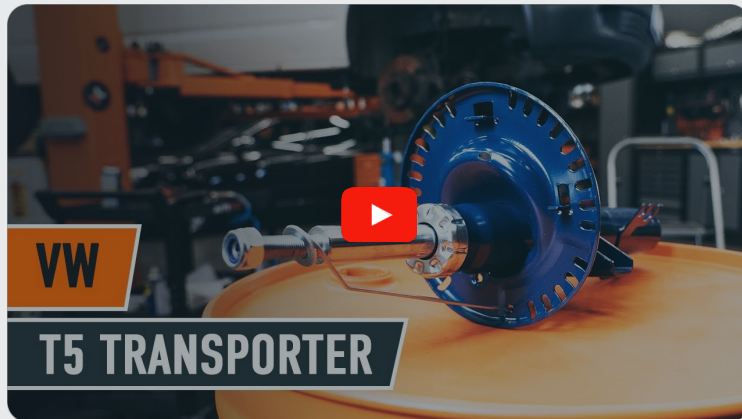




How to change front
suspension strut on **VW
Multivan VI (SGF, SGM,
SGN)** – replacement
guide

SIMILAR VIDEO TUTORIAL



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

i Important!

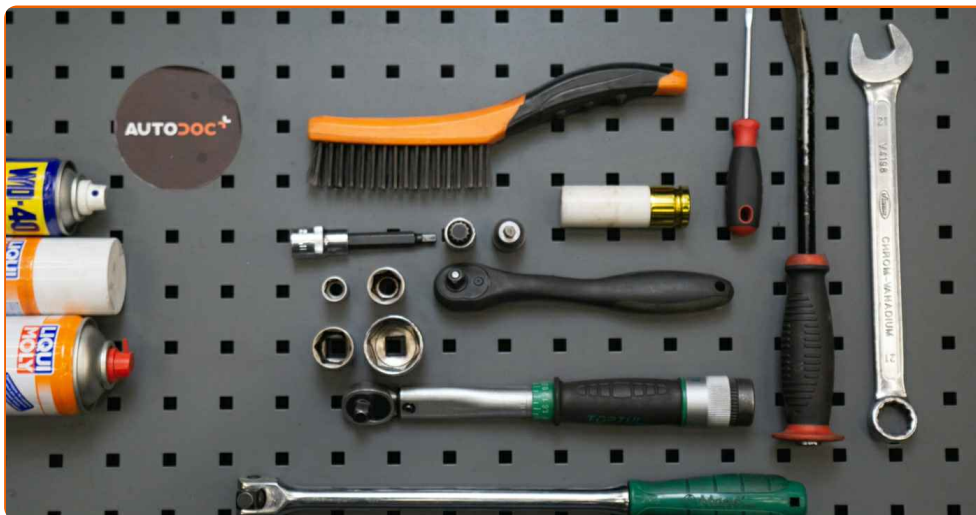
This replacement procedure can be used for:

VW Multivan VI (SGF, SGM, SGN) 2.0 TDI, VW Multivan VI (SGF, SGM, SGN) 2.0 TDI 4motion, VW Multivan VI (SGF, SGM, SGN) 2.0 TSI, VW Multivan VI (SGF, SGM, SGN) 2.0 TSI 4motion, VW Multivan VI (SGF, SGM, SGN) 2.0 TDI (Cxec), VW Multivan VI (SGF, SGM, SGN) 2.0 TDI 4motion (Cxec)

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 Transporter V Van (7HA, 7HH, 7EA, 7EH) 1.9 TDI

REPLACEMENT: SUSPENSION STRUT – VW MULTIVAN VI (SGF, SGM, SGN). TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Torque wrench
- Combination spanner #21
- Drive socket # 13
- Drive socket # 18
- Drive socket # 21
- Drive socket # 30
- Shock absorber socket
- HEX bit No.H7
- XZN bit #14
- Wheel impact socket #19
- Ratchet wrench
- Flat Screwdriver
- Tap wrench
- Hydraulic strut spring compressor
- Crow bar
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). Tip from AUTODOC:

- 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 – VW Multivan VI (SGF, SGM, SGN) – 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 windscreen wiper arm nut covers. Use a flat screwdriver.



