recommends:

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

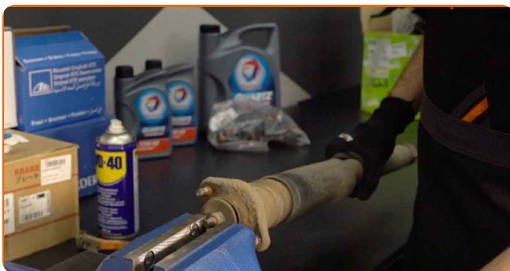
25

Remove the shock absorber.



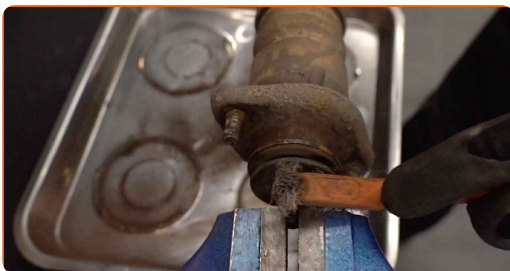
26

Grip the shock absorber in a vice.



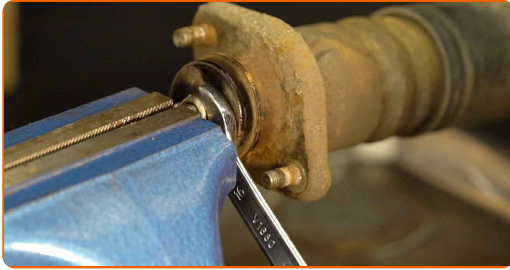
27

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



28

Remove the shock absorber piston rod fastening. Use a combination spanner #16.



29

Release the vice and take out the shock absorber.



30

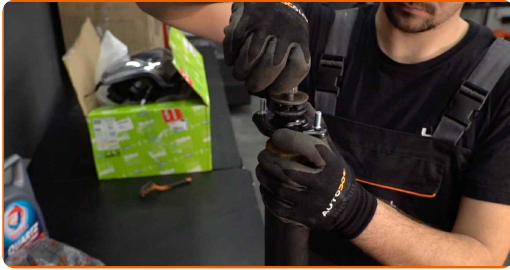
Remove the shock absorber mount, boot and bump stop.



AUTODOC recommends:

- Replacement: shock absorbers – BMW E46 touring. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.
- Before installing a new shock absorber you should pump it manually 3-5 times.

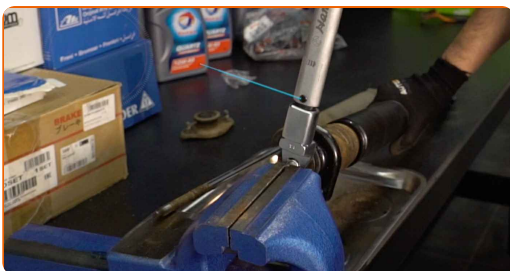
31 Install the mount, boot and bump stop onto a new shock absorber.



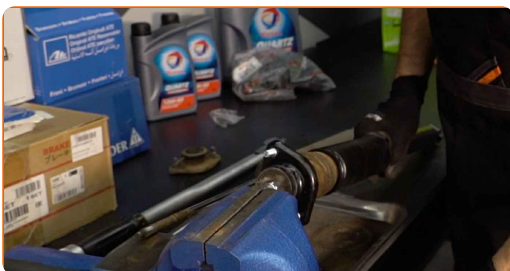
32 Grip the shock absorber in a vice.



33 Screw the shock strut piston rod upper fastening. Use a combination spanner #16. Use an adjustable wrench. Use a torque wrench. Tighten it to 20 Nm torque.



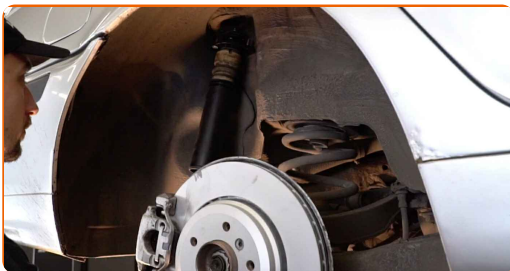
34 Release the vice and take out the shock absorber.



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

36

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



Replacement: shock absorbers – BMW E46 touring. Tip:

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

37

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



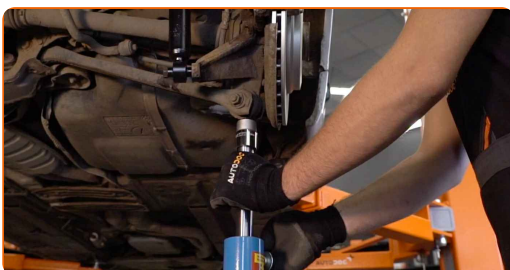
38

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



39

Remove the support from under the arm.



