



How to change front
suspension strut on **VW**
Passat (A32, A33) –
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:

VW Passat (A32, A33) 2.0 TDI

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 Golf V Hatchback (1K1) 1.6

REPLACEMENT: SUSPENSION STRUT – VW PASSAT (A32, A33). LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Copper grease
- Brake cleaner
- Combination spanner #17
- Drive socket # 13
- Drive socket # 16
- Drive socket # 18
- Drive socket # 21
- Drive socket # 27
- HEX bit No.H6.
- XZN socket bit # 12
- Wheel impact socket #17
- Shock absorber socket
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: suspension strut – VW Passat (A32, A33). 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 – VW PASSAT (A32, A33). USE THE FOLLOWING PROCEDURE:

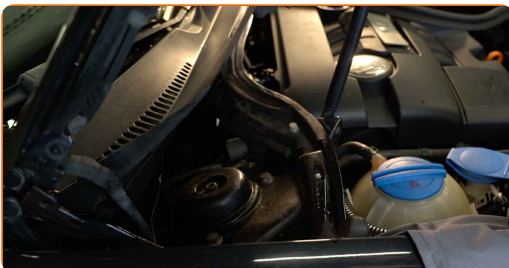
1 Open the bonnet.

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 WD-40 spray.



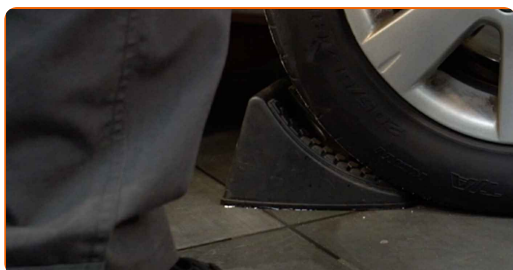
6

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



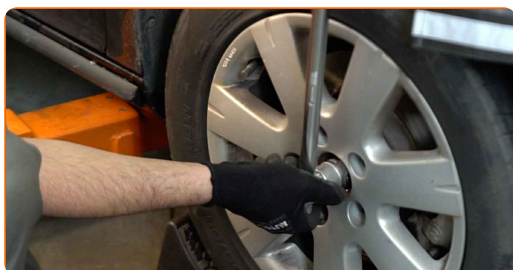
7

Secure the wheels with chocks.



8

Loosen the wheel hub fastener. Use a drive socket #27. Use a tap wrench.



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



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

11 Unscrew the wheel bolts.

Replacement: suspension strut – VW Passat (A32, A33). Tip:

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

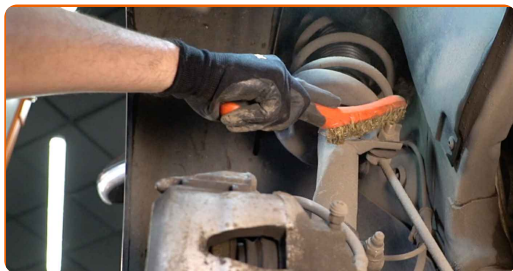
12 Remove the wheel.



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



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

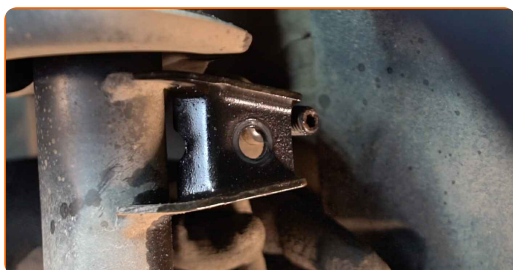


15 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.

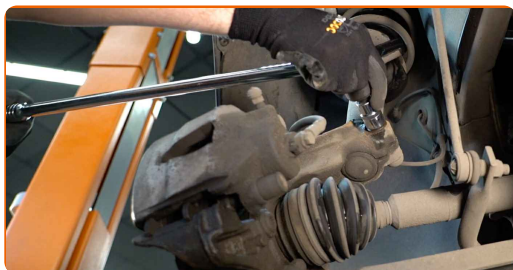
16 Unscrew the nut and remove the stabilizer rod from the shock strut. Use a drive socket #18. Use a ratchet wrench.



17 Remove the stabilizer rod.



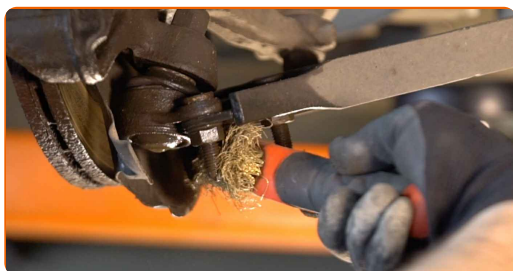
18 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a drive socket #18. Use XZN #12. Use a ratchet wrench. Use a tap wrench.