4 Clean the fasteners of the wiper arms. Use a wire brush. Use WD-40 spray.



5

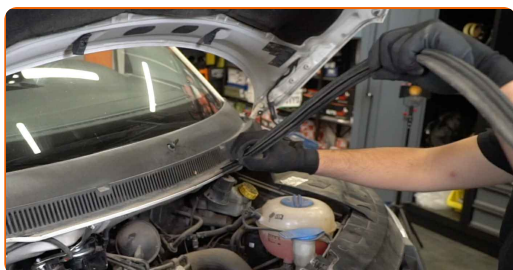
Unscrew the fasteners of the windscreen wiper arms. Use a drive socket #13. Use a ratchet wrench.

**6**

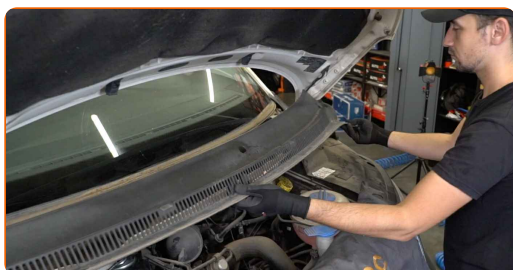
Remove the wiper arms.

**7**

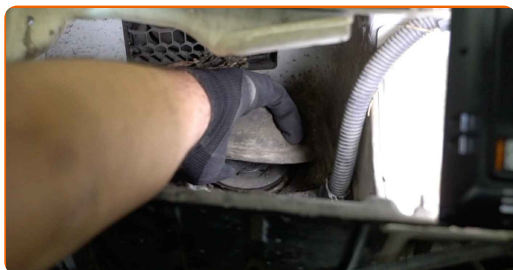
Remove the cowl grille seal.

**8**

Raise up and remove the cowl grille.

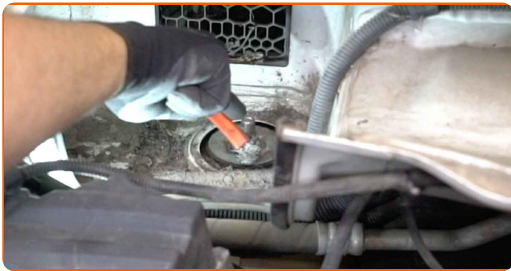
**9**

Remove the shock strut mount cap.



10

Clean the upper fastener of the suspension strut mount. Use a wire brush. Use WD-40 spray.



11

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



12

Secure the wheels with chocks.

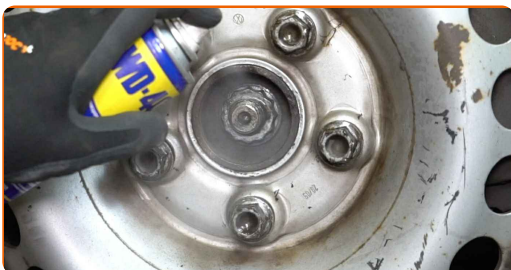
13

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

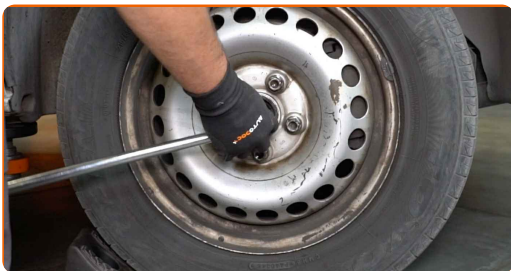


14

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



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



16 Raise the front of the car and secure on supports.

17 Unscrew the wheel bolts.



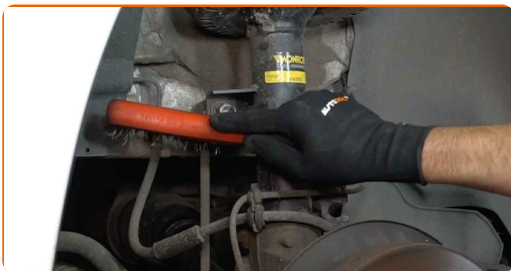
AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. VW Multivan VI (SGF, SGM, SGN)

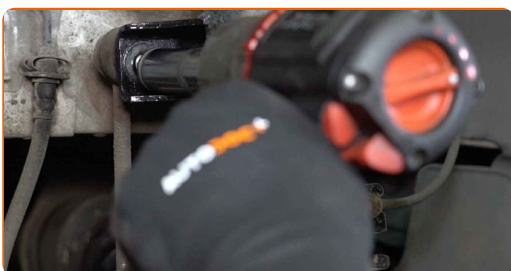
18 Remove the wheel.



