



How to change front  
suspension strut on  
**VOLVO S80 I (184)** –  
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:

VOLVO S80 I (184) 2.9, VOLVO S80 I (184) 2.8 T6, VOLVO S80 I (184) 2.4, VOLVO S80 I (184) 2.0 T, VOLVO S80 I (184) 2.5 TDI, VOLVO S80 I (184) 2.0, VOLVO S80 I (184) 2.4 T, VOLVO S80 I (184) 2.4 D5, VOLVO S80 I (184) 2.4 Bifuel (CNG), VOLVO S80 I (184) 3.0, VOLVO S80 I (184) 3.0 T6, VOLVO S80 I (184) 2.4 D, VOLVO S80 I (184) 2.5 T AWD, VOLVO S80 I (184) 2.5 T, VOLVO S80 I (184) 2.3 R, (+ 2)

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 II (285) 2.0 T

REPLACEMENT: SUSPENSION STRUT – VOLVO S80 I  
(184). TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- Impact socket №13
- Impact socket №18
- Impact socket №21
- HEX bit No.H6.
- Wheel impact socket #19
- Ratchet wrench
- Torque wrench
- Water pump pliers
- Tap wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Wheel chock
- Fender cover

**Buy tools**

Replacement: suspension strut – VOLVO S80 I (184). AUTODOC recommends:

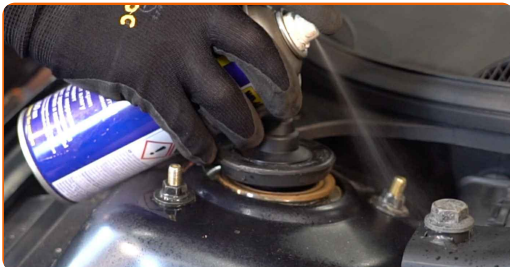
- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- All work should be done with the engine stopped.

**REPLACEMENT: SUSPENSION STRUT – VOLVO S80 I (184).  
RECOMMENDED SEQUENCE OF STEPS:**

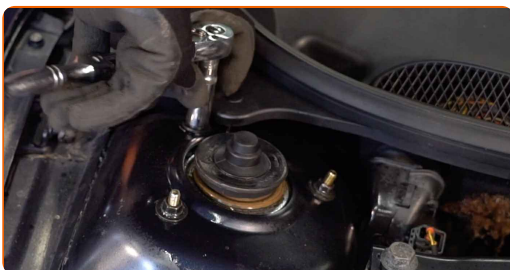
**1** Open the bonnet.

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

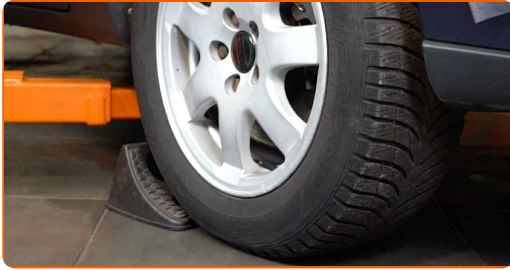
**3** Clean the fasteners of the shock strut upper mount. Use WD-40 spray.



**4** Loosen the upper fastener of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.



**5** Secure the wheels with chocks.

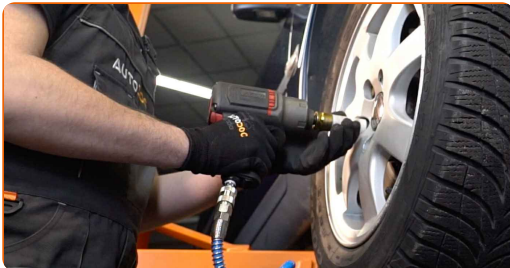


**6** Loosen the wheel mounting bolts. Use wheel impact socket #19.



**7** Raise the front of the car and secure on supports.

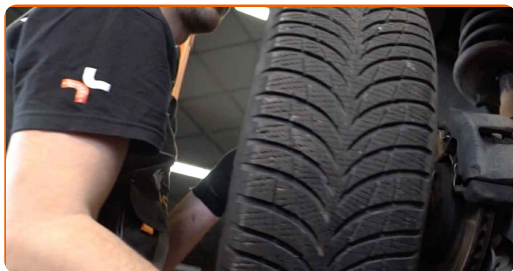
**8** Unscrew the wheel bolts.



