



How to change front
suspension strut on **DS**
DS 3 – 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:

DS DS 3 1.2 THP 130

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: PEUGEOT 208 I Hatchback (CA_, CC_) 1.2

REPLACEMENT: SUSPENSION STRUT – DS DS 3. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Copper grease
- HEX bit No.H7.
- Combination spanner #19
- Drive socket # E8
- Drive socket # 16
- Drive socket # 18
- Drive socket # 21
- Drive socket # 32
- Wheel impact socket #17
- Shock absorber socket
- Ratchet wrench
- Torque wrench
- Pin punch
- Hammer
- Tap wrench
- Rubber mallet
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: suspension strut – DS DS 3. Tip from AUTODOC experts:

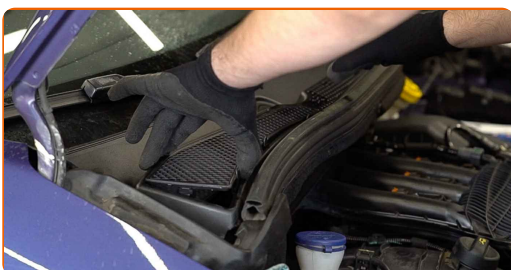
- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- All work should be done with the engine stopped.

REPLACEMENT: SUSPENSION STRUT – DS DS 3. RECOMMENDED SEQUENCE OF STEPS:

1 Open the bonnet.

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

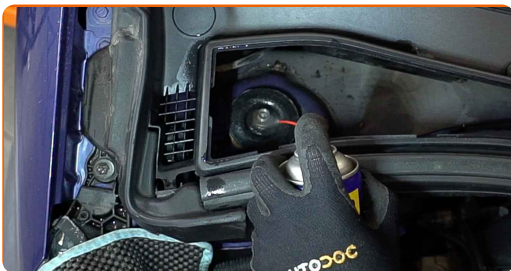
3 Remove the wiper cowl grille located on the right side.



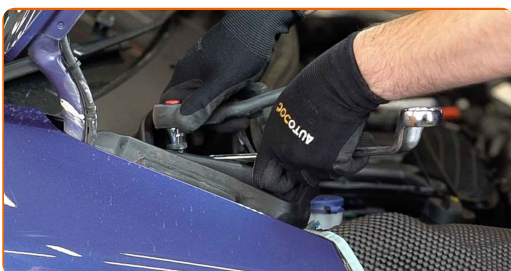
4 Remove the shock strut mount cap.



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



6 Loosen the upper fastener of the shock strut mount. Use a drive socket #21. Use HEX No.H7. Use a ratchet wrench.



7 Secure the wheels with chocks.

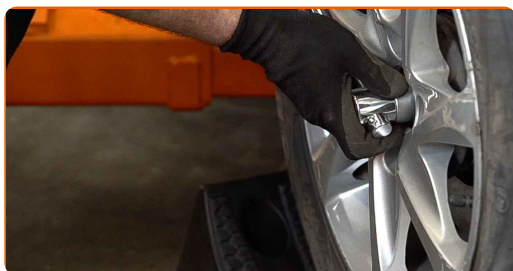


8 Loosen the wheel mounting bolts. Use wheel impact socket #17.



9

Loosen the fastener of the driveshaft. Use a drive socket #32. Use a tap wrench.

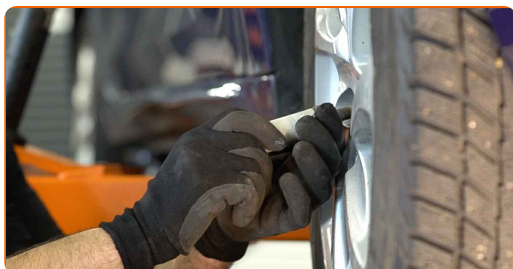


10

Raise the front of the car and secure on supports.

11

Unscrew the wheel bolts.