AUTODOC recommends:

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

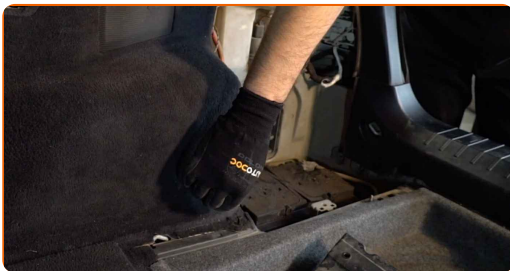
40

Install the boot front side lining.



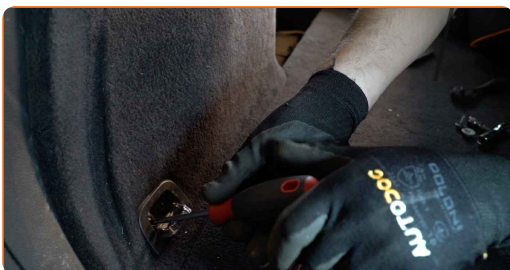
41

Install the lower clip of the boot front side lining.



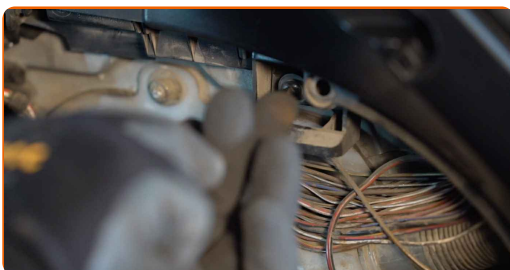
42

Screw the fasteners of the boot front side lining. Use a Phillips screwdriver.



43

Screw the side fasteners of the boot vent panel. Use a Phillips screwdriver.



44 Install the plastic clip of the boot front side lining.



45 Screw the upper fasteners of the boot vent panel. Use a drive socket #10. Use a ratchet wrench.



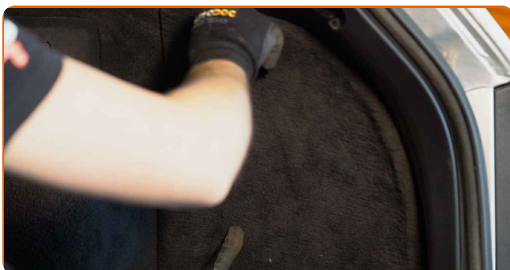
46 Screw the fasteners of the side plastic trim panel. Use Torx T25.



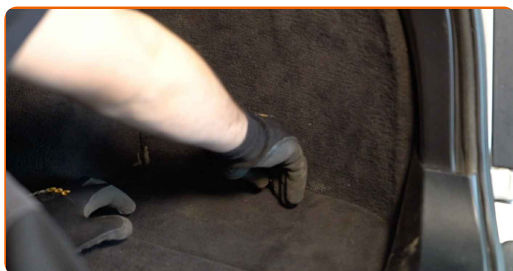
47 Install the seat belt trim cover.



48 Install the boot rear side lining.



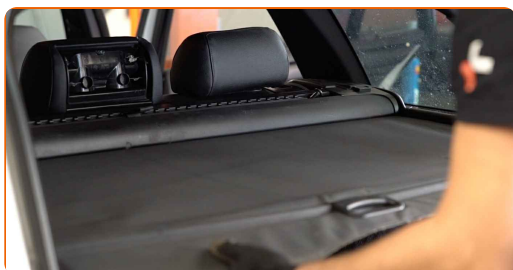
49 Install the battery cover.



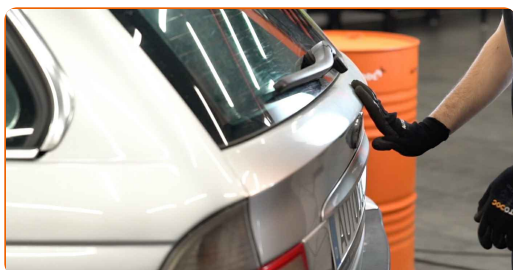
50 Return the seat to its original position.



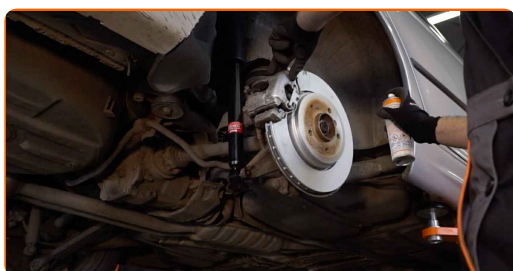
51 Install the folding shelf to its mounting seat.



52 Close the lid of the luggage compartment.



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



54

Install the wheel.



AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. BMW E46 touring

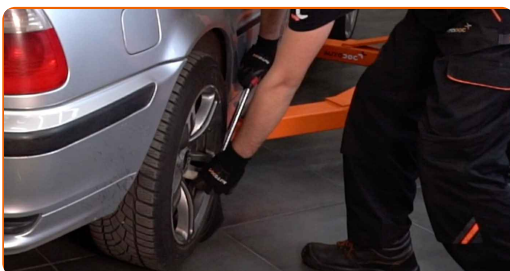
55

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



56

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



57

Remove the jacks and chocks.



WELL DONE! 

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