



How to change front  
suspension strut on  
**Citroen C3 1** –  
replacement guide

## VIDEO TUTORIAL

** Important!**

This replacement procedure can be used for:

CITROËN C3 I Hatchback (FC\_, FN\_) 1.1 i, CITROËN C3 I Hatchback (FC\_, FN\_) 1.4 HDi, CITROËN C3 I Hatchback (FC\_, FN\_) 1.4 i Bivalent, CITROËN C3 I Hatchback (FC\_, FN\_) 1.6 16V, CITROËN C3 I Hatchback (FC\_, FN\_) 1.4 16V HDi, CITROËN C3 Pluriel (HB\_) 1.6, CITROËN C3 Pluriel (HB\_) 1.4, CITROËN C2 Hatchback (JM) 1.1, CITROËN C2 Hatchback (JM) 1.4, CITROËN C2 Hatchback (JM) 1.6, CITROËN C2 Hatchback (JM) 1.4 HDi, CITROËN C3 I Hatchback (FC\_, FN\_) 1.4 16V, CITROËN C3 Pluriel (HB\_) 1.4 HDi, CITROËN C2 Hatchback (JM) 1.6 VTS, CITROËN C3 I Hatchback (FC\_, FN\_) 1.6 16V HDi, (+ 6)

The steps may slightly vary depending on the car design.

**REPLACEMENT: SUSPENSION STRUT – CITROEN C3 1.  
TOOLS YOU NEED:**



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #16
- Combination spanner #17
- Combination spanner #22
- Drive socket # 16
- Drive socket # 17
- Drive socket # 19
- Drive socket # 22
- Drive socket # 30
- HEX bit No.H7.
- Torx bit T30
- Wheel impact socket #17
- Shock absorber socket
- Ratchet wrench
- Torque wrench
- Flat chisel
- Pin punch
- Tap wrench
- Hammer
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

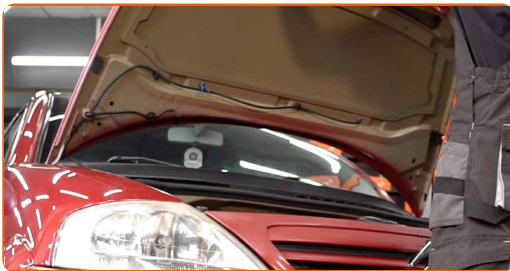
**BUY TOOLS**

**Replacement: suspension strut – Citroen C3 1. Tip:**

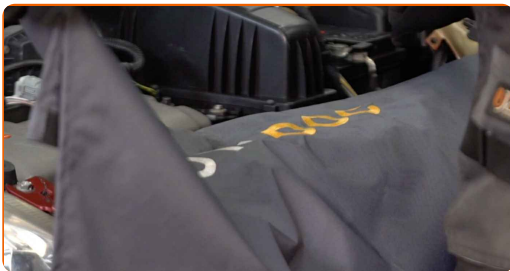
- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- Warning! Shut down the engine before starting any work – Citroen C3 1.

**CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:**

**1** Open the bonnet.



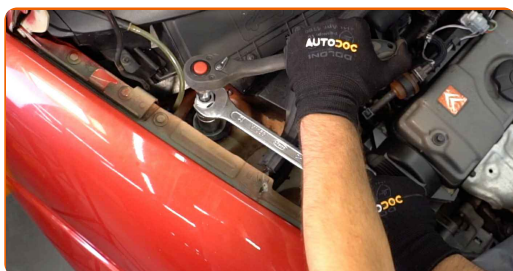
**2** Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



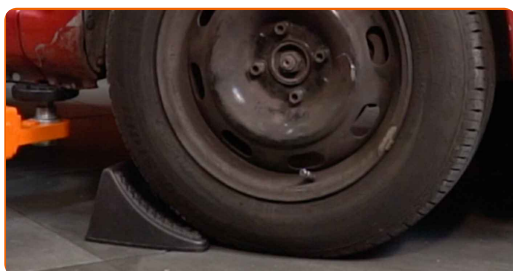
**3** Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.



- 4 Loosen the upper fastener of the shock strut mount. Use HEX No.H7. Use a combination spanner #22. Use a ratchet wrench.



- 5 Secure the wheels with chocks.