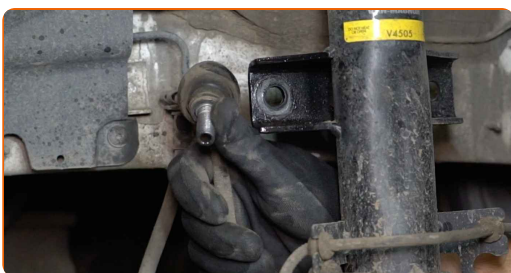
19 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



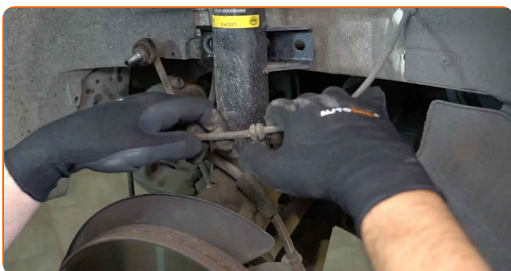
20 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a ratchet wrench.



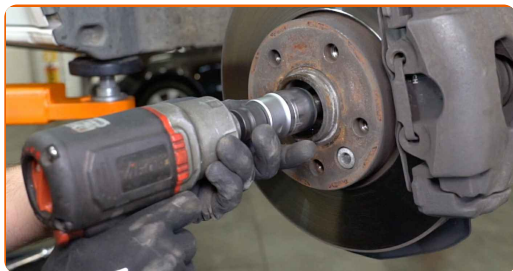
21 Remove the stabilizer rod.



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



23 Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #30. Use a ratchet wrench.



24 Remove the fastening nut.

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



AUTODOC recommends:

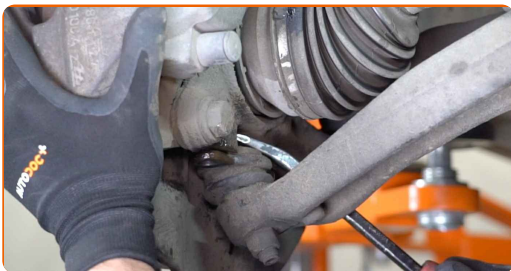
- Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). After applying the spray, wait a few minutes.
- Wear protective goggles.
- Wear a respirator.

26 Unscrew the ball joint fastening to the steering knuckle. Use XZN #14. Use a ratchet wrench.

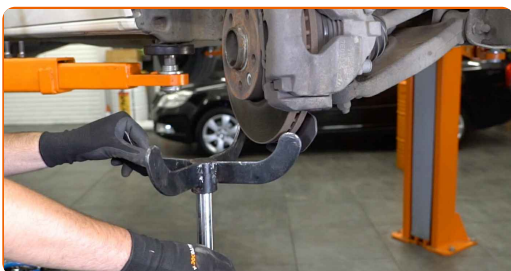


27

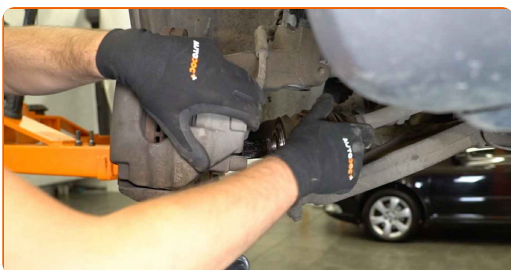
Disconnect the ball joint from the steering knuckle. Use a crowbar.