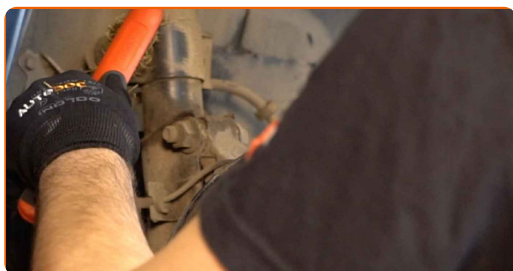
**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.  
VOLVO S80 I (184)

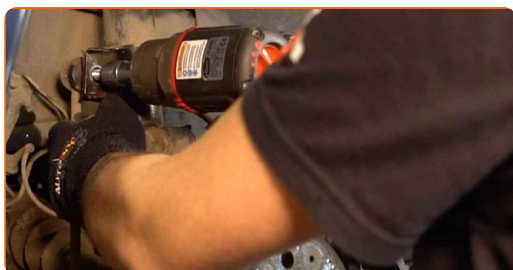
**9** Remove the wheel.



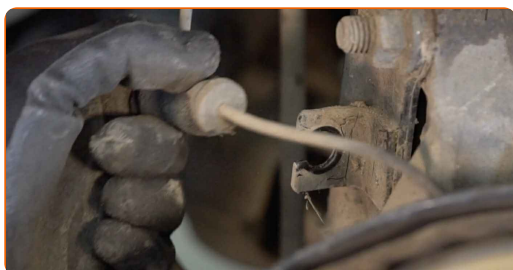
**10** Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



**11** Unscrew the nut and remove the stabilizer rod from the shock strut. Use a drive socket #18. Use a ratchet wrench.



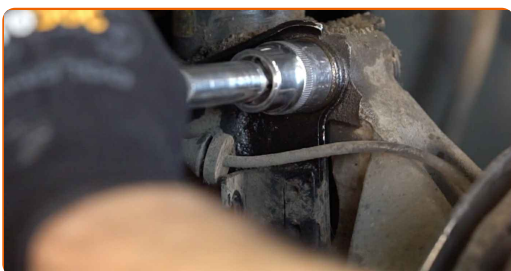
**12** Disconnect the fastener of the ABS sensor cable from the shock absorber strut. Use a crowbar.



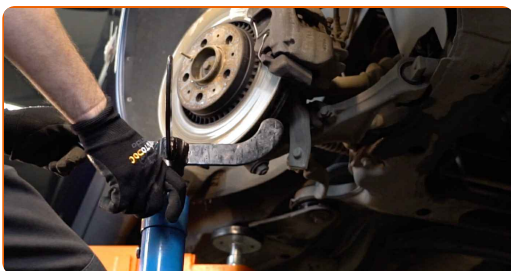
**13** Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



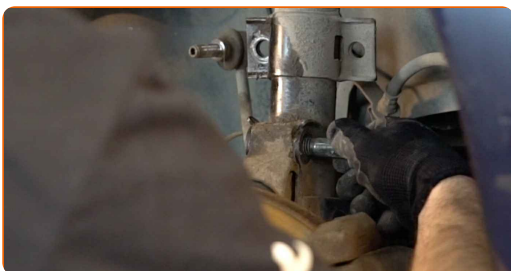
**14** Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #21. Use a ratchet wrench. Use a tap wrench.



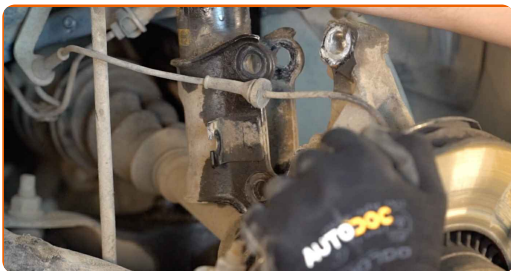
**15** Prop up the steering knuckle. Use a hydraulic transmission jack.



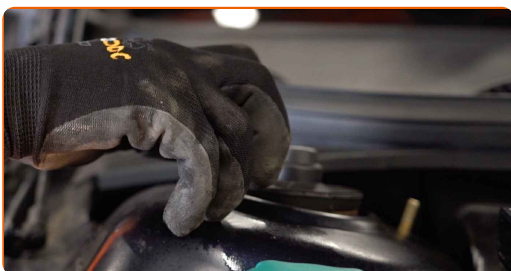
**16** Remove the fastening bolts.



**17** Disconnect the steering knuckle from the shock absorber strut.



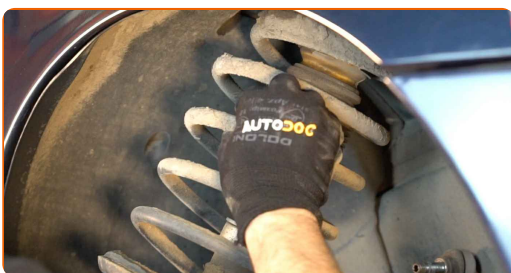
**18** Unscrew the top fastening of the shock strut mount.