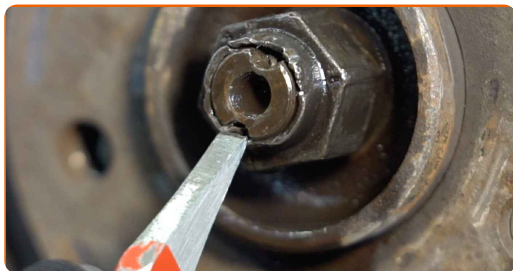
- 6 Loosen the wheel mounting bolts. Use wheel impact socket #17.



- 7 Clean the fastener of the driveshaft. Use a wire brush. Use WD-40 spray.



**8** Unstake the fastener of the driveshaft. Use a flat metal-working chisel. Use a hammer.



**9** Loosen the fastener of the driveshaft. Use a drive socket #30. Use a tap wrench.



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



**11** Unscrew the wheel bolts.



Replacement: suspension strut – Citroen C3 1. AUTODOC experts recommend:

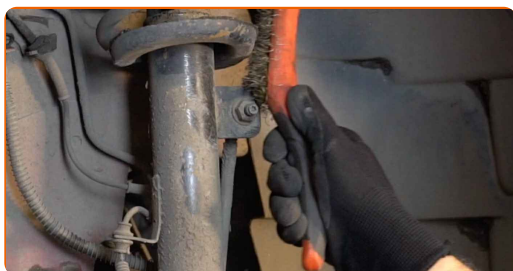
- To avoid injury, hold up the wheel when unscrewing the bolts.



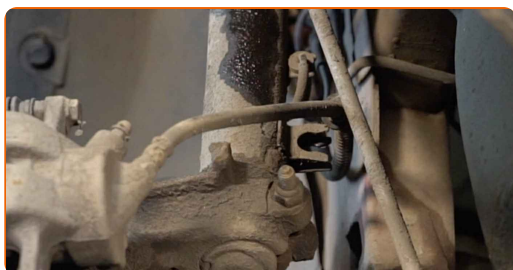
**12** Remove the wheel.



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



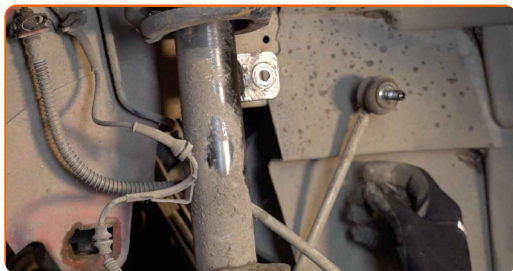
**14** Disconnect the wiring and the brake hose from the bracket on the shock strut. Use a crowbar.



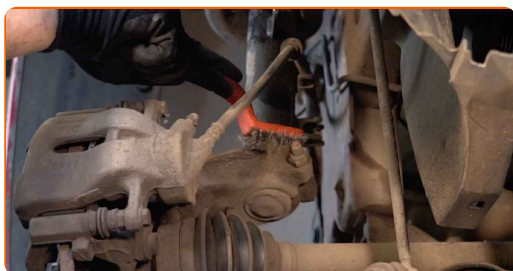
**15** Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #17. Use Torx T30. Use a ratchet wrench.



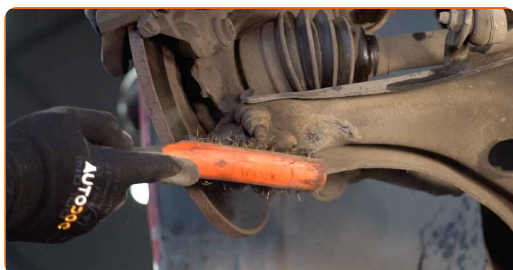
**16** Remove the stabilizer rod.



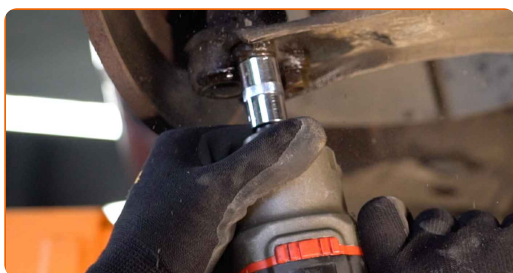
**17** Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



**18** Clean all joints of the arm. Use a wire brush. Use WD-40 spray.

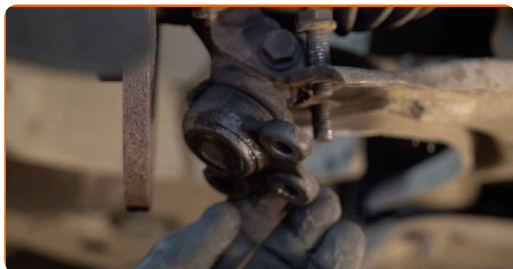


**19** Unscrew the fastener connecting the ball joint to the suspension control arm. Use a drive socket #16. Use a combination spanner #16. Use a tap wrench.

