



How to change front
suspension strut on
VOLVO S80 II (124) –
replacement guide

SIMILAR VIDEO TUTORIAL



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

i Important!

This replacement procedure can be used for:

VOLVO S80 II (124) 1.6 T4, VOLVO S80 II (124) 2.0 T5, VOLVO S80 II (124) 3.0 T6 AWD, VOLVO S80 II (124) 2.0 D3 / D4, VOLVO S80 II (124) 3.2 AWD, VOLVO S80 II (124) 3.2, VOLVO S80 II (124) 1.6 DRIVe, VOLVO S80 II (124) 2.4 D5 AWD, VOLVO S80 II (124) 2.4 D5, VOLVO S80 II (124) 1.6 T4F, VOLVO S80 II (124) 4.4 V8 AWD, VOLVO S80 II (124) 2.5 T, VOLVO S80 II (124) 2.4 D, VOLVO S80 II (124) 2.5 T AWD, VOLVO S80 II (124) 2.5 T FlexFuel, (+ 8)

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: VOLVO V70 III (135) 2.0 FlexiFuel

**REPLACEMENT: SUSPENSION STRUT – VOLVO S80 II
(124). TOOLS YOU'LL NEED:**



- Wire brush
- WD-40 spray
- Brake cleaner
- Ceramic grease
- Copper grease
- Torque wrench
- Combination spanner #21
- Drive socket # 13
- Drive socket # 15
- 18-mm strut nut socket
- Shock absorber socket
- HEX bit no.H6
- Wheel impact socket #19
- Ratchet wrench
- Tap wrench
- Hydraulic strut spring compressor
- Clip removal tool
- Ball joint puller
- Crow bar
- Rubber mallet
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: suspension strut – VOLVO S80 II (124). AUTODOC experts recommend:

- 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.
- Please note: all work on the car – VOLVO S80 II (124) – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

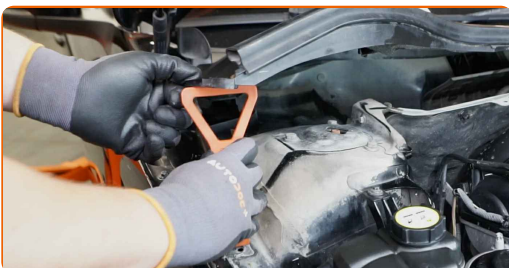
1 Open the bonnet.

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

3 Remove the clips of the plastic cowl grille. Use a clip removal tool.



4 Move the cowl grille aside to access the fasteners of the suspension strut mount.



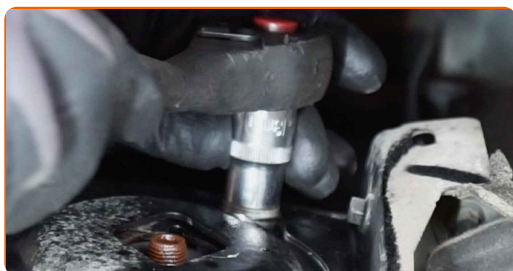
5

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



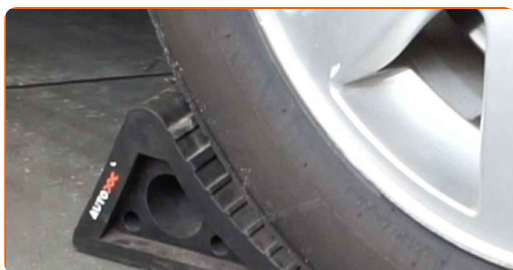
6

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



7

Secure the wheels with chocks.



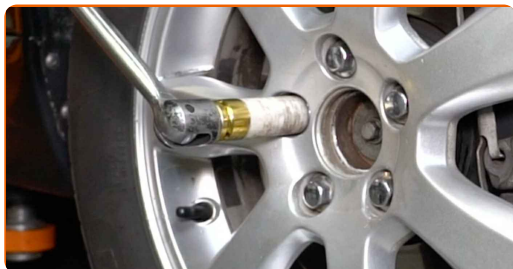
8

Loosen the fastener of the driveshaft. Use a drive socket #13. Use a tap wrench.



