



How to change front coil  
springs on **AUDI A6**  
**Avant (4B5, C5)** –  
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:

AUDI A6 Avant (4B5, C5) 2.5 TDI, AUDI A6 Avant (4B5, C5) 2.5 TDI quattro

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: VW PASSAT Variant (3B6) 1.9 TDI

**REPLACEMENT: COIL SPRINGS – AUDI A6 AVANT (4B5, C5). TOOLS YOU NEED:**



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #16
- Combination spanner #18
- Drive socket # 13
- Drive socket # 15
- Drive socket # 16
- Drive socket # 18
- HEX bit no.H6.
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Pin punch
- Hammer
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

**Buy tools**

Replacement: coil springs – AUDI A6 Avant (4B5, C5). AUTODOC recommends:

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

**REPLACEMENT: COIL SPRINGS – AUDI A6 AVANT (4B5, C5).  
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 cowl grille seal.



**4** Raise up and remove the cowl grille.



5

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



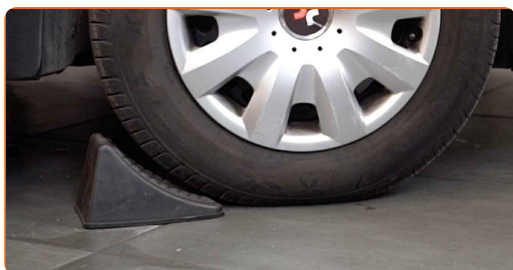
6

Loosen the upper fastener of the shock strut mount. Use a drive socket #16. Use a ratchet wrench.



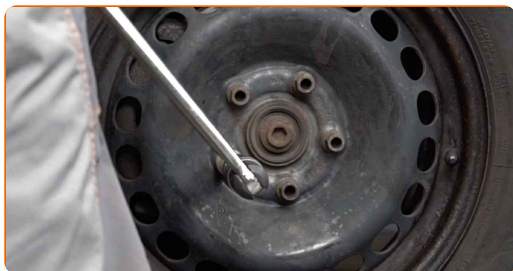
7

Secure the wheels with chocks.



8

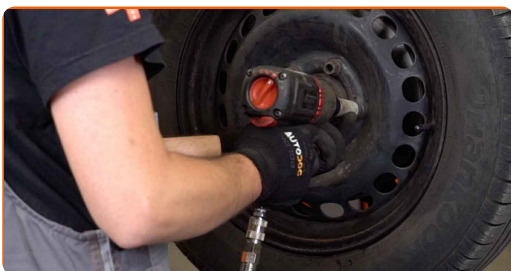
Loosen the wheel mounting bolts. Use wheel impact socket #17.



9

Raise the front of the car and secure on supports.

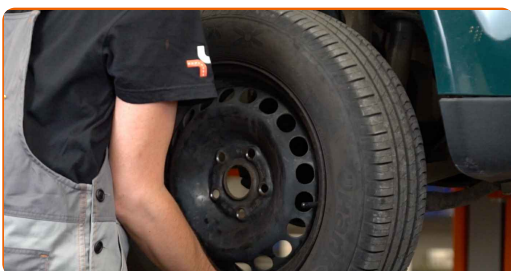
**10** Unscrew the wheel bolts.



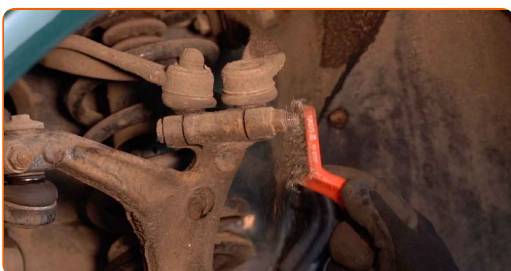
**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.  
AUDI A6 Avant (4B5, C5)

**11** Remove the wheel.



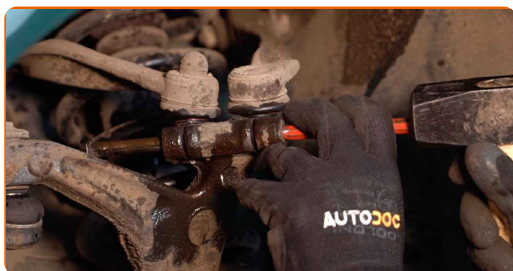
**12** Clean all joints of the arm. Use a wire brush. Use WD-40 spray.