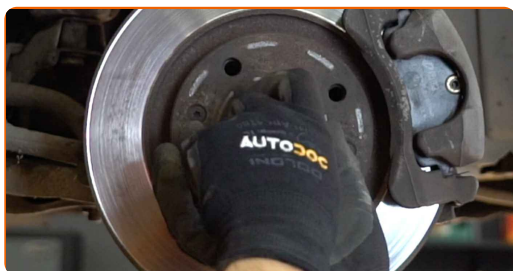




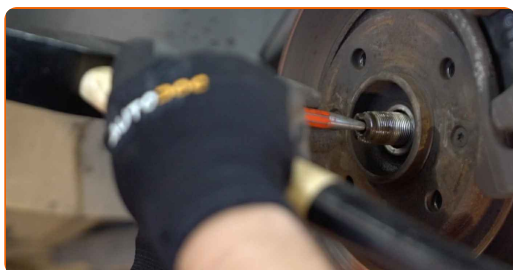
**20** Disconnect the spherical joint from the arm.



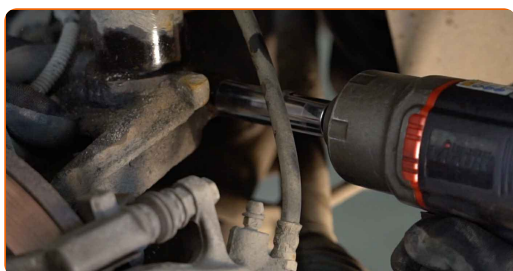
**21** Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #30.



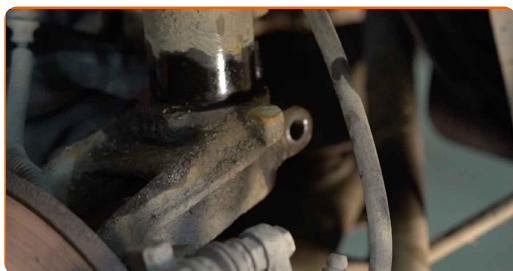
**22** Remove the drive shaft. Use a pin punch. Use a hammer.



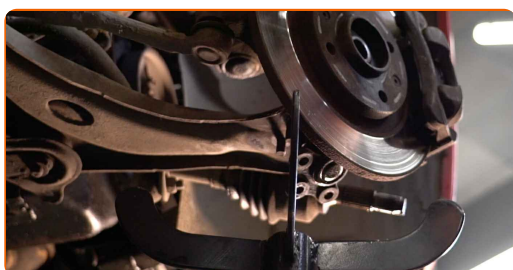
**23** Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a drive socket #16. Use a tap wrench.



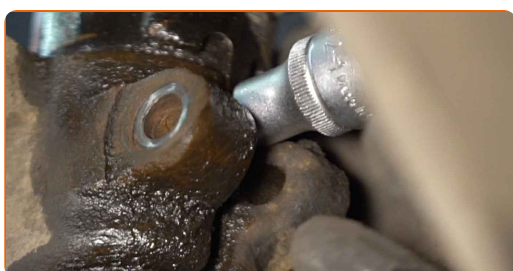
**24** Remove the fastening bolt.



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



**26** 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.



**27** Disconnect the steering knuckle from the shock absorber strut. Use a hammer.



**28** Unscrew the top fastening of the shock strut mount. Use a drive socket #22.



Replacement: suspension strut – Citroen C3 1. Tip from AUTODOC:

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

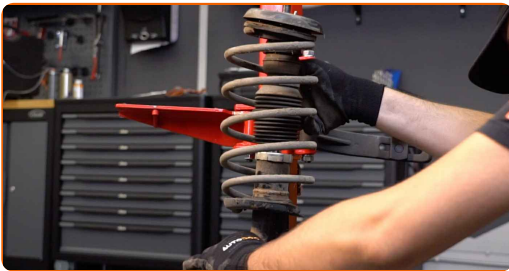
29

Remove the suspension strut.