**AUTODOC recommends:**

- Important! Hold the suspension strut while unscrewing the fastening bolts.  
VOLVO S80 I (184)

**19** Remove the suspension strut.



**20** Set the shock absorber strut on the spring compressor tool.

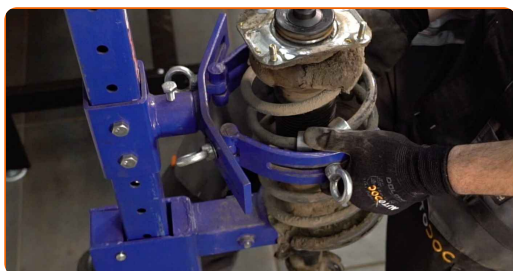




Replacement: suspension strut – VOLVO S80 I (184). AUTODOC experts recommend:

- 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.

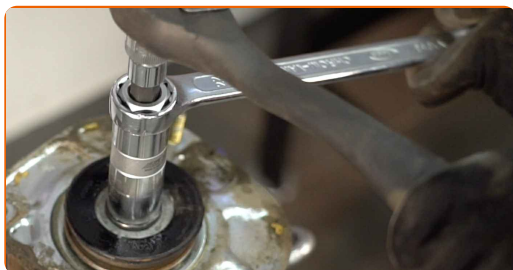
**21** Compress the spring.



**22** Remove the shock strut mount cap. Use a crowbar.



**23** Treat the shock strut rod. Use WD-40 spray.



24

Remove the strut piston rod nut. Use HEX No.H6. Use a drive socket #21. Use a ratchet wrench.



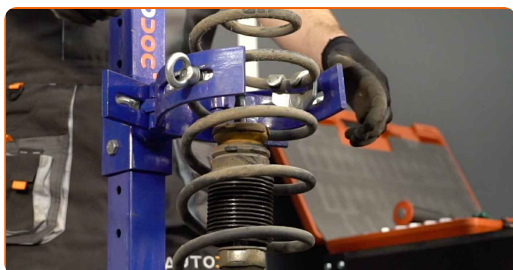
25

Unscrew the fastener of the shock strut mount. Use HEX No.H6. Use a ratchet wrench. Use water pump pliers.



26

Remove the top strut mount.



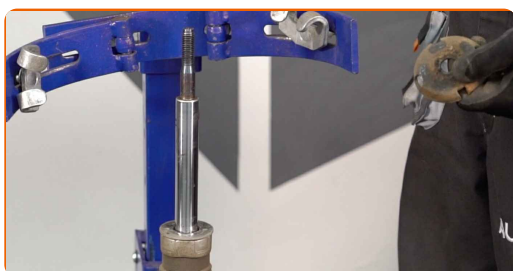
27

Release the coil spring.



28

Remove the spring.



**29**

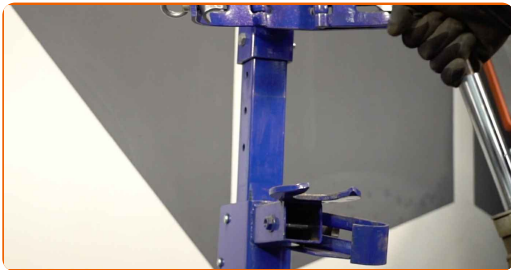
Remove the shock absorber dust cap and the bump stop.

**Replacement: suspension strut – VOLVO S80 I (184). Tip from AUTODOC:**

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

**30**

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



**Replacement: suspension strut – VOLVO S80 I (184). Tip from AUTODOC experts:**

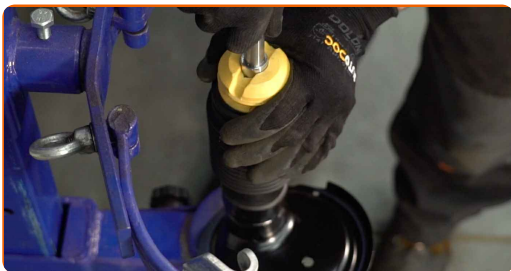
- Before installing a new shock absorber you should pump it manually 3-5 times.

**31**

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



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



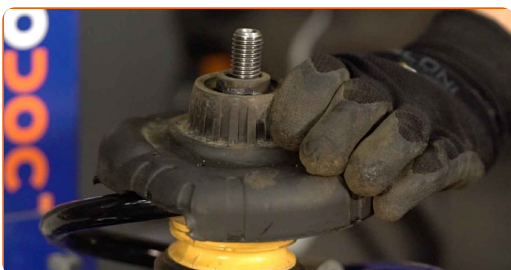
**33** Install the spring on the shock absorber.