9

Loosen the wheel bolts. Use wheel impact socket #19. Use a tap wrench.



10

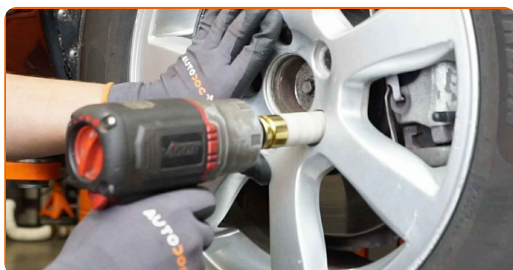
Raise the car.

Replacement: suspension strut – VOLVO S80 II (124). Tip:

- If you are using a jack, make sure it rests on a flat surface without any unevenness.
- Be sure to additionally secure the car with jack stands.

11

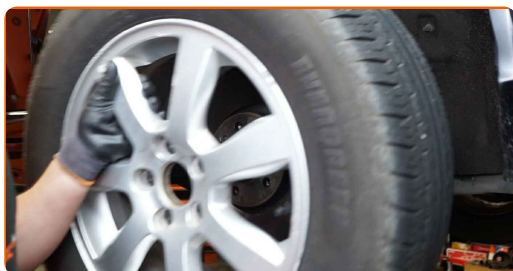
Unscrew the wheel bolts.



AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. VOLVO S80 II (124)

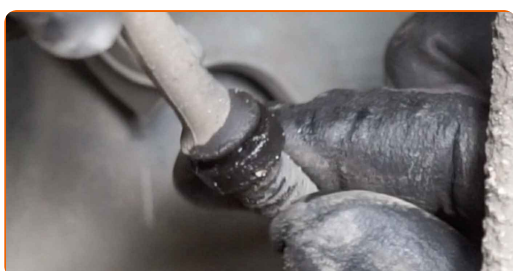
12 Remove the wheel.



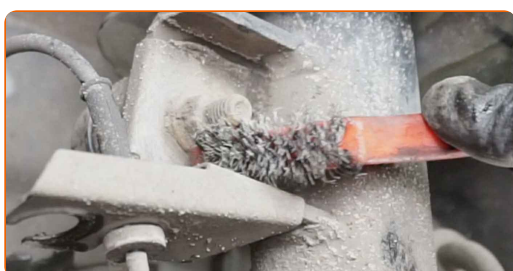
13 Detach the brake hose from the shock strut.



14 Disconnect the ABS sensor wiring.



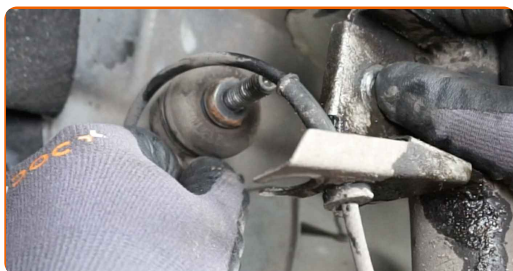
15 Clean the fastener that connects the sway bar link to the suspension strut. Use a wire brush. Use WD-40 spray.



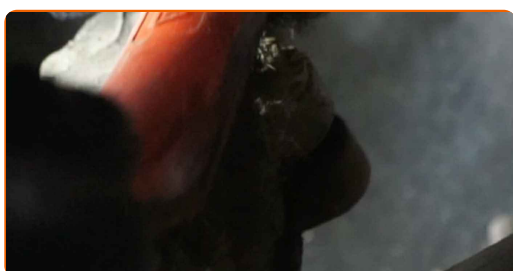
16 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #15. Use a ratchet wrench.