30

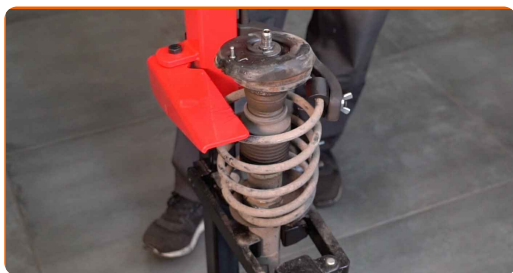
Set the shock absorber strut on the spring compressor tool.



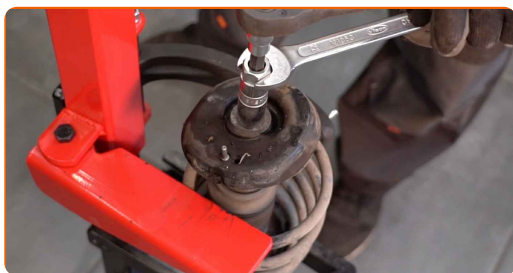
Replacement: suspension strut – Citroen C3 1. Tip from AUTODOC experts:

- 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.

**31** Compress the spring.



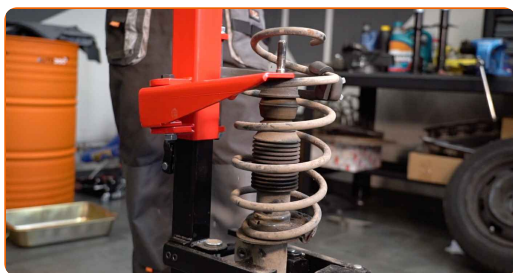
**32** Remove the strut piston rod nut. Use a drive socket #19. Use HEX No.H7. Use a ratchet wrench.



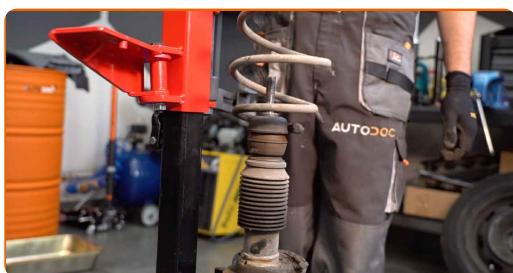
**33** Remove the top strut mount.



**34** Release the coil spring.



**35** Remove the spring.



**AUTODOC recommends:**

- Replacement: suspension strut – Citroen C3 1. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

**36**

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



**Replacement: suspension strut – Citroen C3 1. Tip from AUTODOC:**

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

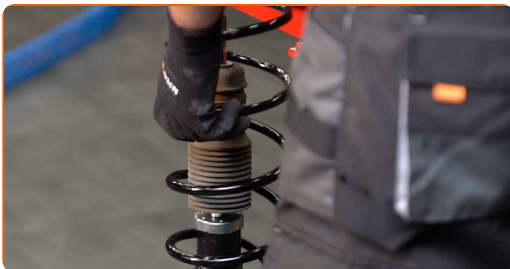
**37**

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

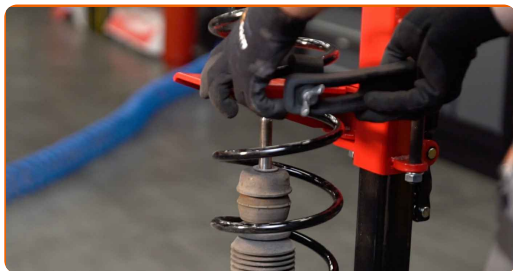


**38**

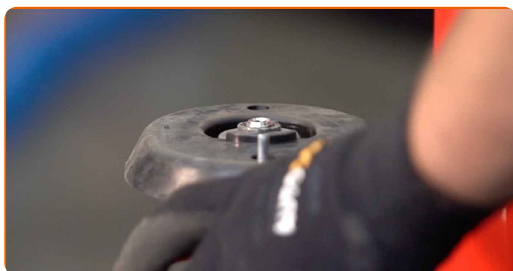
Install the spring on the shock absorber.



**39** Compress the spring.



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



**41** Tighten the shock strut piston rod nut. Use HEX No.H7. Use a drive socket #19. Use a torque wrench. Tighten it to 60 Nm torque.