**13** Unscrew the upper control arm fasteners (2 pieces). Use a combination spanner #16. Use a drive socket #16.



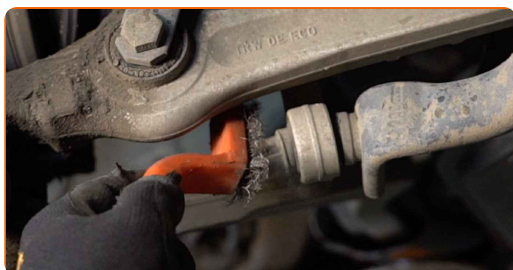
**14** Remove the fastening bolt. Use a pin punch. Use a hammer.



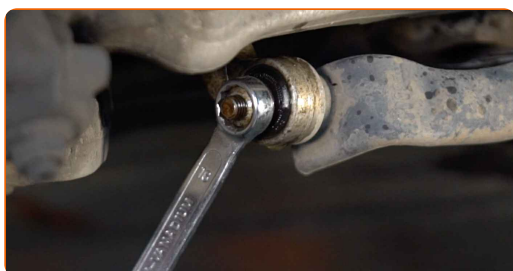
**15** Detach the upper control arm from the steering knuckle (2 pieces). Use a crowbar.



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



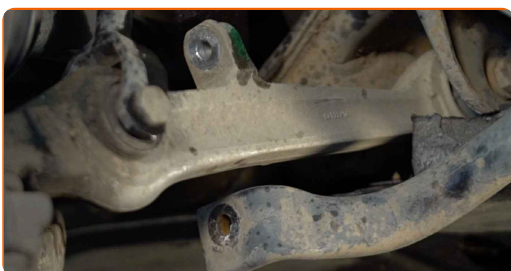
**17** Unscrew the fastener connecting the stabilizer link to the stabilizer bar. Use a combination spanner #16 (2 pieces).



- 18** Unscrew the fastener connecting the stabilizer bar with the control arm. Use a combination spanner #16 (2 pieces).



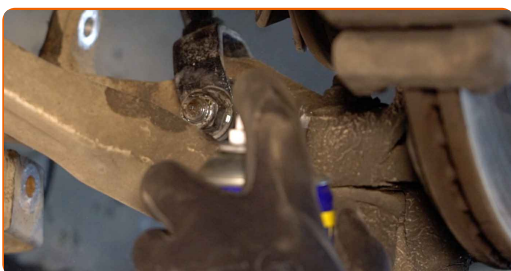
- 19** Remove the stabilizer rod.



**Replacement: coil springs – AUDI A6 Avant (4B5, C5). Tip:**

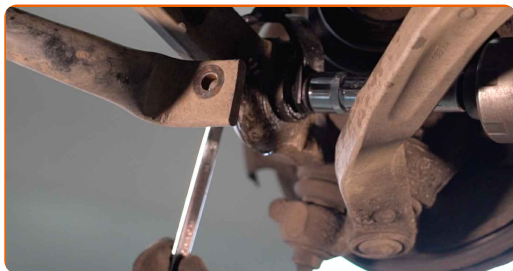
- Examine stabiliser bushes. Replace them if needed.

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

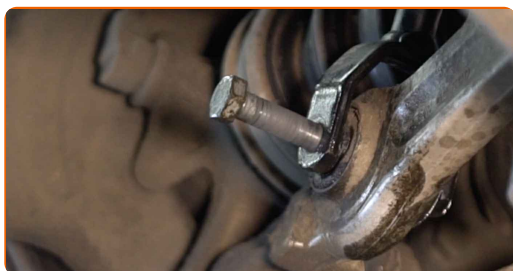




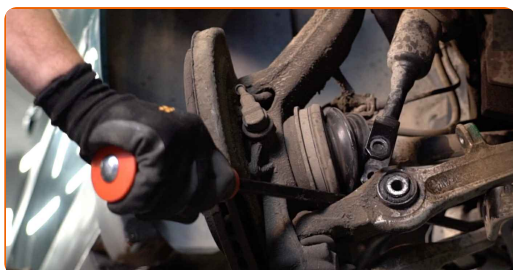
**21** Unscrew the lower fastener of the shock absorber strut. Use a drive socket #18. Use a combination spanner #18.