**28**

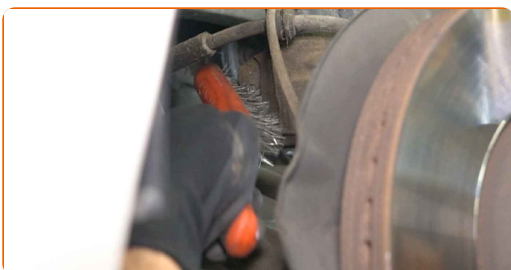
Prop up the steering knuckle. Use a hydraulic transmission jack.

**29**

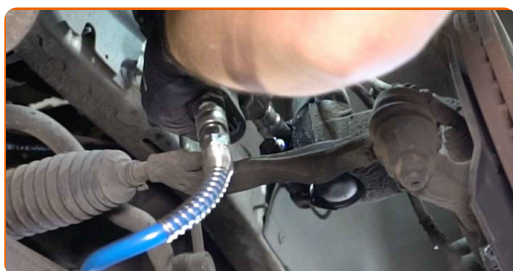
Remove the drive shaft.

**30**

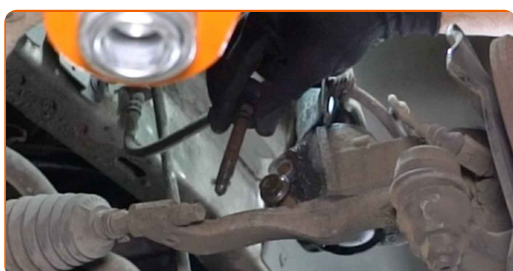
Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



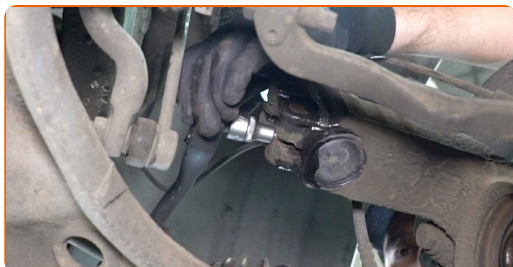
- 31** Unscrew the fasteners connecting the suspension strut to the steering knuckle. Use a drive socket #18. Use a ratchet wrench.



- 32** Remove the fastening bolts.



- 33** 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.



- 34** Disconnect the steering knuckle from the shock absorber strut.



- 35** Unscrew the top fasteners of the suspension strut mount.

AUTODOC recommends:

- Important! Hold the suspension strut while unscrewing the fastening bolts. VW Multivan VI (SGF, SGM, SGN)

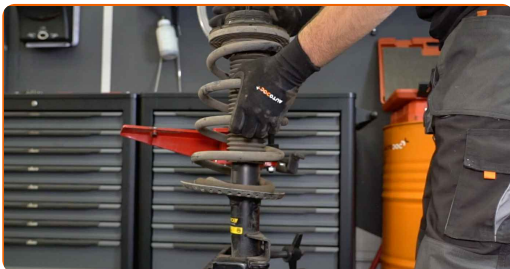
36

Remove the suspension strut.



37

Set the shock absorber strut on the spring compressor tool.



Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). Tip from AUTODOC:

- 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.

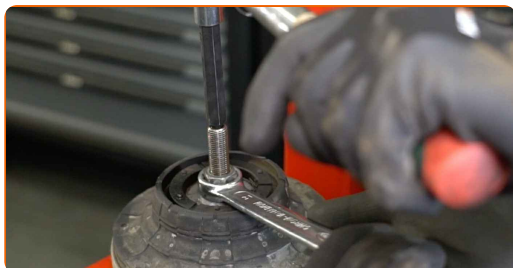
38 Compress the spring.



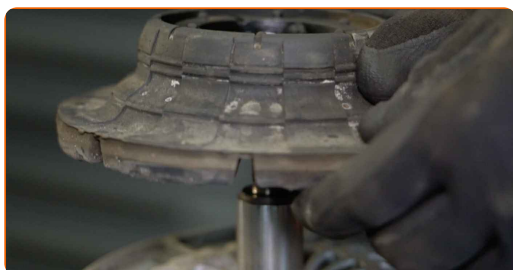
39 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



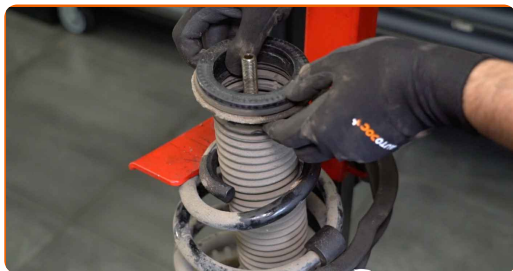
40 Remove the strut piston rod nut. Use a combination spanner #21. Use HEX No.H7. Use a ratchet wrench.



