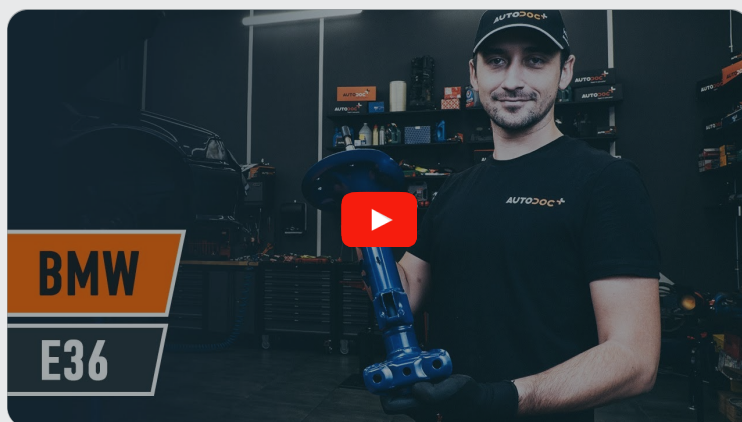




How to change front
suspension strut on
BMW E36 – replacement
guide

VIDEO TUTORIAL

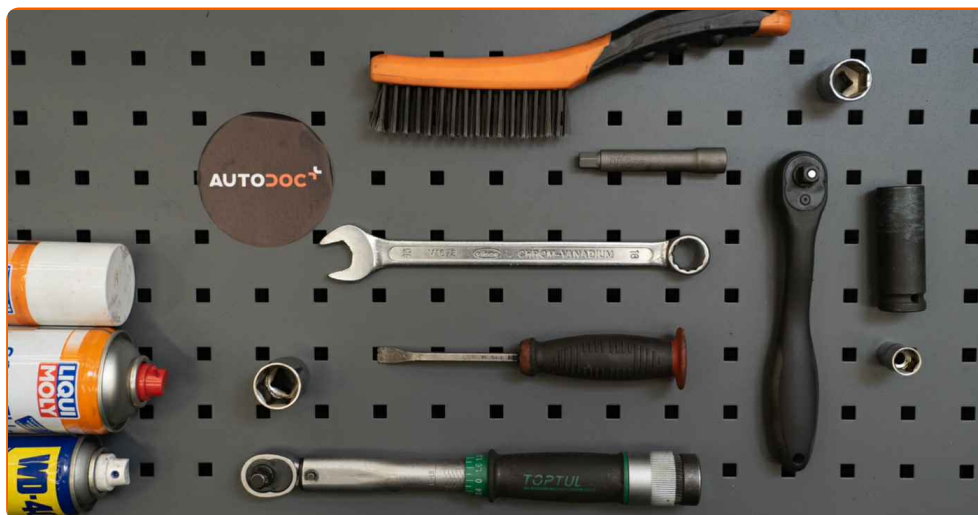
** Important!**

This replacement procedure can be used for:

BMW 3 Saloon (E36) 320i 2.0, BMW 3 Coupe (E36) 320i 2.0, BMW 3 Saloon (E36) 325i 2.5, BMW 3 Coupe (E36) 325i 2.5, BMW 3 Saloon (E36) 325td 2.5, BMW 3 Saloon (E36) 325tds 2.5, BMW 3 Convertible (E36) 318i 1.8, 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 Saloon (E36) 328i 2.8, BMW 3 Coupe (E36) 328i 2.8, BMW 3 Coupe (E36) 323i 2.5, BMW 3 Touring (E36) 323i 2.5, (+ 2)

The steps may slightly vary depending on the car design.

REPLACEMENT: SUSPENSION STRUT – BMW E36.
 TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Torque wrench
- Combination spanner #18
- Drive socket # 9
- Drive socket # 13
- Drive socket # 18
- Drive socket # 19
- Drive socket # 22
- Wheel impact socket #17
- Ratchet wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

BUY TOOLS

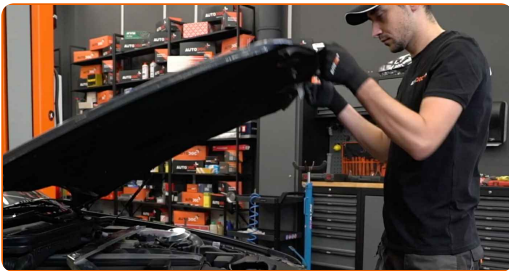
Replacement: suspension strut – BMW E36. Tip from AUTODOC experts:

- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- All work should be done with the engine stopped.