17 Disconnect the sway bar link from the suspension strut.



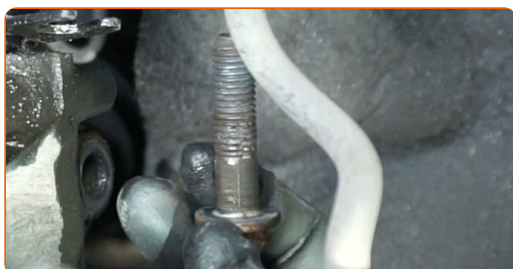
18 Clean the lower fastener connecting the suspension strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



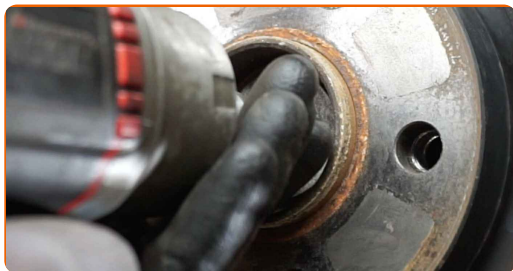
19 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a drive socket #15. Use a ratchet wrench.



20 Remove the fastening bolt.



21 Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #13. Use a ratchet wrench.



22 Remove the fastening bolt.



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



24 Unscrew the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #21.



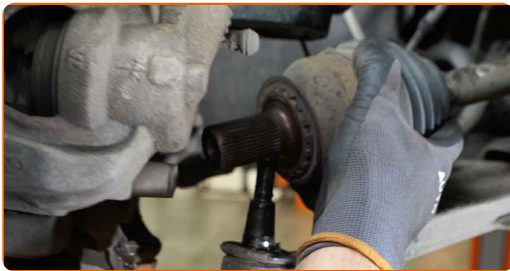
25

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



26

Detach the driveshaft from the steering knuckle.

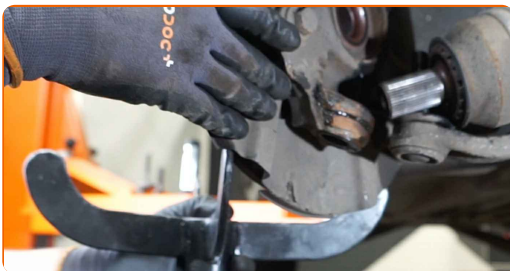


AUTODOC recommends:

- Make sure that the drive shaft is not unloaded (when the car is jacked).

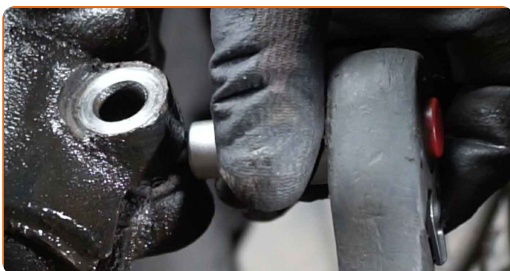
27

Support the steering knuckle. Use a hydraulic transmission jack.



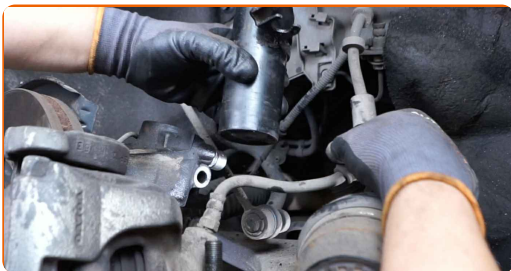
28

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



29

Disconnect the steering knuckle from the suspension strut. Use a rubber mallet.



30

Unscrew the upper fasteners of the shock strut.

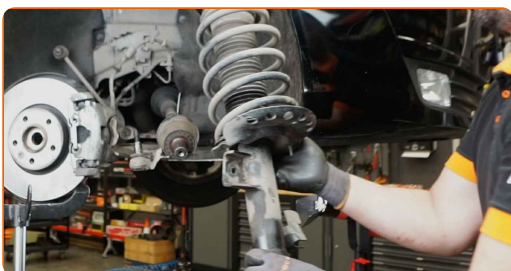


Replacement: suspension strut – VOLVO S80 II (124). AUTODOC recommends:

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

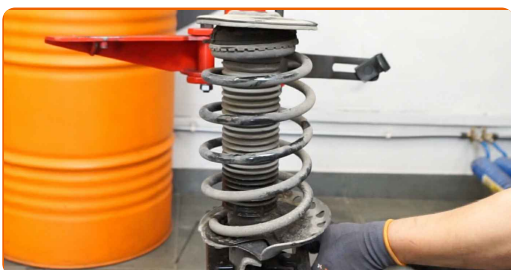
31

Remove the suspension strut.