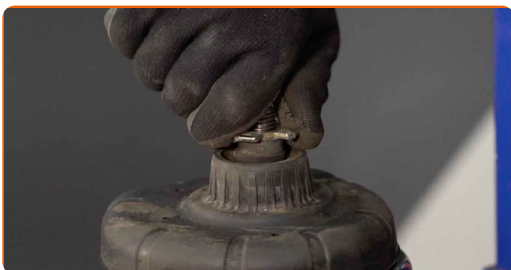
**34** Compress the spring.



**35** Install the upper strut mount and the strut mount bearing.



**36** Screw in the fastener of the shock strut mount. Use HEX No.H6. Use a ratchet wrench. Use water pump pliers.



- 37** Tighten the shock strut piston rod nut. Use HEX No.H6. Use a drive socket #21. Use a torque wrench. Tighten it to 65 Nm torque.



**Replacement: suspension strut – VOLVO S80 I (184). Tip:**

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

- 38** Decompress the spring.



- 39** Remove the assembled shock strut.



- 40** Install the shock strut into the wheel arch.



41

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

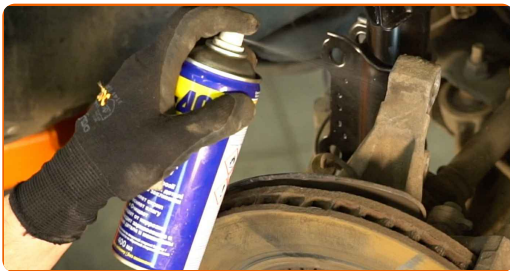


**AUTODOC recommends:**

- Important! Hold the suspension strut while screwing in the fastening bolts.  
VOLVO S80 I (184)

42

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



43

Fix the shock absorber strut on the steering knuckle.

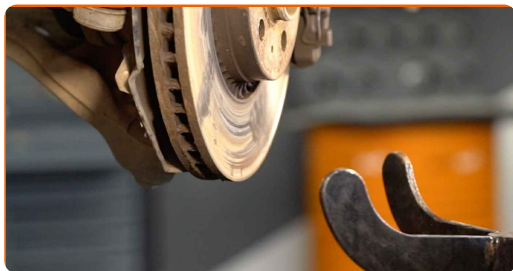


44

Install the fastening bolts. Use a crowbar.



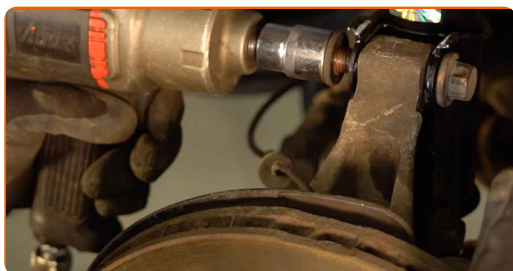
**45** Remove the support from under the steering knuckle.



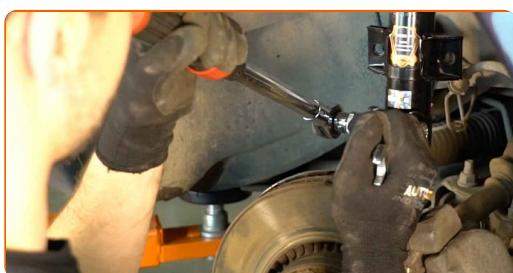
**AUTODOC recommends:**

- Replacement: suspension strut – VOLVO S80 I (184). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

**46** Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #21. Use a ratchet wrench. Use a tap wrench.



**47** Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #21. Use a torque wrench. Tighten it to 105 Nm torque.+60°

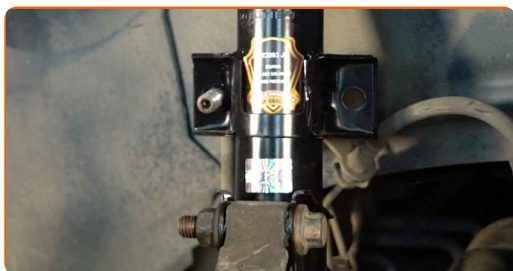


AUTODOC recommends:

- Important! Be sure to use new fasteners.

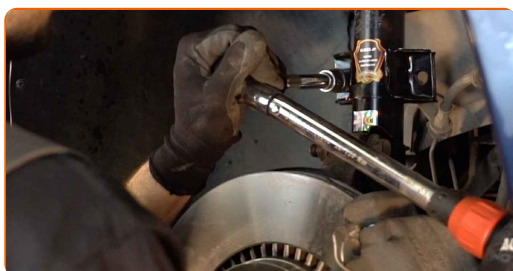
48

Install the transverse stabilizer link.