AUTODOC recommends:

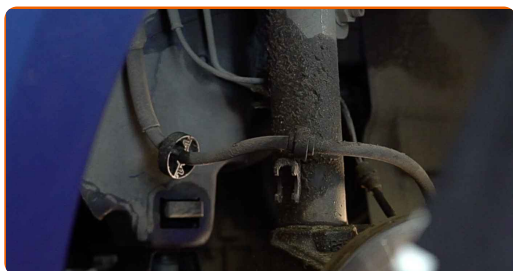
- Important! Hold the wheel while unscrewing the fastening bolts. DS DS 3

12

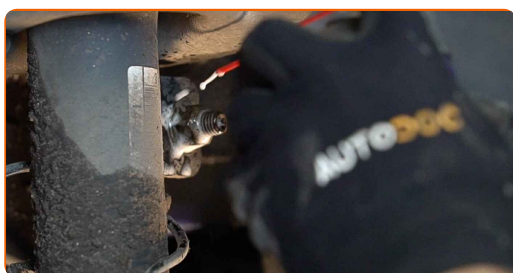
Remove the wheel.



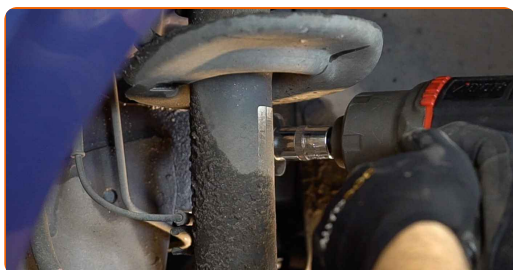
13 Disconnect the wiring and the brake hose from the bracket on the shock strut.



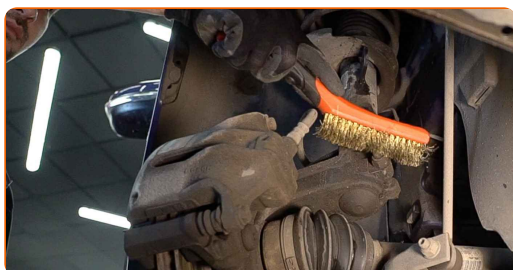
14 Clean the shock strut fasteners. Use a wire brush. Use WD-40 spray.



15 Unscrew the nut and remove the stabilizer rod from the shock strut. Use a drive socket #16.

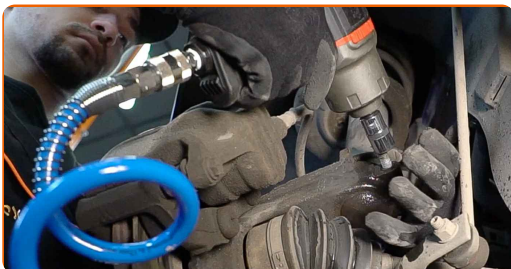


16 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



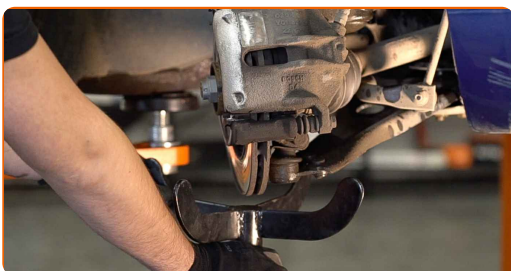
17

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



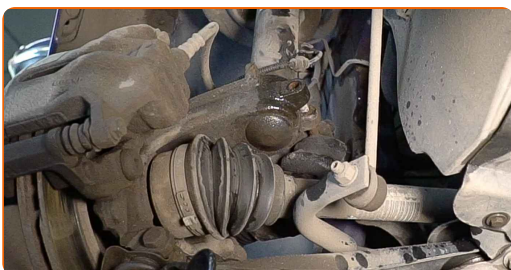
18

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



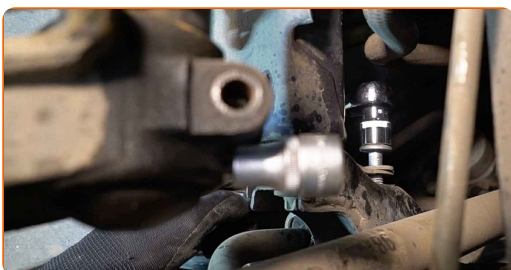
19

Take out the fasteners connecting the shock strut to the steering knuckle.