41 Remove the top strut mount.



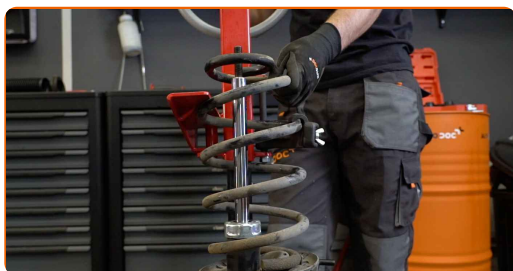
42 Remove the shock absorber dust cap and the bump stop.



AUTODOC recommends:

- Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

43 Release the coil spring.



44 Remove the spring.



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



Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). Tip:

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

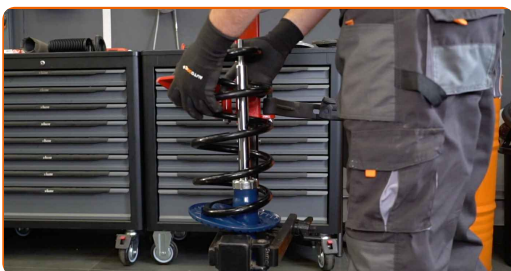
46

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



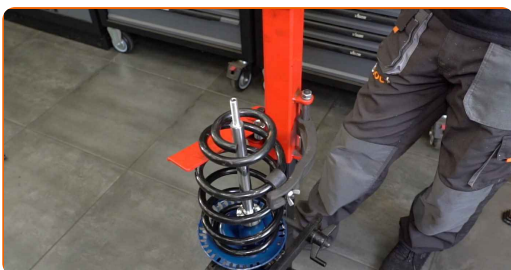
47

Install the spring on the shock absorber.



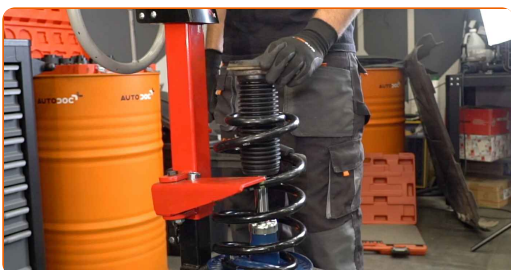
48

Compress the spring.



49

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



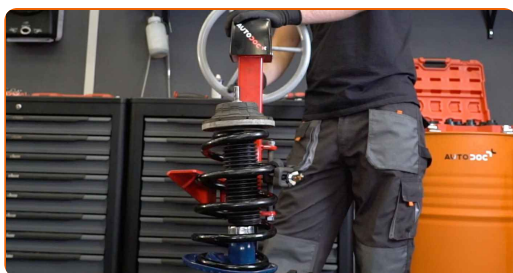
50 Install the upper strut mount and the strut mount bearing.



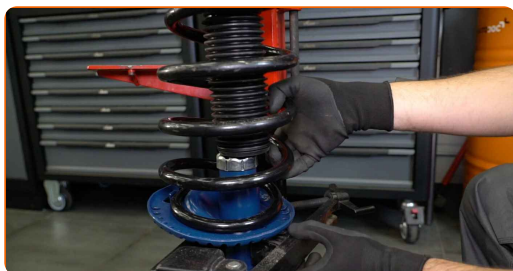
51 Tighten the shock strut piston rod nut. Use a drive socket #21. Use HEX No.H7. Use a torque wrench. Tighten it to 80 Nm torque.