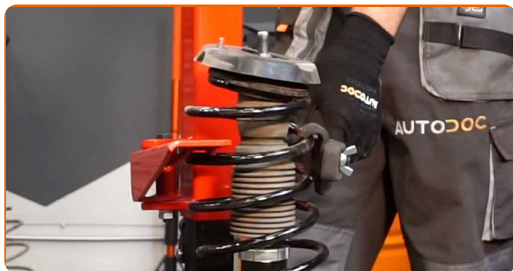


Replacement: suspension strut – Citroen C3 1. Professionals recommend:

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



**42** Decompress the spring.



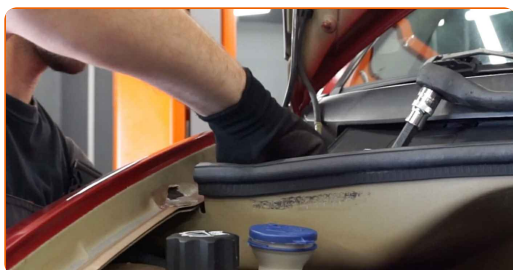
**43** Remove the assembled shock strut.



**44** Install the shock strut into the wheel arch.



**45** Important! Hold the wheel while screwing in the fastening bolts. Citroen C3 1 Do not tighten it.



**AUTODOC recommends:**

- Important! Hold the suspension strut while screwing in the fastening bolts.  
Citroen C3 1

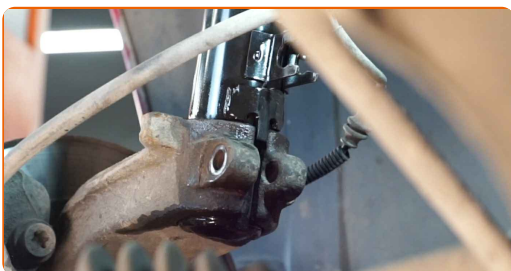
46

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



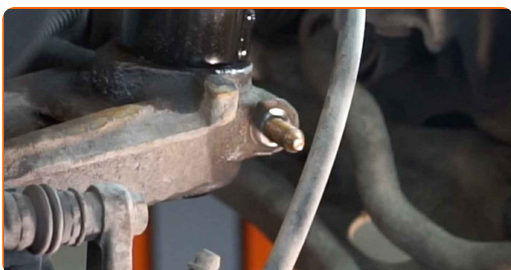
47

Fix the shock absorber strut on the steering knuckle.



48

Install the fastening bolt.



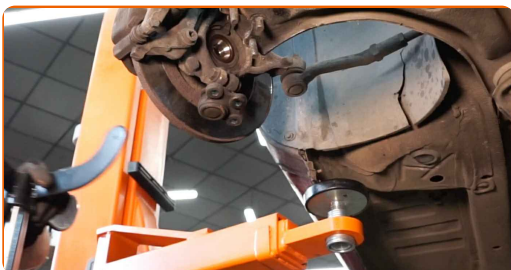
49

Screw in the fastener that connects the shock strut to the steering knuckle. Use a drive socket #16.



50

Remove the support from under the steering knuckle.

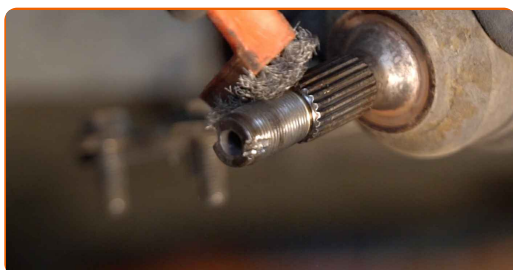


**AUTODOC recommends:**

- Replacement: suspension strut – Citroen C3 1. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

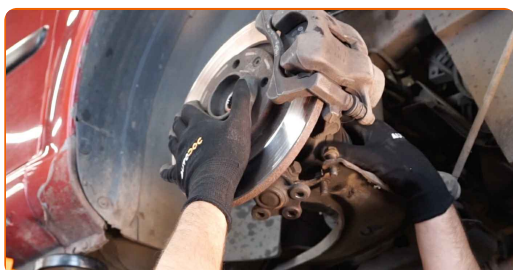
**51**

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



**52**

Install the drive shaft.



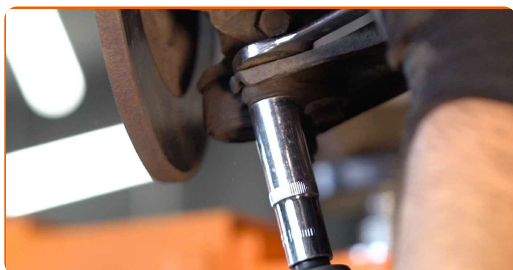
**53**

Attach the ball joint to the control arm.