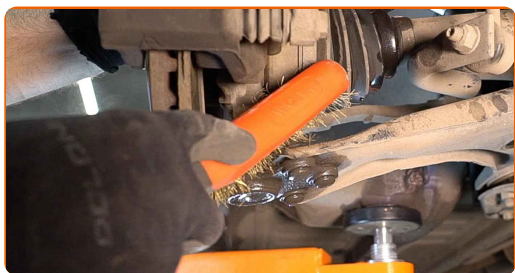
20

Unscrew the fasteners of the stabilizer bush brackets. Use a drive socket #18. Use a ratchet wrench.



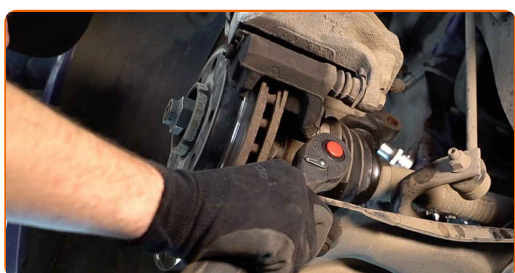
21

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



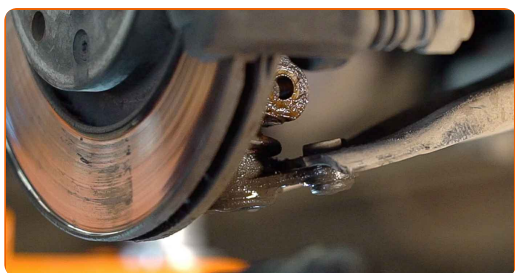
22

Unscrew the ball joint fastening to the steering knuckle. Use a drive socket #E8. Use a drive socket #18. Use a ratchet wrench.



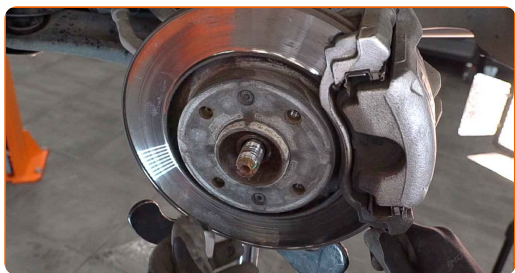
23

Remove the fastening bolt.



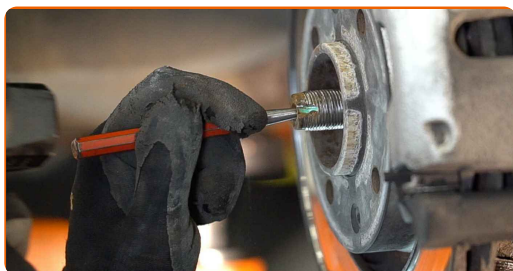
24

Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #32. Use a tap wrench.



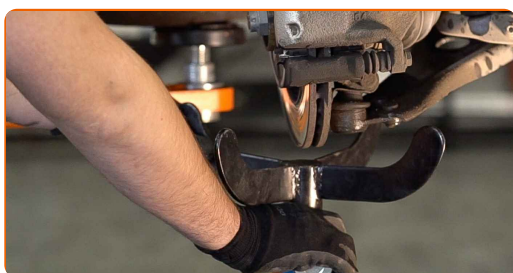
25

Detach the driveshaft from the steering knuckle. Use a pin punch. Use a hammer.



26

Lower the hydraulic transmission jack by 10-15 cm.