32

Set the suspension strut on the spring compressor tool.



AUTODOC recommends:

- Note that when using a spring compressor, the spring coils need to be securely gripped, applying pressure on both ends.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils fit tightly into the retainers.

33

Compress the spring.



34

Clean the strut piston rod. Use a wire brush. Use WD-40 spray.

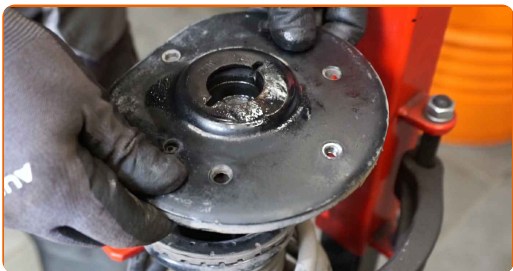


35

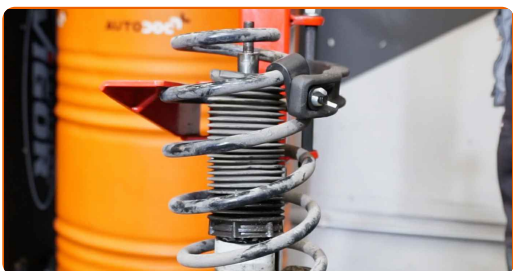
Unscrew the strut piston rod nut. Use a 18-mm strut nut socket. Use HEX No.H6. Use a ratchet wrench.



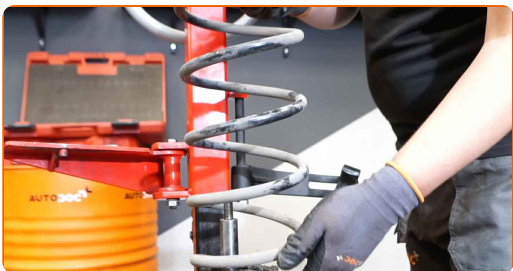
36 Remove the upper strut mount together with the bump stop.



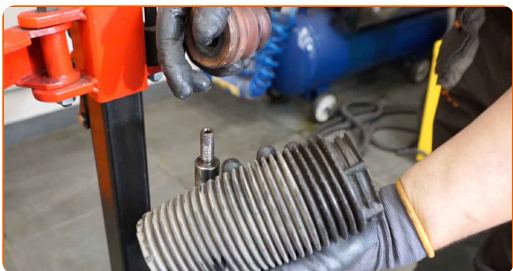
37 Release the coil spring.



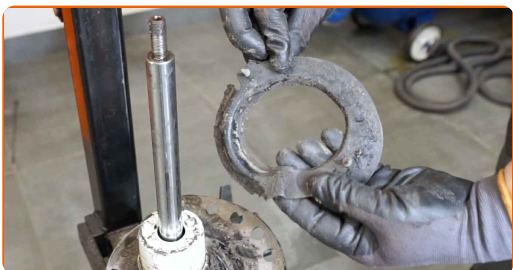
38 Remove the spring.



39 Remove the dust boot.



40 Remove the rubber spring spacer.



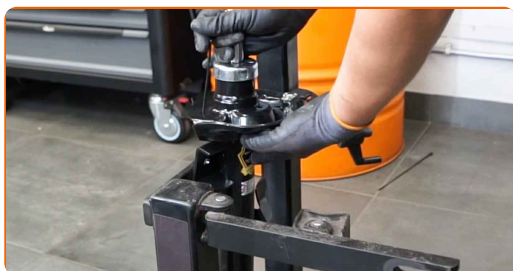
41

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



42

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



Replacement: suspension strut – VOLVO S80 II (124). Professionals recommend:

- Before installing a new shock absorber you should pump it 3–5 times by hand.

43

Install the rubber spring spacer.