REPLACEMENT: SUSPENSION STRUT – BMW E36. USE THE FOLLOWING PROCEDURE:

1

Open the bonnet.



2

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

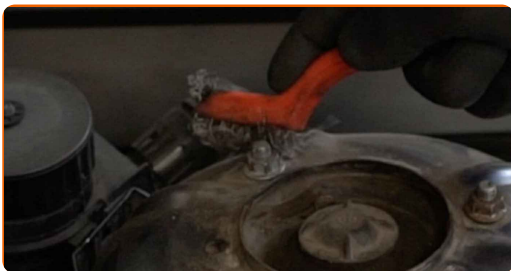


3

Secure the wheels with chocks.

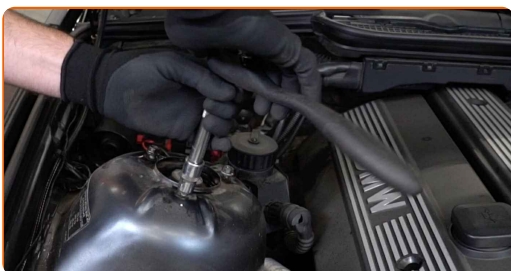
4

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



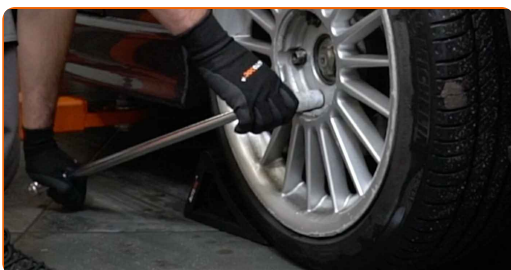
5

Loosen the upper fasteners of the suspension strut. Use a drive socket #13. Use a ratchet wrench.



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.
BMW E36

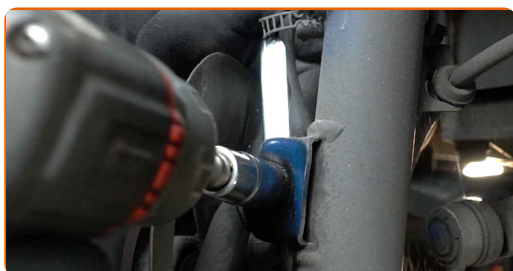
9 Remove the wheel.



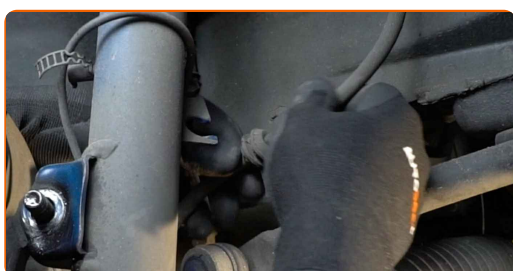
10 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



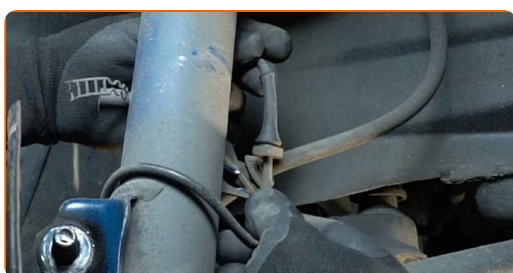
- 11 Unscrew the fasteners connecting the suspension strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



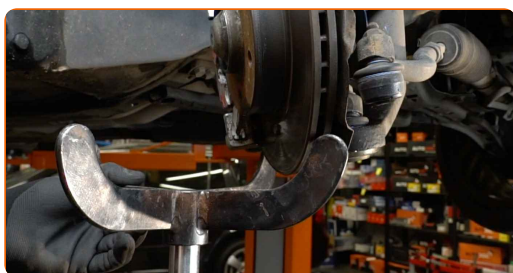
- 12 Detach the brake hose from the shock strut.