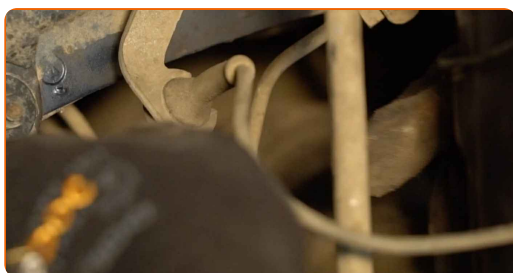
49

Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a torque wrench. Tighten it to 50 Nm torque.



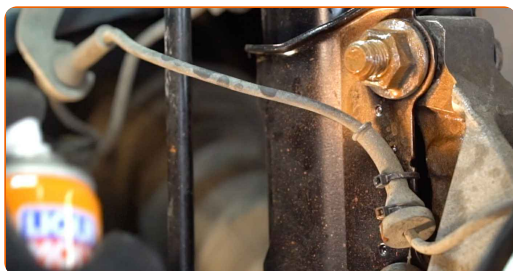
50

Connect the fastener of the ABS sensor cable to the shock absorber strut.



51

Treat the shock strut fasteners. Use copper grease.

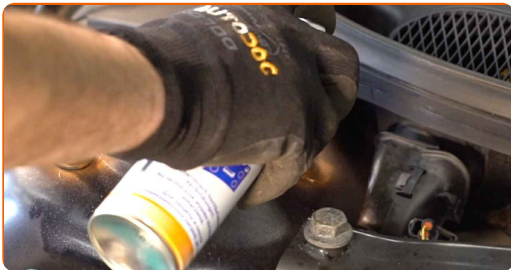




- 52 Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 25 Nm torque.



- 53 Treat the shock strut fasteners. Treat the shock strut rod. Use copper grease.



- 54 Install the shock strut mount cap.

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



- 56 Clean the brake disk surface. Use a brake cleaner.

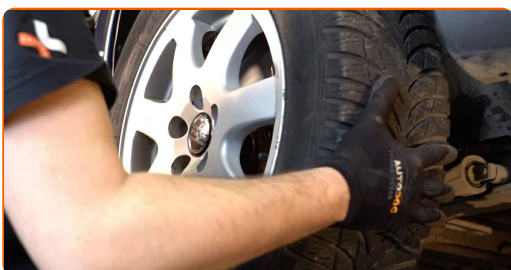


**AUTODOC recommends:**

- Replacement: suspension strut – VOLVO S80 I (184). After applying the spray, wait a few minutes.

**57**

Install the wheel.

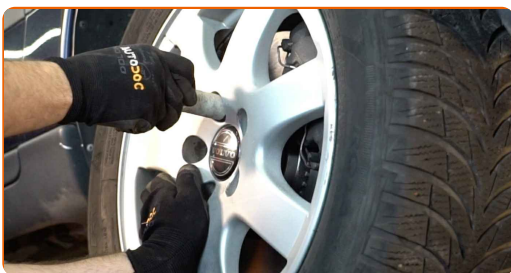


**AUTODOC recommends:**

- Important! Hold the wheel while screwing in the fastening bolts. VOLVO S80 I (184)

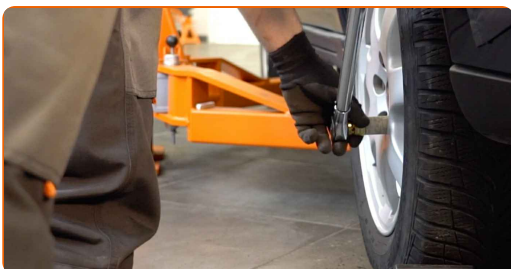
**58**

Screw in the wheel bolts. Use wheel impact socket #19.



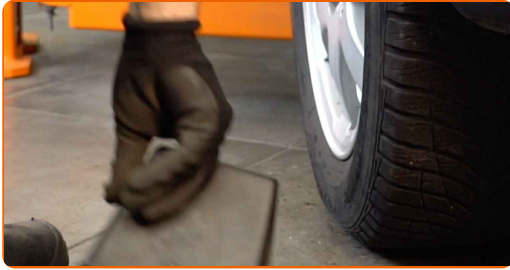
**59**

Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 140 Nm torque.



60

Remove the jacks and chocks.



61

Remove the fender protection cover.

62

Close the hood.

**WELL DONE!** 

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