44

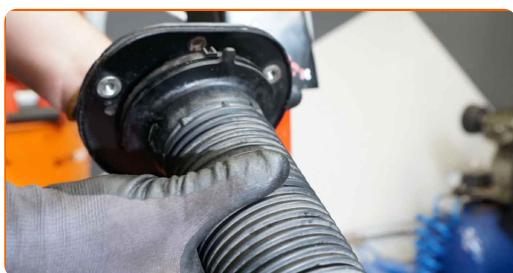
Install the spring on the shock absorber.



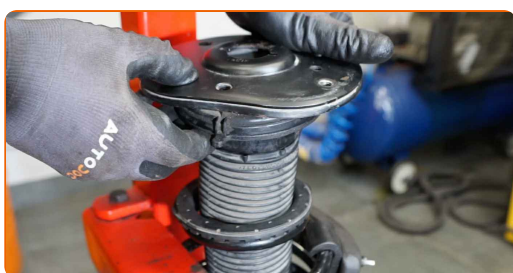
45 Compress the spring.



46 Install the dust boot.



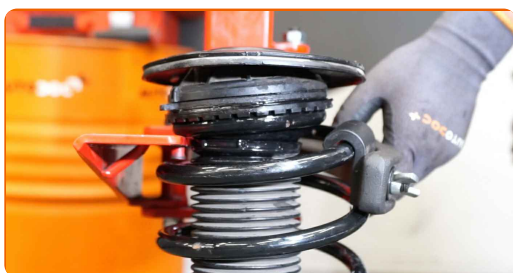
47 Install the upper strut mount together with the bump stop.



48 Tighten the nut of the suspension strut piston rod. Use a 18-mm strut nut socket. Use HEX No.H6. Use a torque wrench. Tighten it to 50 Nm torque.

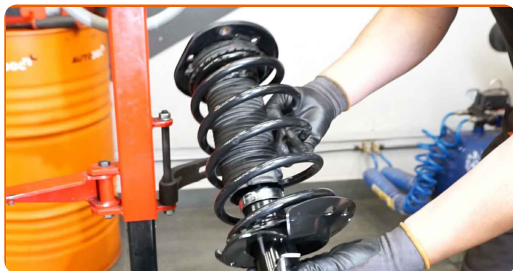


49 Decompress the spring.



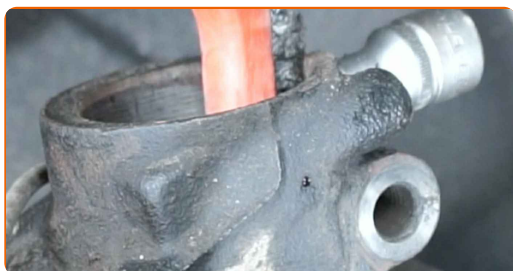
50

Remove the assembled shock strut.



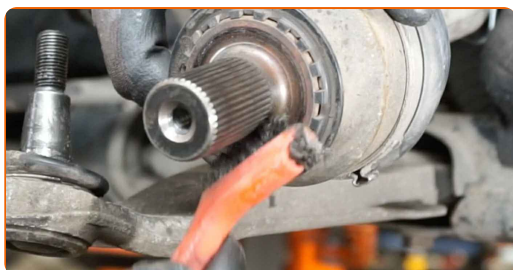
51

Clean the mounting seats of the shock strut. Use a wire brush.



52

Clean the splines of the drive shaft CV joint. Use a wire brush.

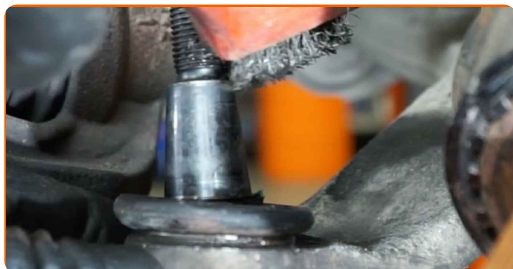


53

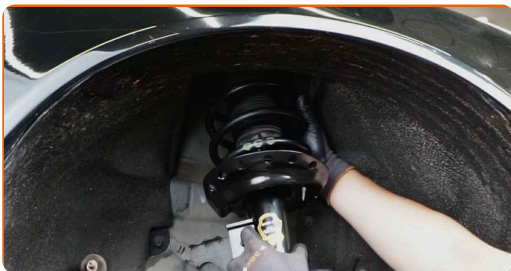
Treat the splines of the driveshaft CV joint. Use copper grease.