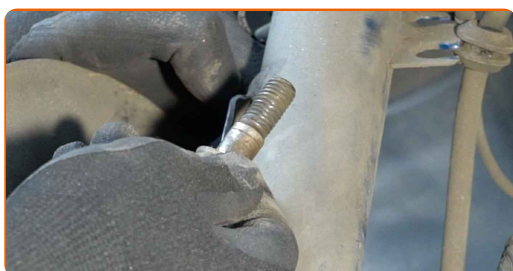
- 13 Disconnect the ABS sensor wiring.



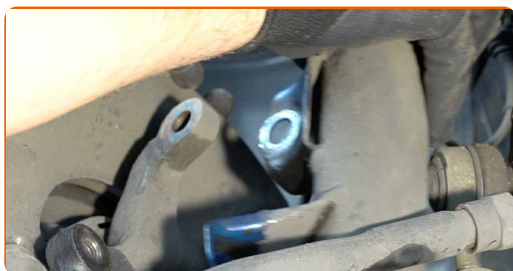
- 14 Prop up the steering knuckle. Use a hydraulic transmission jack.



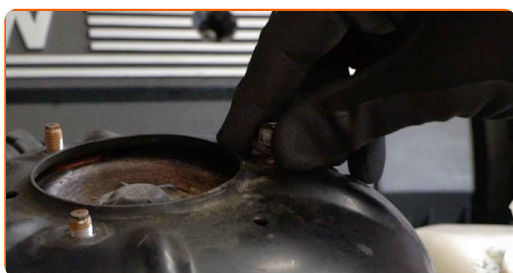
- 15 Remove the fastening bolts.



16 Disconnect the steering knuckle from the shock absorber strut.



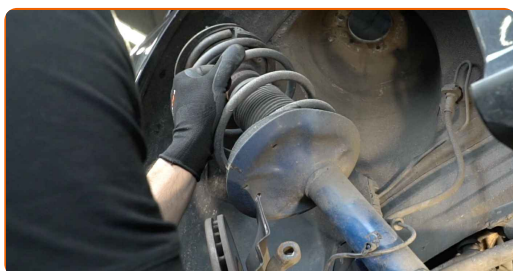
17 Unscrew the upper fasteners of the shock strut.



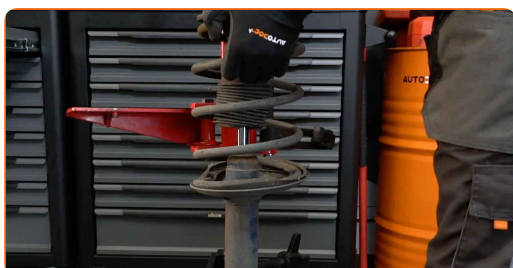
AUTODOC recommends:

- BMW E36 – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

18 Remove the suspension strut.



19 Set the shock absorber strut on the spring compressor tool.

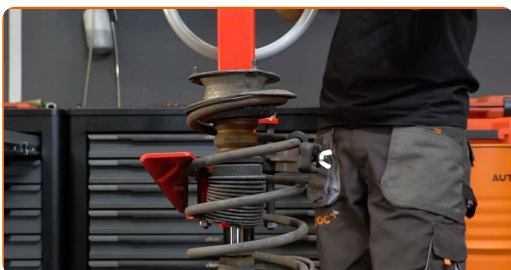


Replacement: suspension strut – BMW E36. Professionals recommend:

- 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.

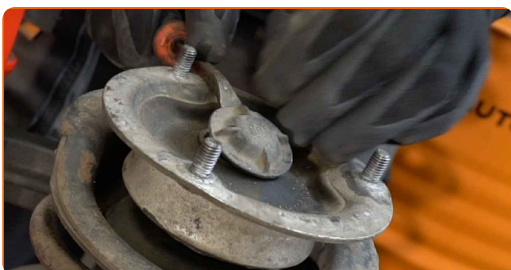
20

Compress the spring.



21

Remove the shock strut mount cap. Use a crowbar.