52 Decompress the spring.



53 Remove the assembled shock strut.



54 Treat the shock strut rod. Use copper grease.



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



56 Install the shock strut into the wheel arch.



57 Screw in the top fasteners of the suspension strut mount. Do not tighten it.

AUTODOC recommends:

- VW Multivan VI (SGF, SGM, SGN) – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

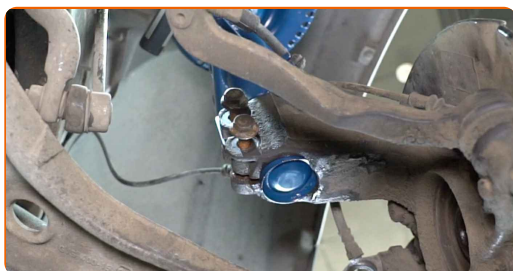
58 Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



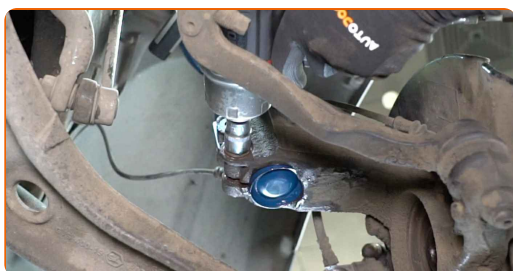
59 Fix the shock absorber strut on the steering knuckle.



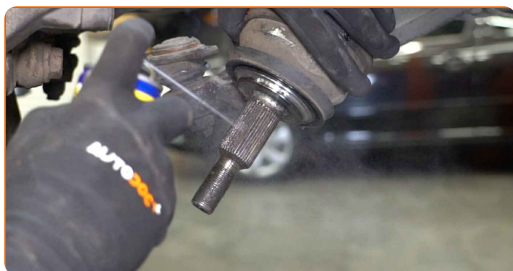
60 Install the fastening bolts.



61 Screw in the fasteners connecting the suspension strut to the steering knuckle. Use a drive socket #18. Use a ratchet wrench.

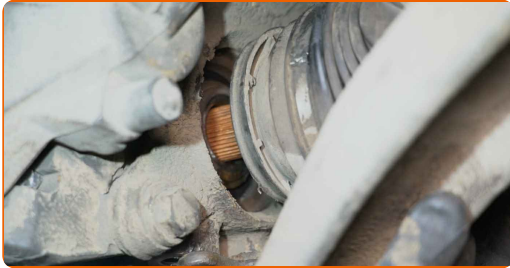


62 Clean the splines of the drive shaft CV joint. Use a wire brush. Use WD-40 spray.



63

Install the drive shaft.



64

Remove the support from under the steering knuckle.

AUTODOC recommends:

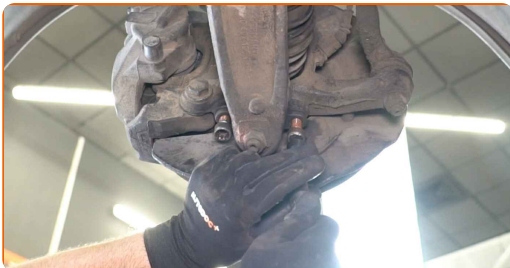
- VW Multivan VI (SGF, SGM, SGN) – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

65

Connect the ball joint to the steering knuckle.

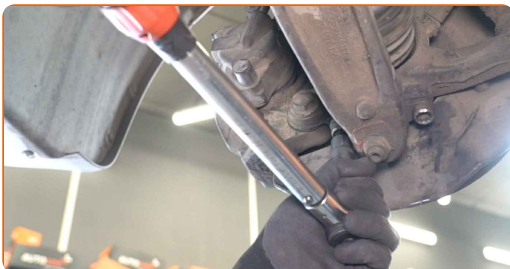
66

Screw the fastener connecting the ball joint to the steering knuckle. Use XZN #14. Use a ratchet wrench.