**22** Remove the fastening bolt.



**23** Detach the bottom part of the shock strut. Use a crowbar.



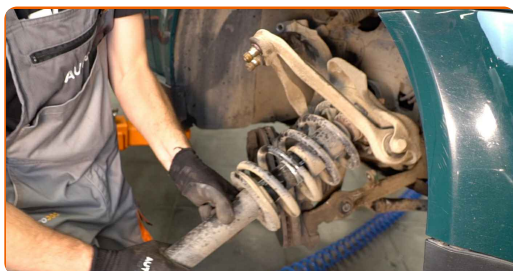
**24** Unscrew the top fastening of the shock strut mount.



**AUTODOC recommends:**

- AUDI A6 Avant (4B5, C5) – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

**25** Remove the suspension strut.



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



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



**28** Remove the upper shock absorber mount assembled with the control arms.



**29**

Set the shock absorber strut on the spring compressor tool.



**Replacement: coil springs – AUDI A6 Avant (4B5, C5). 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.

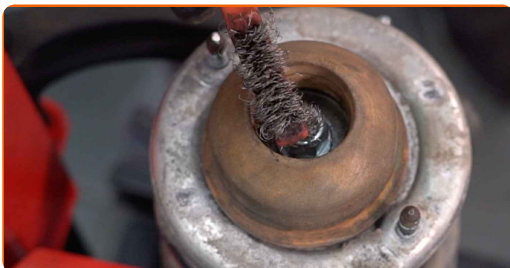
**30**

Compress the spring.



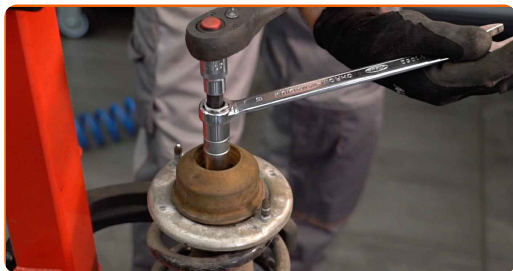
**31**

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



32

Remove the strut piston rod nut. Use HEX No.H6. Use a drive socket #18. Use a ratchet wrench.



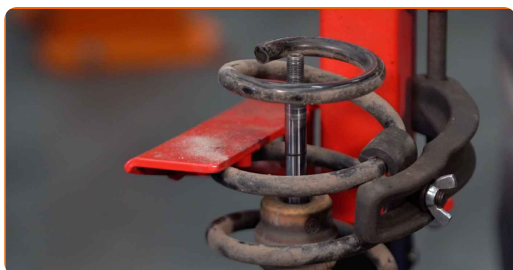
33

Remove the top strut mount. Use a crowbar.



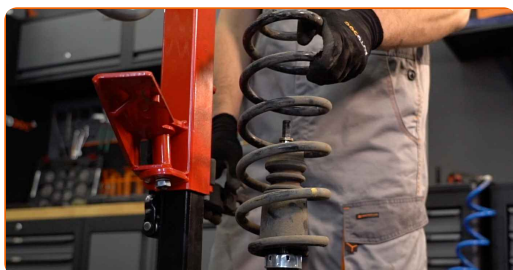
34

Release the coil spring.



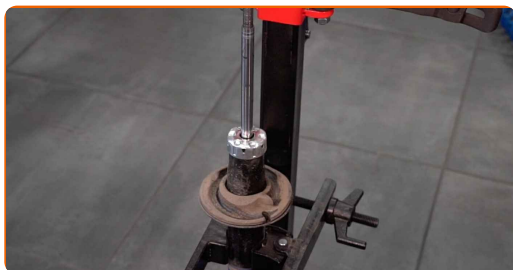
35

Remove the spring.