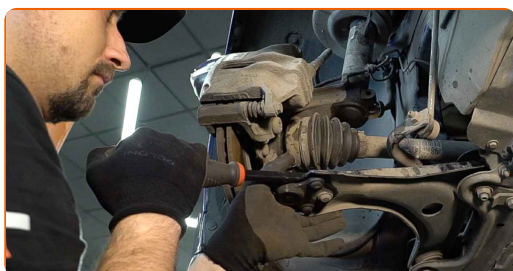


Replacement: suspension strut – DS DS 3. Tip:

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

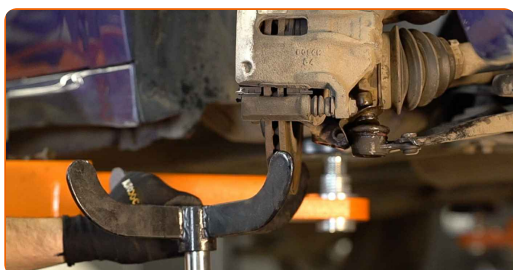
27

Disconnect the lower arm from the steering knuckle. Use a crowbar.

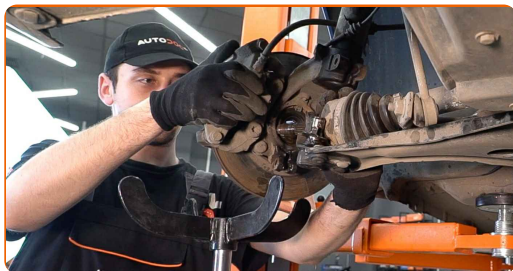


28

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



29 Remove the drive shaft.



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



31 Disconnect the steering knuckle from the shock absorber strut. Use a rubber mallet.

32 Unscrew the top fastening of the shock strut mount.

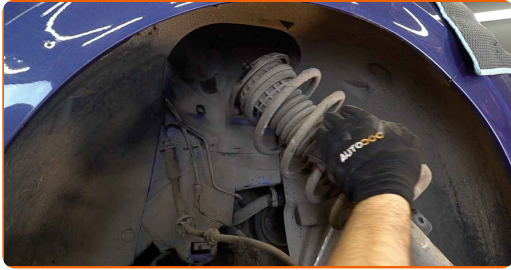


AUTODOC recommends:

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

33

Remove the suspension strut.



34

Set the shock absorber strut on the spring compressor tool.



Replacement: suspension strut – DS DS 3. 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.

35

Compress the spring.



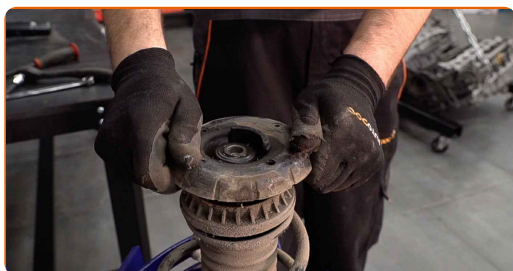
36

Remove the strut piston rod nut. Use a combination spanner #19. Use HEX No.H7. Use a ratchet wrench.



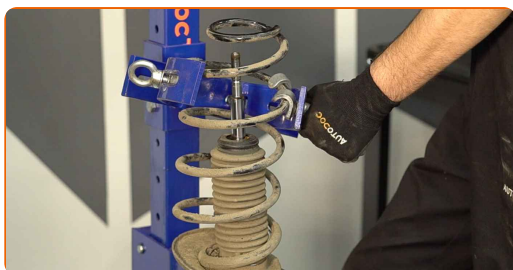
37

Remove the top strut mount.



38

Release the coil spring.



39

Remove the spring.



40

Remove the shock absorber dust cap and the bump stop.



41

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



AUTODOC recommends:

- Replacement: suspension strut – DS DS 3. 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.