54

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



55 Install the suspension strut into the wheel arch.



AUTODOC recommends:

- Make sure that the suspension strut is installed in the correct position, according to the markings.

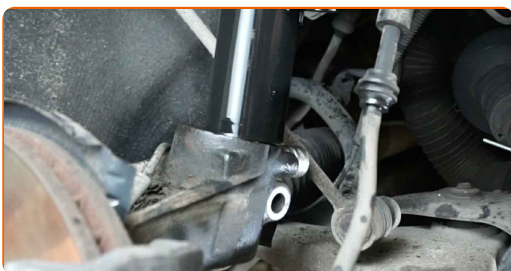
56 Secure the upper fasteners of the shock strut. Do not tighten it.



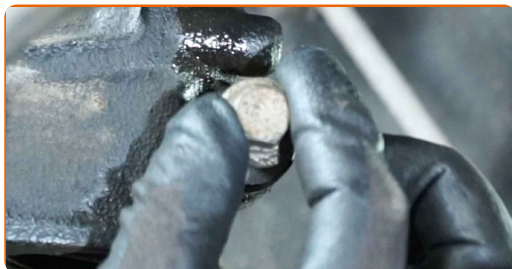
AUTODOC recommends:

- VOLVO S80 II (124) – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

57 Fasten the suspension strut on the steering knuckle.



58 Install the fastening bolt.

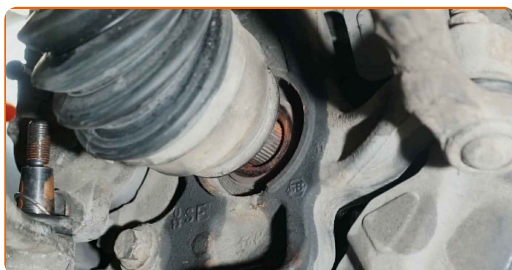


59 Remove the support from under the steering knuckle.

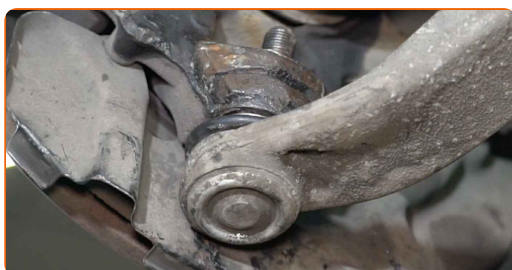
Replacement: suspension strut – VOLVO S80 II (124). Tip:

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

60 Install the drive shaft.

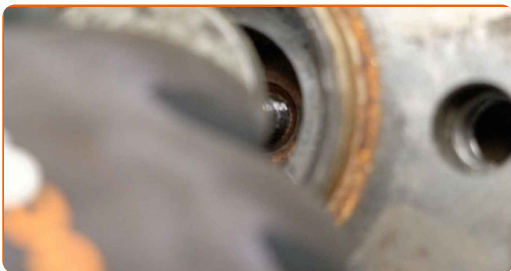


61 Connect the ball joint to the steering knuckle. Use a crowbar.

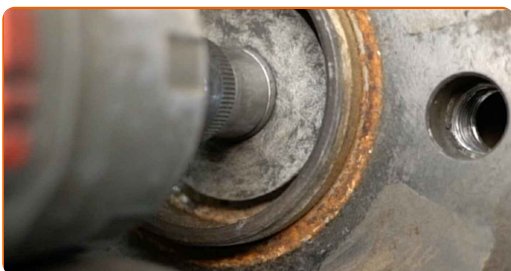


62 Screw the fastener connecting the ball joint to the steering knuckle.

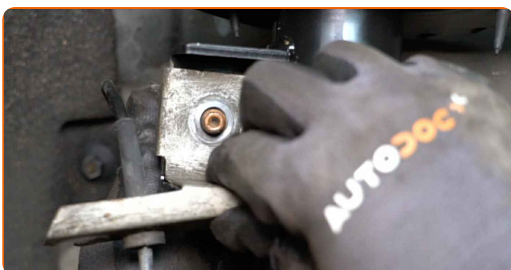
63 Install the fastening bolt.