36

Remove the shock absorber dust cap and the bump stop.



**AUTODOC recommends:**

- Replacement: coil springs – AUDI A6 Avant (4B5, C5). Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

**37**

Install the spring on the shock absorber.



**38**

Compress the spring.



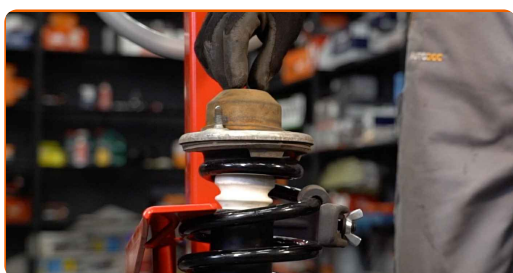
**39**

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



**40**

Install the upper strut mount and the strut mount bearing.



- 41** Tighten the shock strut piston rod nut. Use HEX No.H6. Use a drive socket #18. Use a torque wrench. Tighten it to 50 nm torque.



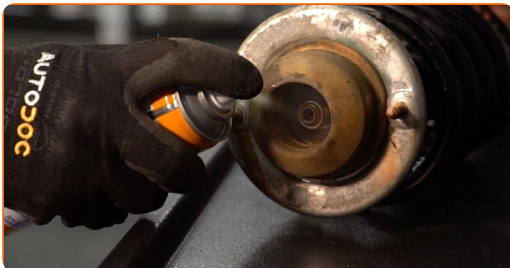
Replacement: coil springs – AUDI A6 Avant (4B5, C5). Tip from AUTODOC experts:

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

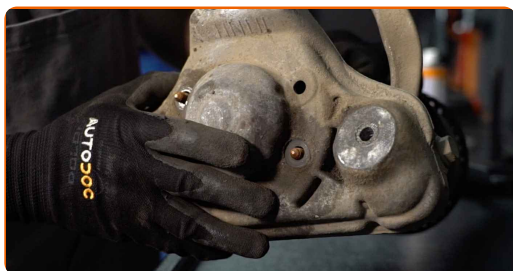
- 42** Decompress the spring. Remove the assembled shock strut.



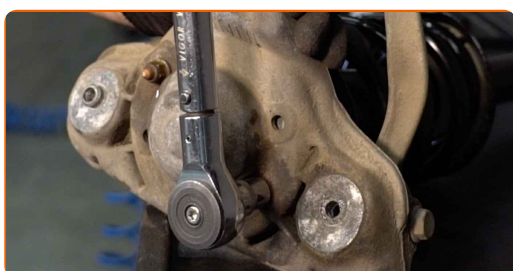
- 43** Treat the shock strut rod. Use copper grease.



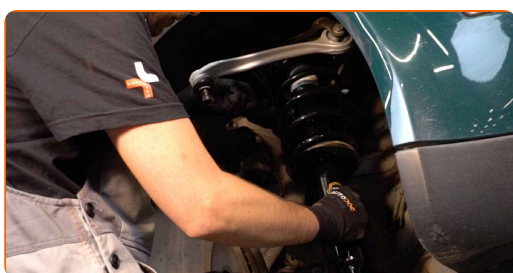
**44** Install the upper shock absorber mount assembled with the control arms.



**45** Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 22 nm torque.



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



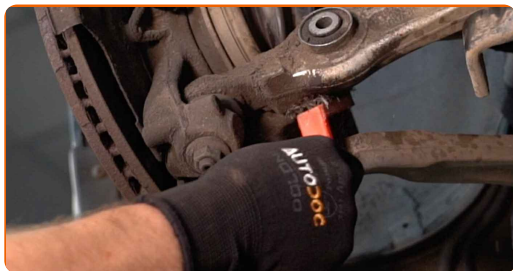
**47** Screw the top fastening of the shock strut mount. Use a drive socket #15. Use a ratchet wrench. Do not tighten it.