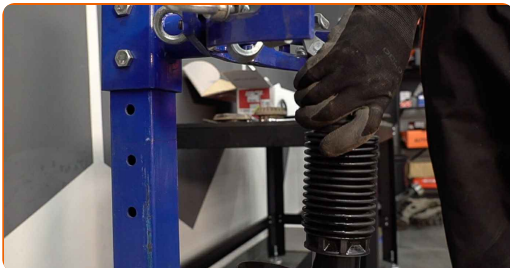
42

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



43

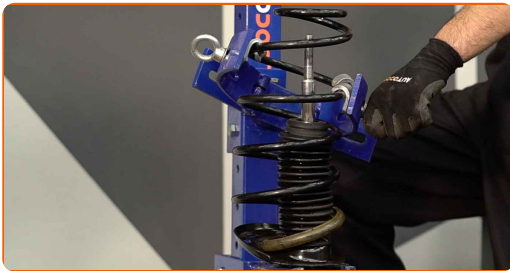
Install the dust sleeve and the bump stop on the new shock absorber.



44 Install the spring on the shock absorber.



45 Compress the spring.



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



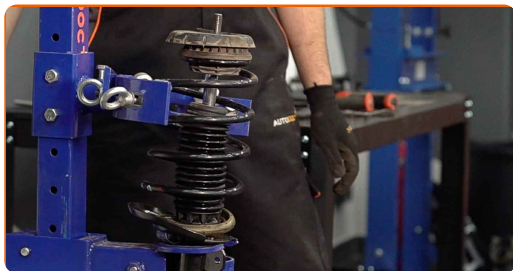
47 Tighten the shock strut piston rod nut. Use a combination spanner #19. Use HEX No.H7. Use a torque wrench. Tighten it to 60 Nm torque.



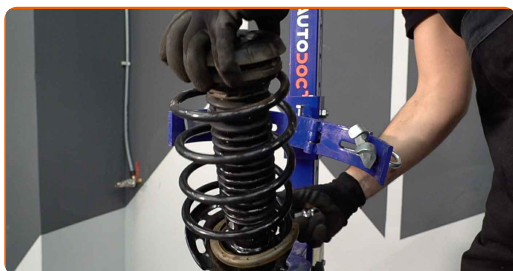
Replacement: suspension strut – DS DS 3. Professionals recommend:

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

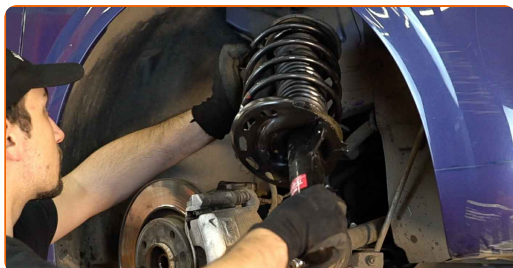
48 Decompress the spring.



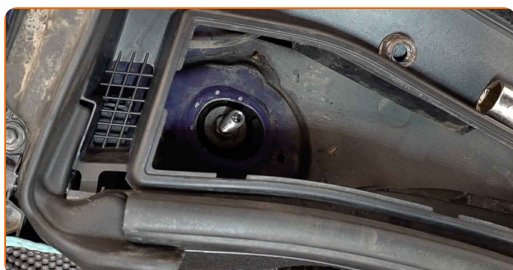
49 Remove the assembled shock strut.



50 Install the shock strut into the wheel arch.



51 Screw the top fastening of the shock strut mount. Do not tighten it.

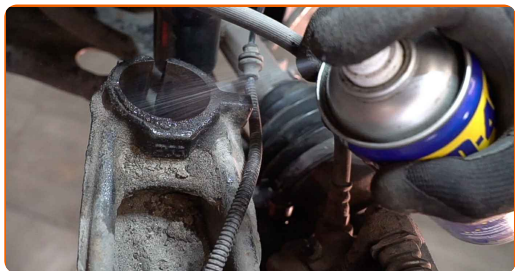


AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. DS DS 3

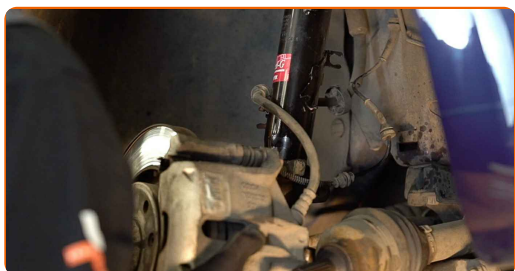
52

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



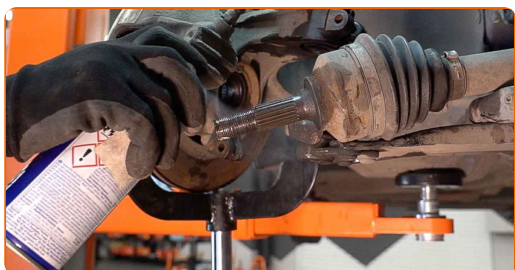
53

Fix the shock absorber strut on the steering knuckle.