64 Screw in the fastener of the CV axle. Use a drive socket #13. Use a ratchet wrench.



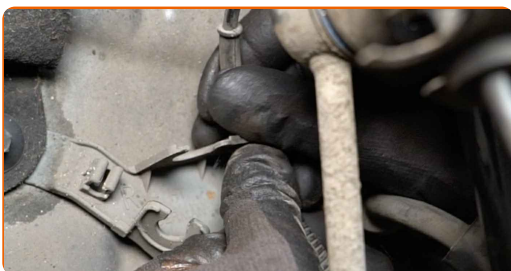
65 Reconnect the sway bar link to the suspension strut.



66 Screw in the fastener connecting the sway bar link to the suspension strut. Use a drive socket #15. Use a ratchet wrench.

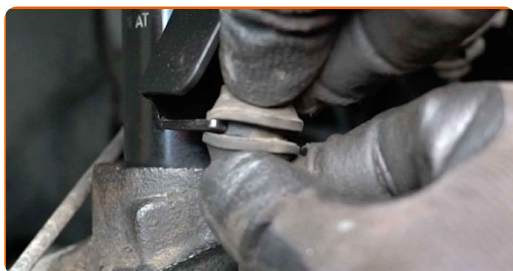


67 Connect the ABS sensor wiring.



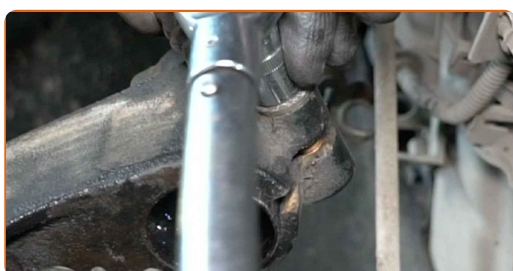
68

Attach the brake hose to the suspension strut.



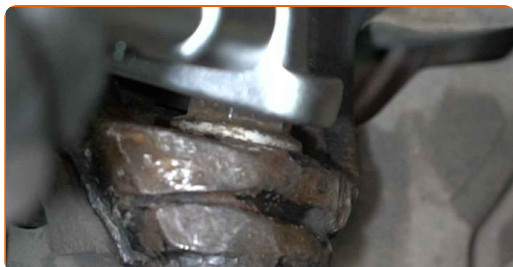
69

Tighten the lower fasteners of the suspension strut. Use a drive socket #15. Use a torque wrench. Tighten it to 110 Nm torque.



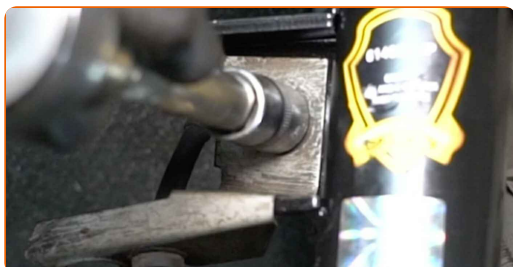
70

Tighten the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #21. Use a torque wrench. Tighten it to 110 Nm torque.



71

Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #15. Use a torque wrench. Tighten it to 55 Nm torque.



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

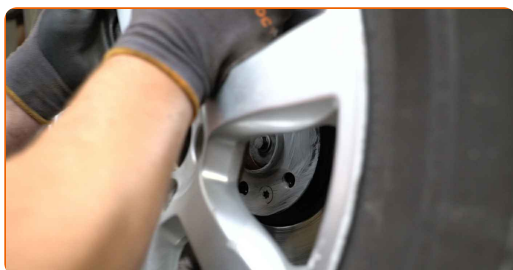


73 Treat the surface where the brake disc contacts the wheel rim. Use ceramic grease.

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



75 Install the wheel.

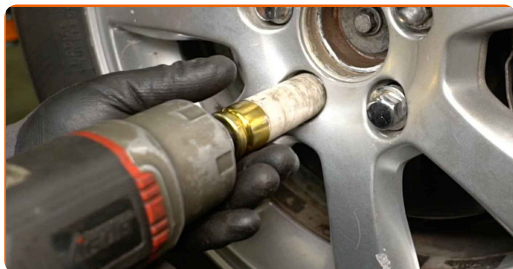


Replacement: suspension strut – VOLVO S80 II (124). Tip from AUTODOC experts:

- To avoid injury, hold up the wheel when screwing in the fastening bolts.