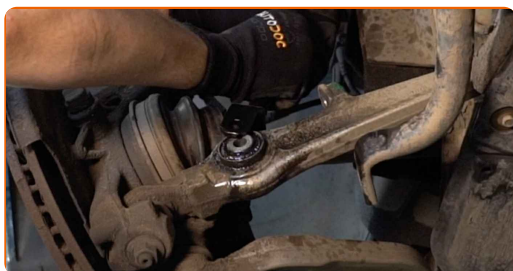
**AUTODOC recommends:**

- AUDI A6 Avant (4B5, C5) – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

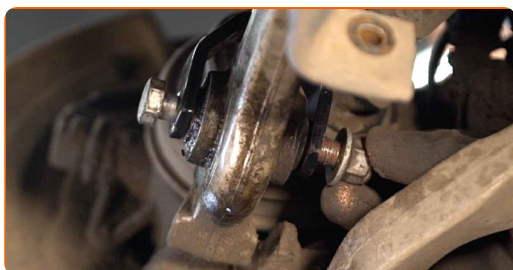
**48** Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



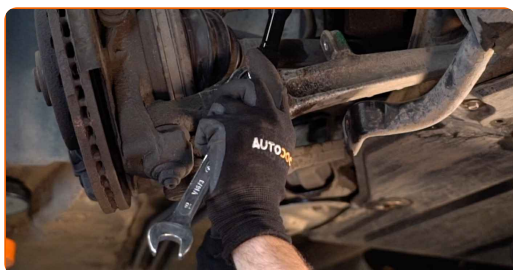
**49** Attach the suspension control arm to the shock strut.



**50** Install the fastening bolt.

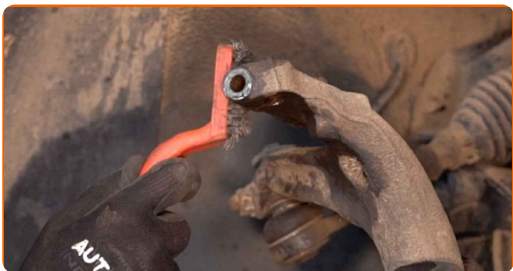


**51** Screw in the lower fastener of the shock strut. Use a combination spanner #18. Use a drive socket #18.

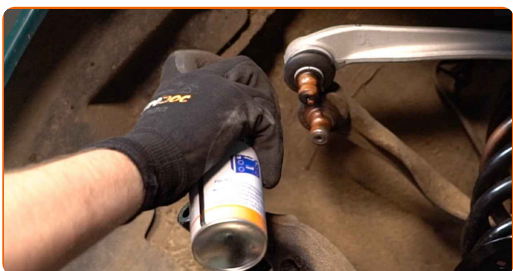




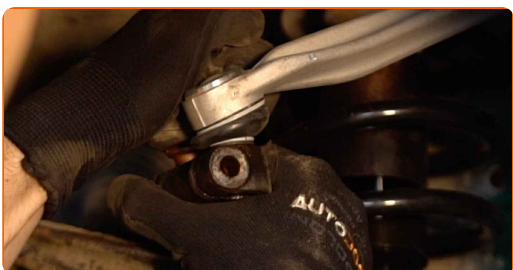
**52** Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.



**53** Treat all joints of the arm. Use copper grease.



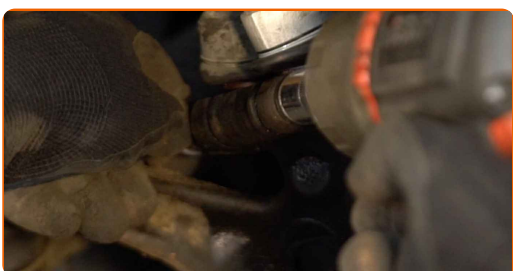
**54** Attach the upper control arm to the steering knuckle (2 pieces).



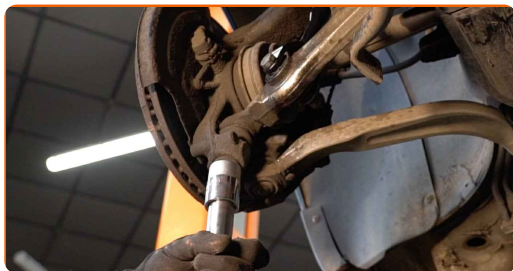
**55** Install the fastening bolt.