22

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



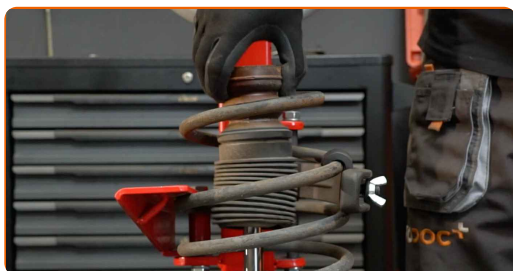
23

Remove the strut piston rod nut. Use a drive socket #9. Use a drive socket #22. Use a ratchet wrench.



24

Remove the shock absorber mount, boot and bump stop.

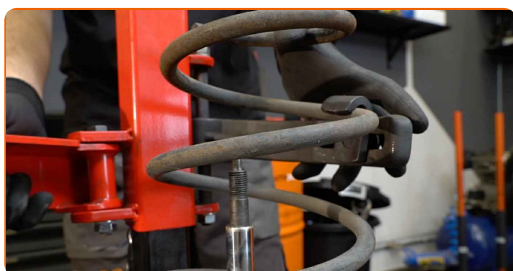


Replacement: suspension strut – BMW E36. AUTODOC recommends:

- Thoroughly examine the shock absorber mount, dust boot, bump stop. Replace them if necessary.

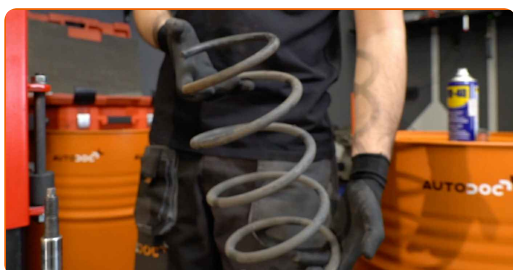
25

Release the coil spring.

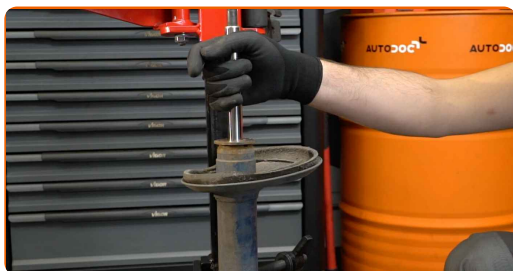


26

Remove the spring.



27 Remove the old shock absorber from the hydraulic coil spring compressor.



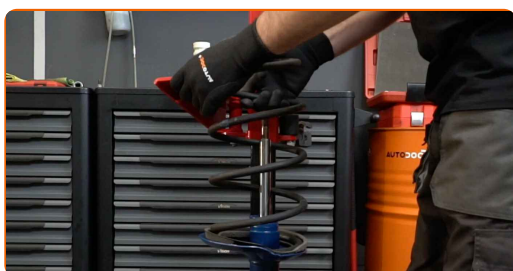
Replacement: suspension strut – BMW E36. Tip:

- Before installing a new shock absorber you should pump it manually 3-5 times.

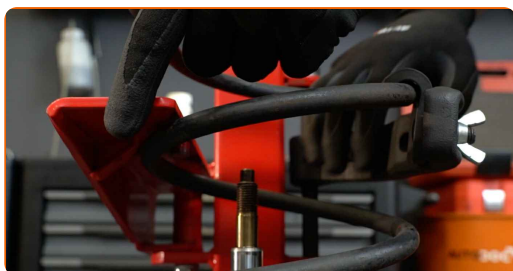
28 Install the new shock absorber on the hydraulic coil spring compressor.



29 Install the spring on the shock absorber.



30 Compress the spring.



31 Install the dust sleeve and the bump stop on the new shock absorber.



32 Install the upper strut mount and the strut mount bearing.



33 Tighten the shock strut piston rod nut. Use a drive socket #9. Use a drive socket #19. Use a torque wrench. Tighten it to 52 Nm torque.