76

Screw in the wheel bolts. Use wheel impact socket #19. Use a ratchet wrench.

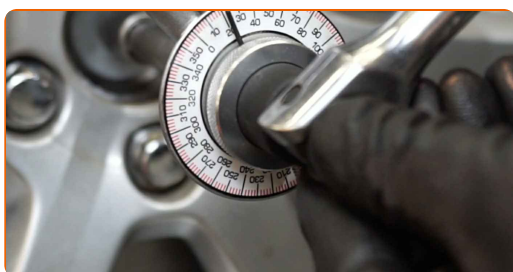


77

Lower the car.

78

Tighten the CV axle fastener. Use a drive socket #13. Use a torque wrench. Tighten it to 35 Nm torque.+90°

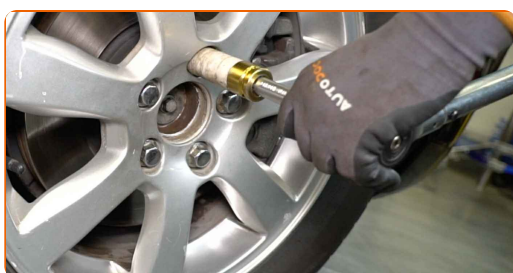


AUTODOC recommends:

- Important! Be sure to use new fasteners.

79

Tighten the wheel bolts using a criss-cross pattern. Use wheel impact socket #19. Use a torque wrench. Tighten it to 140 Nm torque.



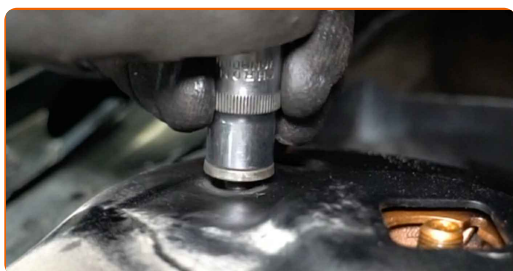
80

Remove the jacks and chocks.



81

Tighten the upper fasteners of the shock strut. Use a drive socket #13. Use a torque wrench. Tighten it to 24 Nm torque.



82

Install and secure the cowl grille.



83

Remove the fender protection cover.

84

Close the bonnet.

WELL DONE! 

VIEW MORE TUTORIALS

AUTODOC – TOP QUALITY AND AFFORDABLE CAR PARTS ONLINE

AUTODOC MOBILE APP: GREAT DEALS AND CONVENIENT SHOPPING



+ AUTODOC

GET IT ON
Google Play

 Download on the
App Store

Download

A GREAT SELECTION OF SPARE PARTS FOR YOUR CAR

SHOCK ABSORBERS: A WIDE SELECTION

DISCLAIMER:

The document contains only general recommendations that may be useful for you when you perform repair or replacement work. AUTODOC shall not be liable for any loss, injury, damage of property occurring in the repair or replacement process due to incorrect use or misinterpretation of the provided information.

AUTODOC shall not be liable for any possible mistakes and uncertainties in this guide. The information provided is for information purposes only and cannot replace advice from specialists.

AUTODOC shall not be liable for incorrect or hazardous usage of equipment, tools and car parts. AUTODOC strongly recommends to be careful and observe the safety rules when performing repair or replacement works. Remember: usage of low quality auto parts does not guarantee you the appropriate level of road safety.

© Copyright 2022 – All the contents of this website, in particular texts, photographs and graphics, are protected by copyright. All rights, including reproduction, publication, editing and translation rights, are reserved by AUTODOC GmbH.