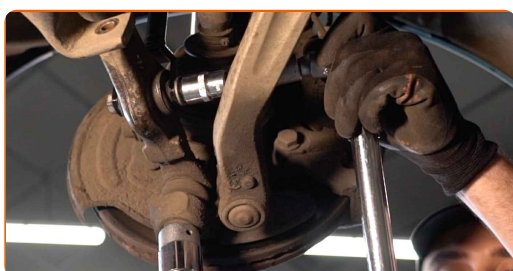
**56** Screw in the fasteners (2 pieces) of the upper control arm. Use a combination spanner #16. Use a drive socket #16.



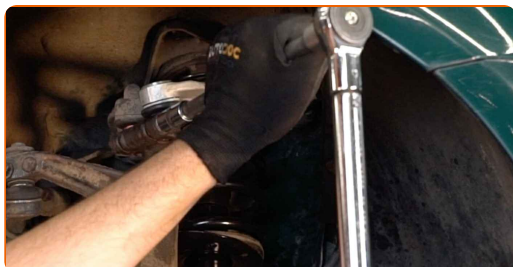
**57** Support the arm. Use a hydraulic transmission jack.



**58** Tighten the lower fastening of the shock absorber. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 90 Nm torque.



**59** Tighten the upper control arm fasteners (2 pieces). Use a combination spanner #16. Use a drive socket #16. Use a torque wrench. Tighten it to 40 Nm torque.



**60** Remove the support from under the arm.

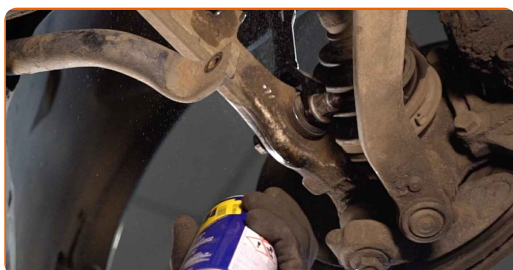


**AUTODOC recommends:**

- Replacement: coil springs – AUDI A6 Avant (4B5, C5). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

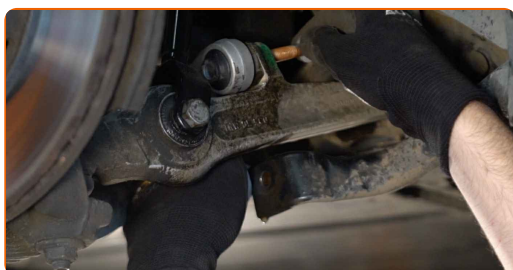
**61**

Clean the mounting seats of the stabiliser link. Use a wire brush. Use WD-40 spray.



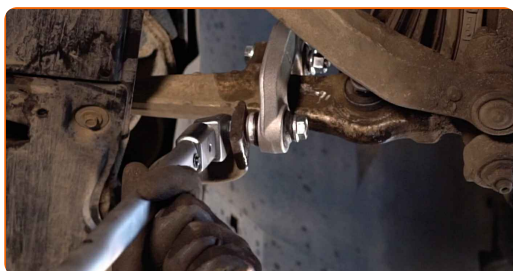
**62**

Install the transverse stabilizer link.



**63**

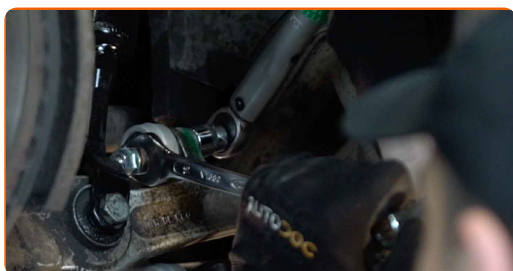
Tighten the fastener connecting the stabilizer bar with the control arm. Use a combination spanner #16. Use a drive socket #16. Use a torque wrench. Tighten it to 40 Nm torque.+90°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