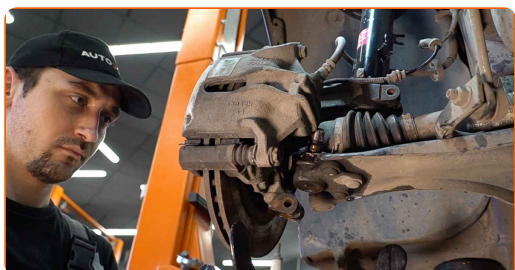
54

Clean the splines of the drive shaft CV joint. Use a wire brush. Use WD-40 spray.



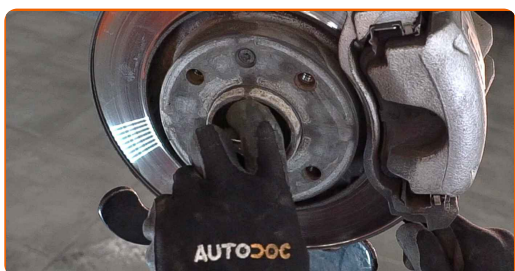
55

Mount the drive shaft into the wheel hub.

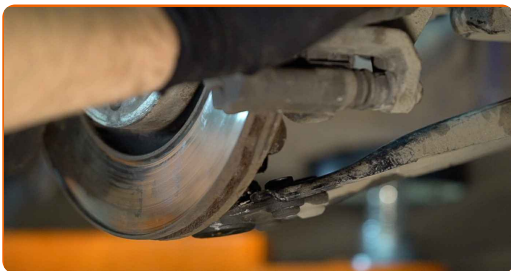


56

Screw the nut of the drive shaft.



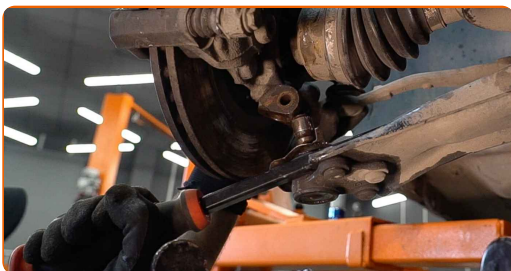
57 Remove the support from under the steering knuckle.



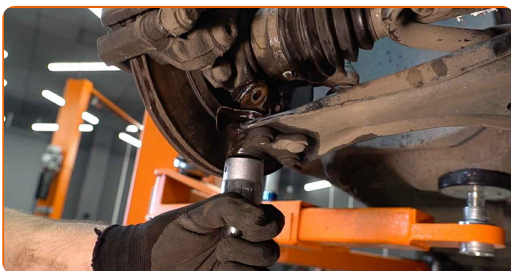
Replacement: suspension strut – DS DS 3. Tip from AUTODOC experts:

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

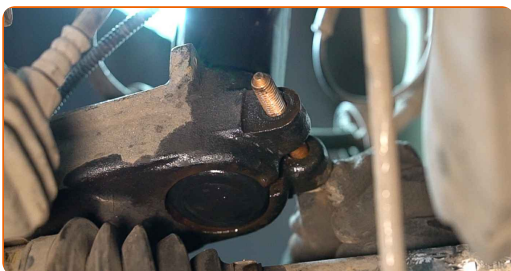
58 Connect the ball joint to the steering knuckle. Use a crowbar.