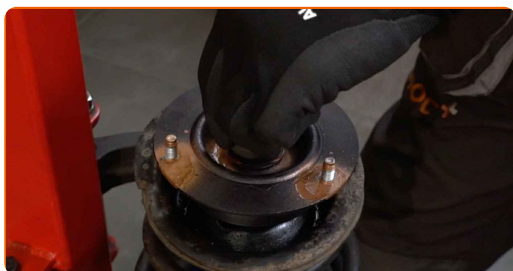
Replacement: suspension strut – BMW E36. Tip from AUTODOC:

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

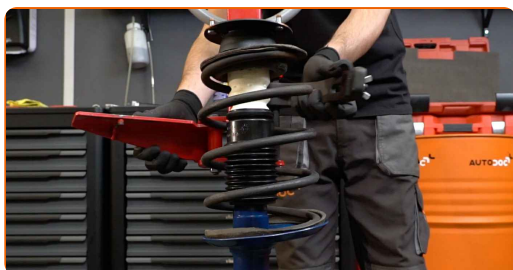
34 Treat the shock strut rod. Use copper grease.



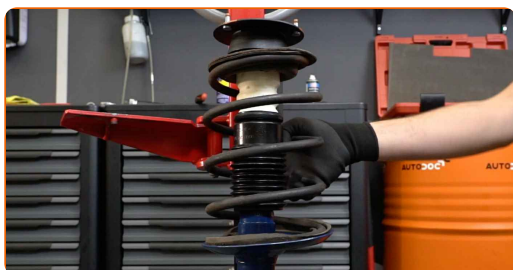
35 Install the shock strut mount cap.



36 Decompress the spring.



37 Remove the assembled shock strut.



38 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



39 Install the shock strut into the wheel arch.



40 Secure the upper fasteners of the shock strut. Do not tighten it.

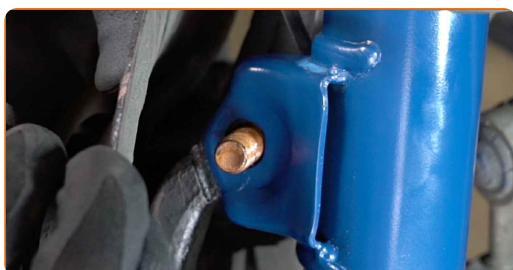
AUTODOC recommends:

- BMW E36 – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

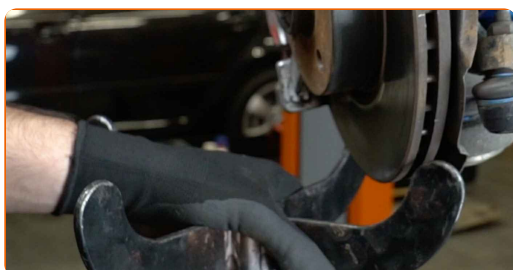
41 Fix the shock absorber strut on the steering knuckle.



42 Install the fastening bolts.



43 Remove the support from under the steering knuckle.

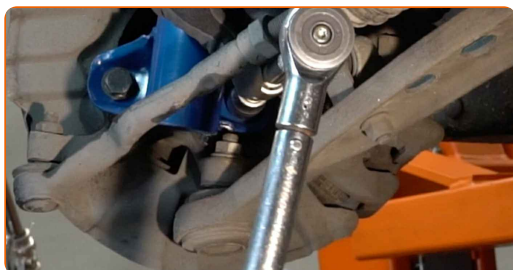


AUTODOC recommends:

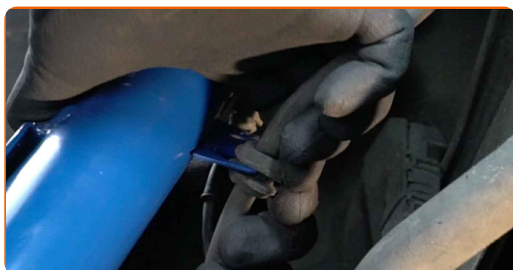
- Replacement: suspension strut – BMW E36. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

44 Screw in the fasteners connecting the suspension strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

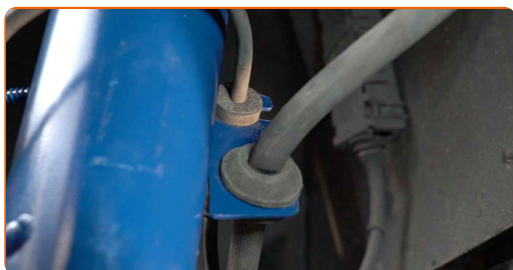
45 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 107 Nm torque.