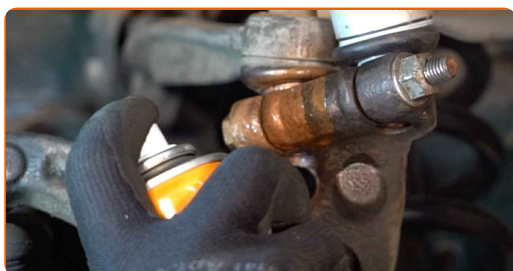
**64** Tighten the fastener connecting the stabilizer link to the stabilizer bar. Use a combination spanner #16. Use a drive socket #16. Use a torque wrench. Tighten it to 40 Nm torque.+90°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

**65** Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.



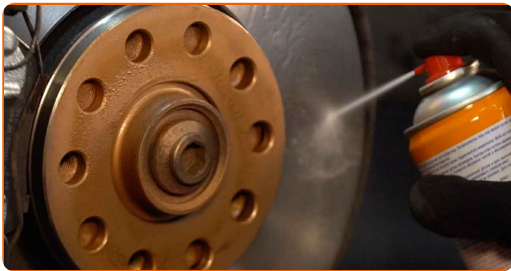
**66**

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



**67**

Clean the brake disk surface. Use a brake cleaner.

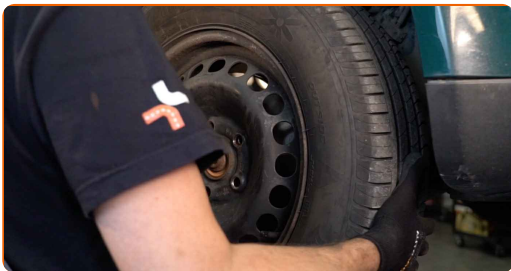


**AUTODOC recommends:**

- Replacement: coil springs – AUDI A6 Avant (4B5, C5). After applying the spray, wait a few minutes.

**68**

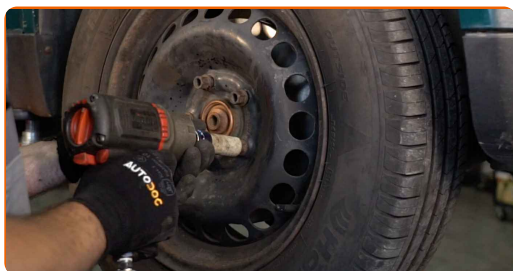
Install the wheel.



**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. AUDI A6 Avant (4B5, C5)

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



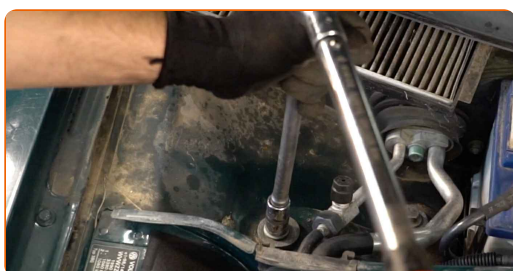
**70** Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 120 nm torque.



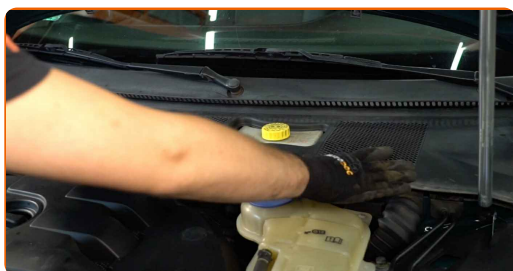
**71** Remove the jacks and chocks.



**72** Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #16. Use a torque wrench. Tighten it to 65 nm torque.

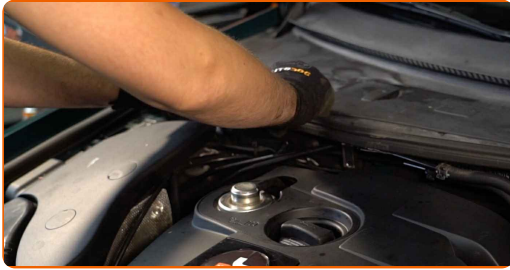


**73** Install and secure the cowl grille.



74

Install the cowl grille seal.



75

Remove the fender protection cover.

76

Close the hood.

**WELL DONE!** 

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