59 Support the arm. Use a hydraulic transmission jack.



60 Install the fastening bolt.



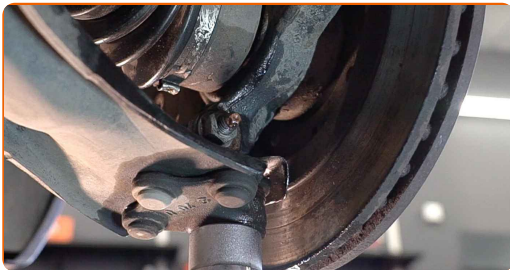
61

Install and tighten a new bolt of the steering knuckle.



62

Screw the fastener connecting the ball joint to the steering knuckle. Use a drive socket #16. Use a drive socket #18. Use a ratchet wrench.



63

Screw in the fastener that connects the shock strut to the steering knuckle. Use a drive socket #18.



64

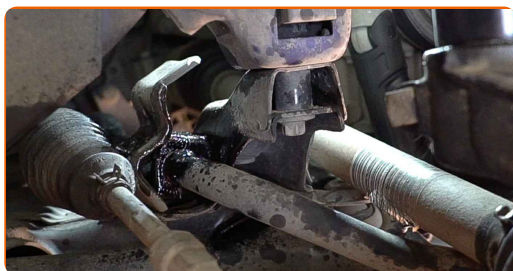
Remove the support from under the arm.



AUTODOC recommends:

- DS DS 3 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

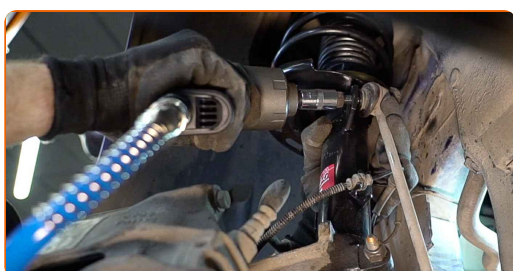
65 Clean the mounting seats of the stabilizer bushes. Use WD-40 spray.



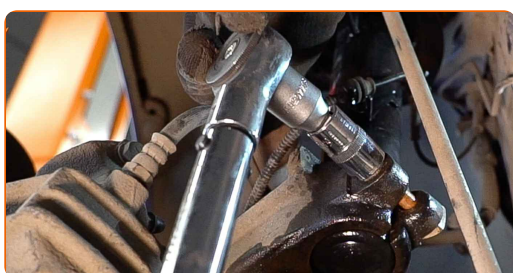
66 Screw the fasteners of the stabilizer bush brackets. Use a drive socket #18. Use a ratchet wrench.



67 Install the transverse stabilizer link. Use a drive socket #16.



68 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 55 Nm torque.



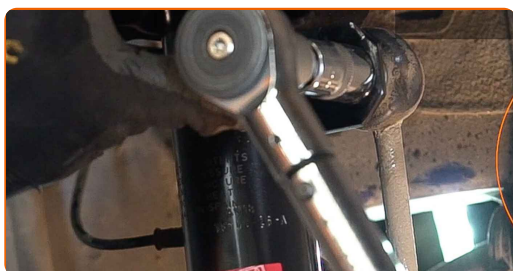
69

Tighten the ball joint fastener. Use a drive socket #16. Use a torque wrench. Tighten it to 40 Nm torque.



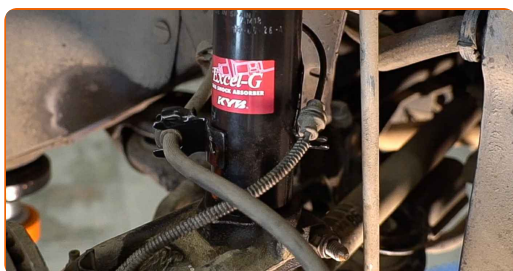
70

Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #16. Use a torque wrench. Tighten it to 43 Nm torque.