67

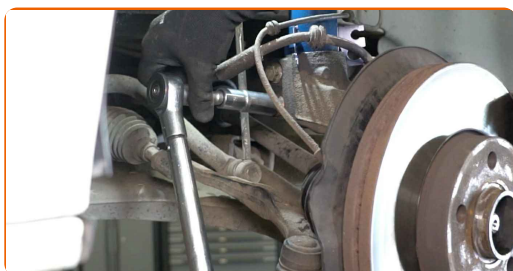
Tighten the fastener connecting the ball joint to the steering knuckle. Use XZN #14. Use a torque wrench. Tighten it to 90 Nm torque.+45°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

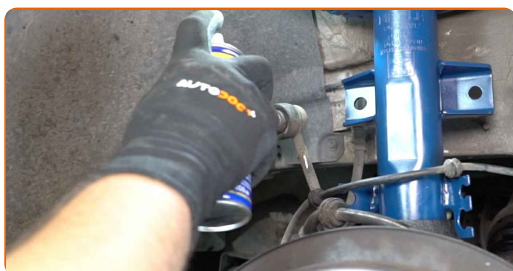
68 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 125 Nm torque.+90°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

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



70 Install the transverse stabilizer link.



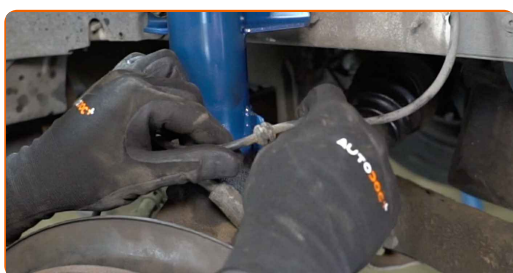
71 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a torque wrench. Tighten it to 60 Nm torque. +45°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

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



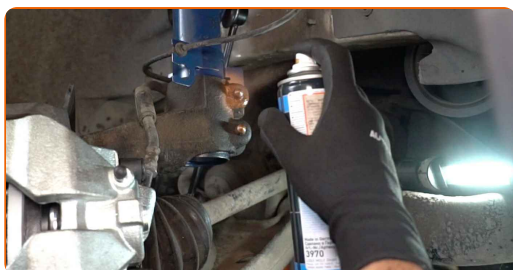
73 Install the fastening nut.



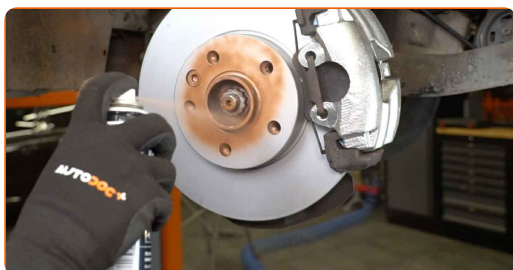
74 Screw the nut of the drive shaft. Use a drive socket #30. Use a ratchet wrench.



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



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



77

Clean the brake disk surface. Use a brake cleaner.

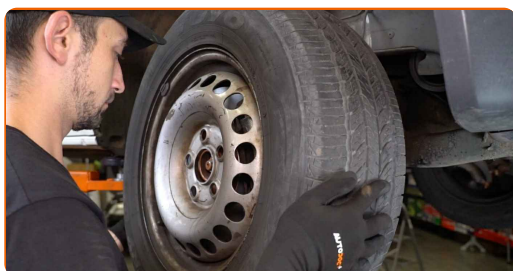


AUTODOC recommends:

- Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). After applying the spray, wait a few minutes.

78

Install the wheel.

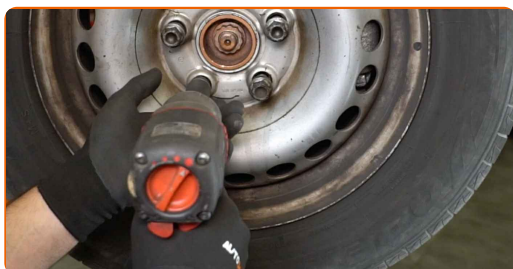


AUTODOC recommends:

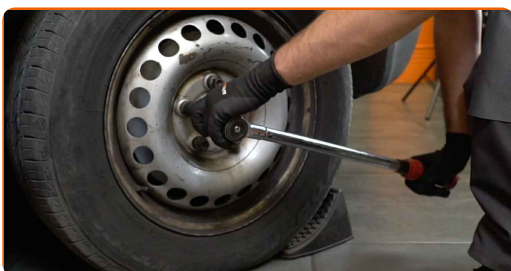
- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. VW Multivan VI (SGF, SGM, SGN)

79

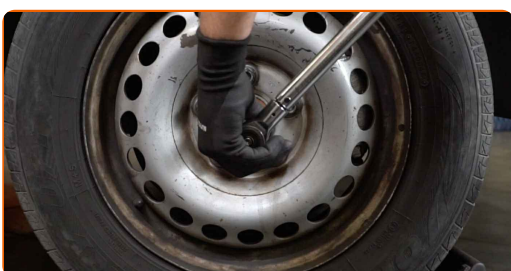
Screw in the wheel bolts. Use wheel impact socket #19.