**54**

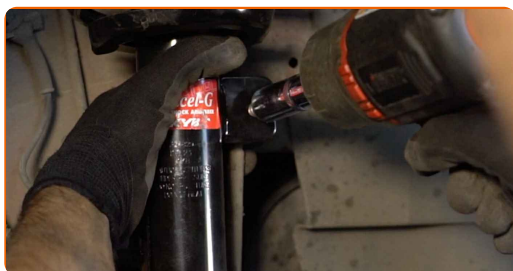
Screw the fasteners of the ball joint. Use a drive socket #16.



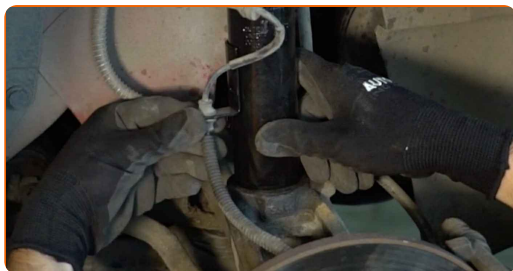
**55** Install the transverse stabilizer link.



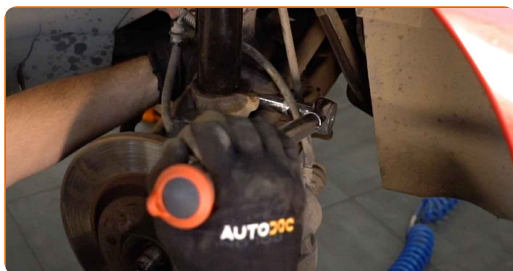
**56** Tighten the stabiliser link fastener. Use a drive socket #17.



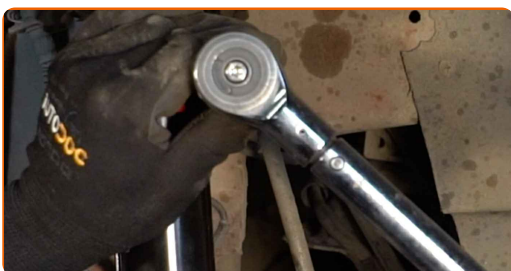
**57** Fasten the brake hose on the strut. Connect the fastener of the ABS sensor cable to the shock absorber strut.



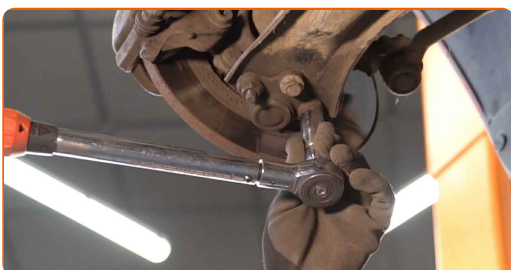
**58** Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #16. Use a torque wrench. Tighten it to 59 Nm torque.



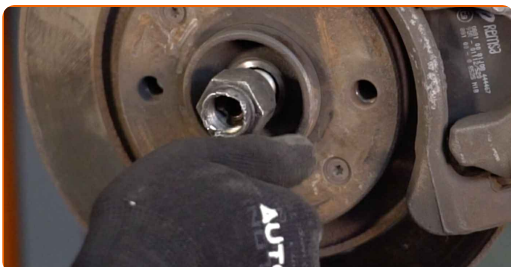
- 59 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #17. Use a torque wrench. Tighten it to 35 Nm torque.



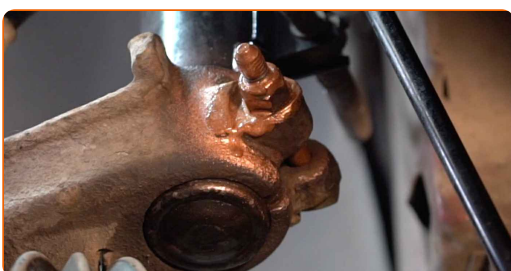
- 60 Tighten the ball joint fastener. Use a drive socket #16. Use a combination spanner #16. Use a torque wrench. Tighten it to 52 Nm torque.



- 61 Screw the nut of the drive shaft. Use a drive socket #30.