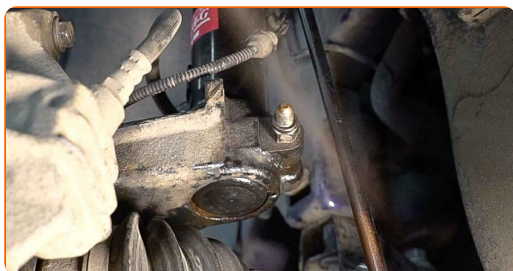
71

Fasten the brake hose on the strut. Connect the fastener of the ABS sensor cable to the shock absorber strut.



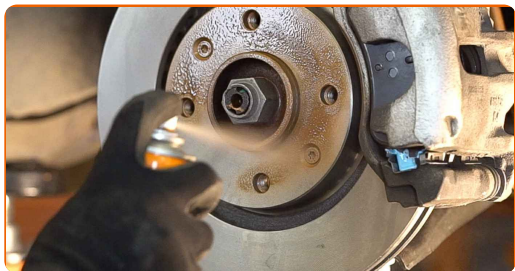
72

Treat the shock strut fasteners. Use copper grease.



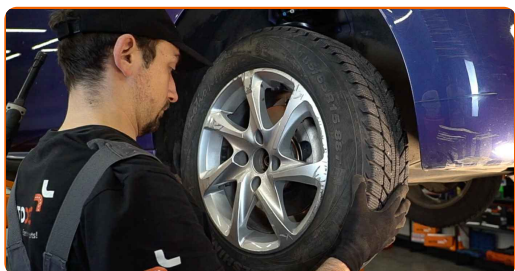
73

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



74

Install the wheel.

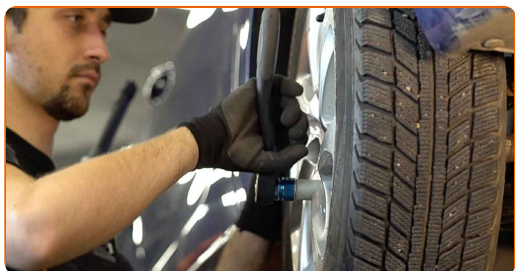


AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. DS DS 3

75

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



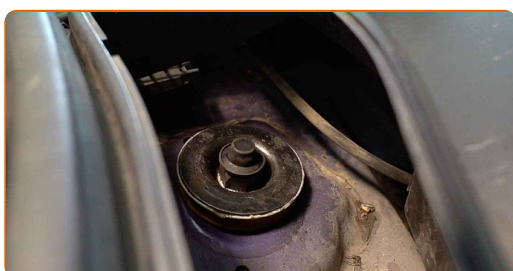
76

Lower the car.

- 77 Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #21. Use HEX No.H7. Use a torque wrench. Tighten it to 60 Nm torque.



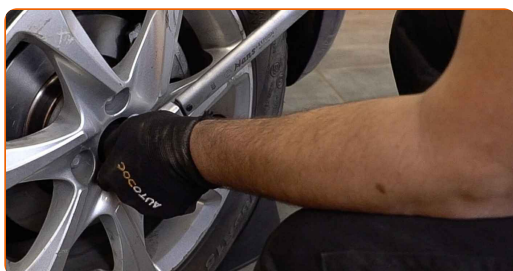
- 78 Install the shock strut mount cap.



- 79 Install and secure the wiper cowl grille located on the right side.



- 80 Tighten the drive shaft nut. Use a drive socket #32. Use a torque wrench. Tighten it to 245 Nm torque.



81

Tighten the wheel bolts using a criss-cross pattern. Use a torque wrench. Tighten it to 100 Nm torque.

**82**

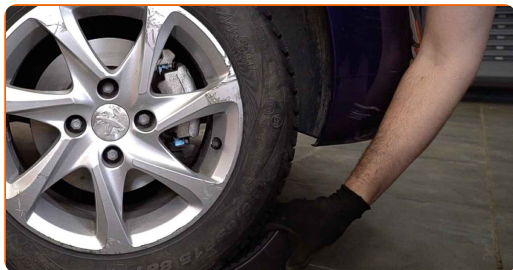
Remove the fender protection cover.

83

Close the hood.

84

Remove the jacks and chocks.



WELL DONE! 

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