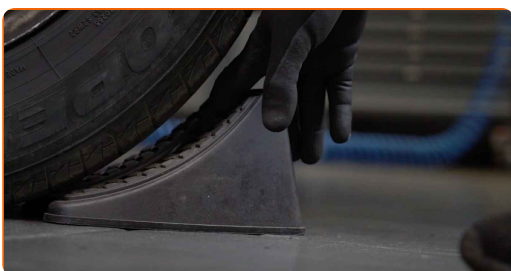
- 80** Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #19. Use a torque wrench. Tighten it to 180 Nm torque.



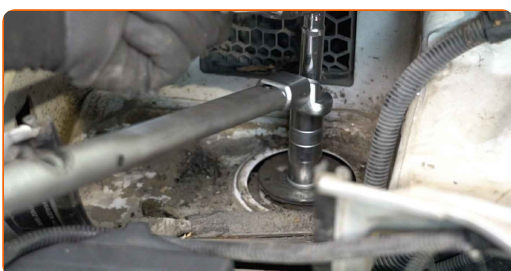
- 81** Tighten the drive shaft nut. Use a drive socket #30. Use a torque wrench. Tighten it to 200 Nm torque.



- 82** Remove the jacks and chocks.



- 83** Tighten the upper fastener of the shock absorber strut mount. Use a combination spanner #21. Use HEX No.H7. Use a torque wrench. Tighten it to 80 Nm torque.

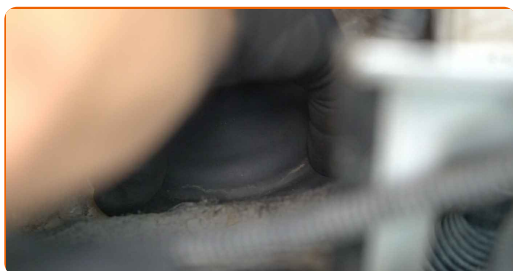


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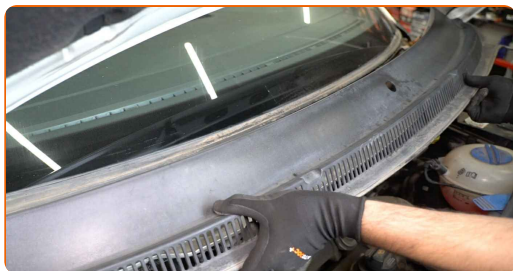
Treat the upper fastener of the suspension strut mount. Use copper grease.

**85**

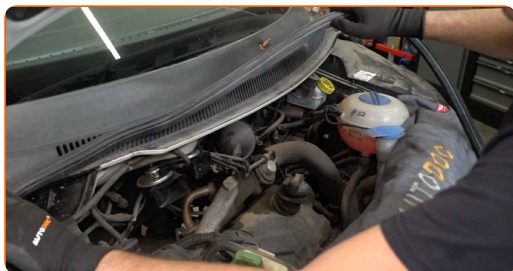
Install the shock strut mount cap.

**86**

Install and secure the cowl grille.

**87**

Install the cowl grille seal.

**88**

Reinstall the wiper arms.



Replacement: suspension strut – VW Multivan VI (SGF, SGM, SGN). AUTODOC experts recommend:

- Make sure not to mix up the wiper arms on the driver's and passenger's sides.

89 Tighten the wiper arm fasteners. Use a drive socket #13. Use a torque wrench. Tighten it to 20 Nm torque.



90 Install the nut covers of the windscreen wiper arms.



91 Remove the fender protection cover.

92 Close the hood.

WELL DONE! 

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