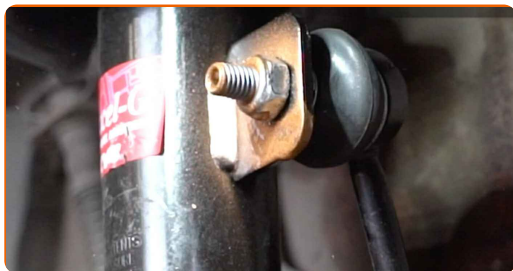


- 62 Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.





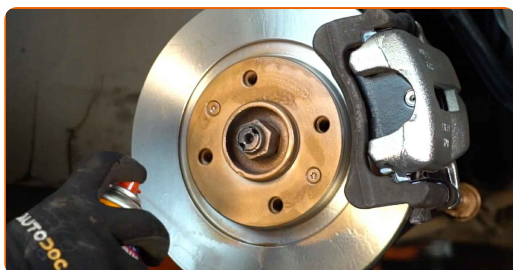
**63** Treat all joints of the stabiliser link. Use copper grease.



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



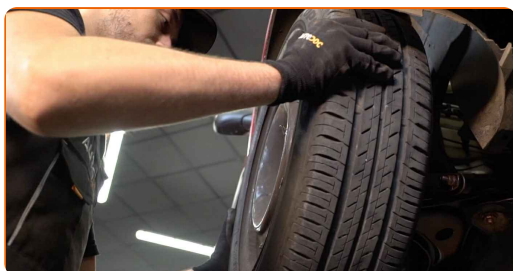
**65** Clean the brake disk surface. Use a brake cleaner.



**Replacement: suspension strut – Citroen C3 1. Tip from AUTODOC:**

- After applying the spray, wait a few minutes.

**66** Install the wheel.





AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. Citroen C3 1

67

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



68

Lower the car.



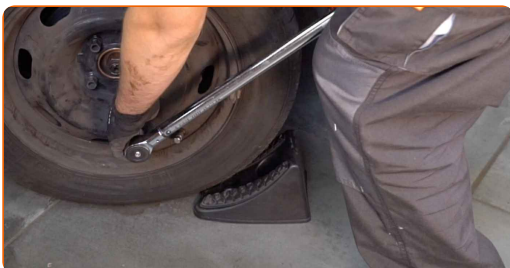
69

Tighten the drive shaft nut. Use a drive socket #30. Use a torque wrench. Tighten it to 245 Nm torque.

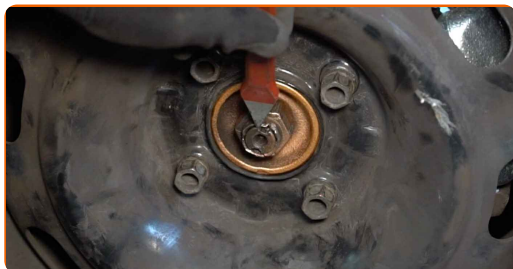


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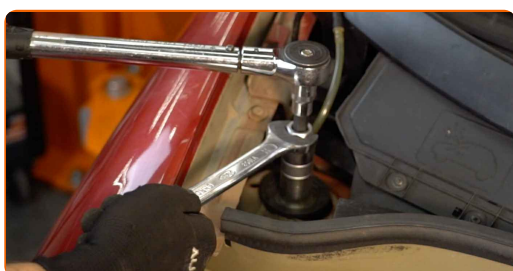
Tighten the wheel bolts using a criss-cross pattern. Use a torque wrench. Tighten it to 90 Nm torque.



**71** Restake the fastener of the driveshaft. Use a flat metal-working chisel. Use a hammer.



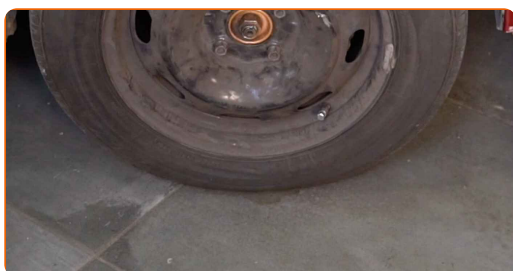
**72** Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #22. Use HEX No.H7. Use a torque wrench. Tighten it to 60 nm torque.



**73** Treat the shock strut fasteners. Use copper grease.



**74** Remove the jacks and chocks.



75

Remove the fender protection cover.



76

Close the hood.



**WELL DONE!** 

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