46 Attach the brake hose.



47 Connect the ABS sensor wiring.



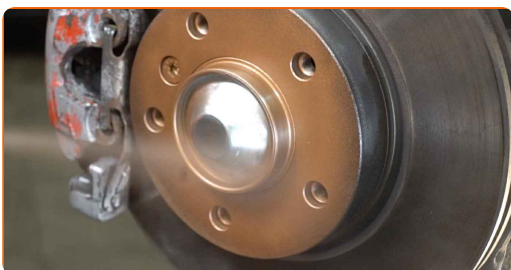
48 Treat the shock strut fasteners. Use copper grease.



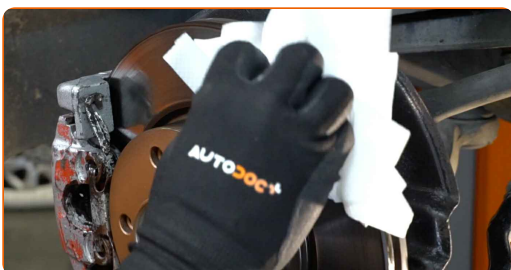
49 Clean the wheel rim mounting seat. Use a wire brush.



50 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



51 Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

- Replacement: suspension strut – BMW E36. After applying the spray, wait a few minutes.

52 Install the wheel.



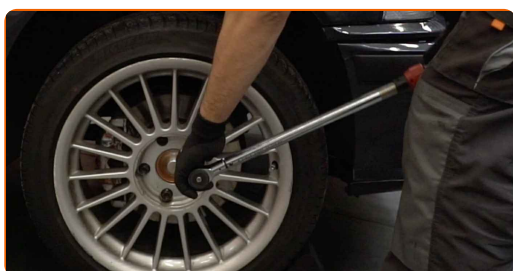
AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW E36

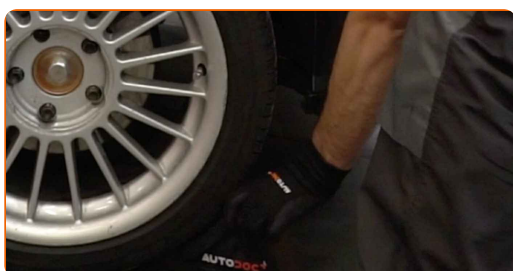
53 Screw in the wheel bolts. Use wheel impact socket #17.



54 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.



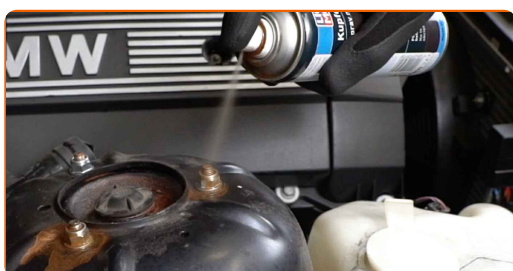
55 Remove the jacks and chocks.



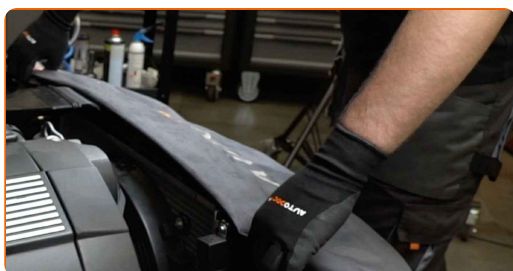
56 Tighten the upper fasteners of the shock strut. Use a drive socket #13. Use a torque wrench. Tighten it to 32 Nm torque.



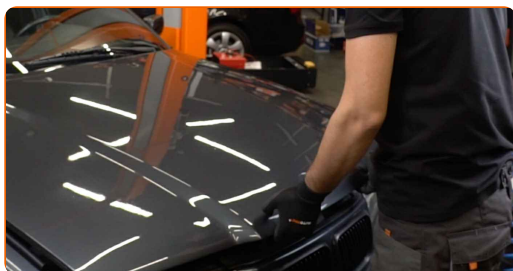
57 Treat the shock strut fasteners. Use copper grease.



58 Remove the fender protection cover.



59 Close the hood.



WELL DONE! 

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