19 Remove the fastening bolt.



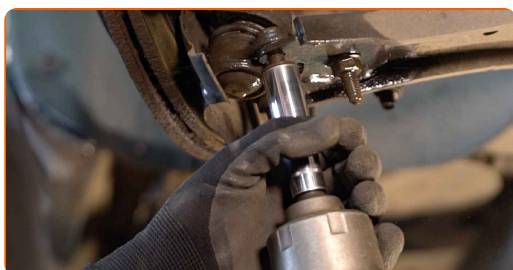
20 Clean all joints of the arm. Use a wire brush. Use WD-40 spray.



AUTODOC recommends:

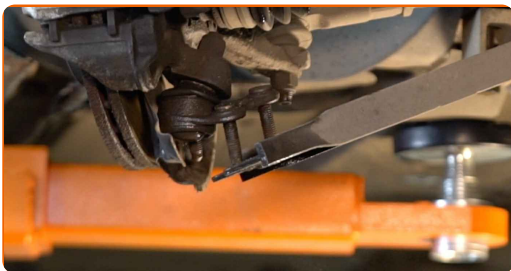
- Replacement: suspension strut – VW Passat (A32, A33). After applying the spray, wait a few minutes.
- Wear protective goggles.

21 Unscrew the fastener connecting the ball joint to the suspension control arm. Use a drive socket #16. Use a tap wrench.



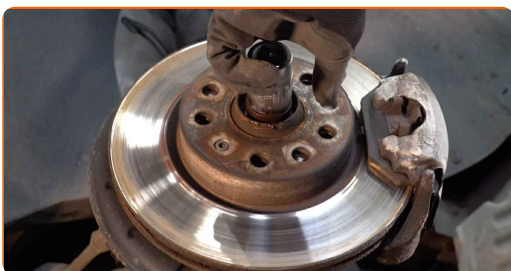
22

Disconnect the spherical joint from the arm.



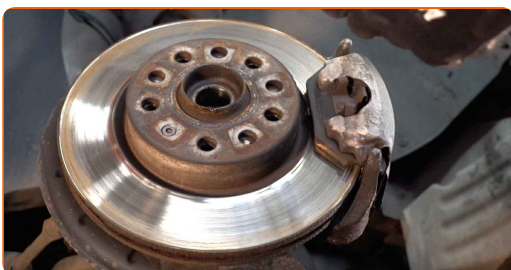
23

Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #27.



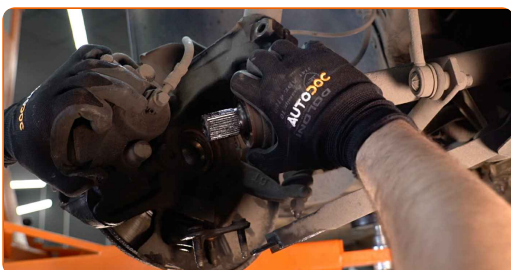
24

Remove the fastening bolt.



25

Remove the drive shaft.



26

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



27

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



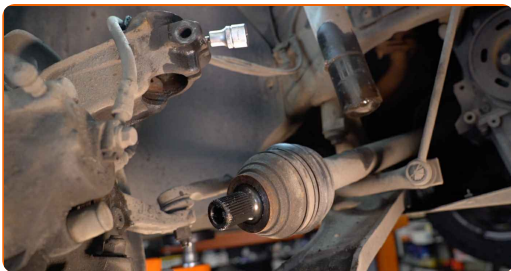
28

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.



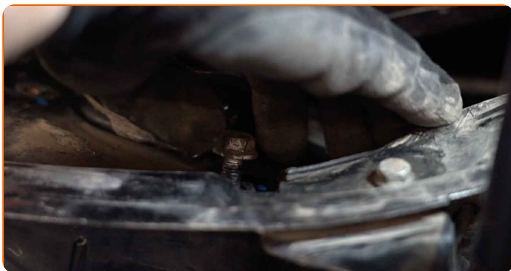
29

Disconnect the steering knuckle from the shock absorber strut.



30

Unscrew the top fastening of the shock strut mount.



AUTODOC recommends:

- Important! Hold the suspension strut while unscrewing the fastening bolts. VW Passat (A32, A33)

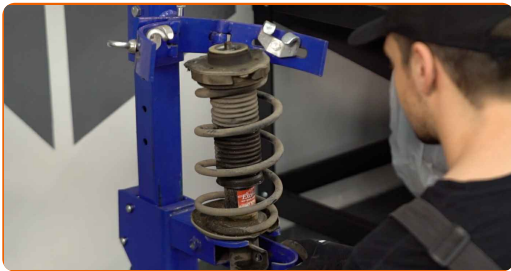
31

Remove the suspension strut.



32

Set the shock absorber strut on the spring compressor tool.

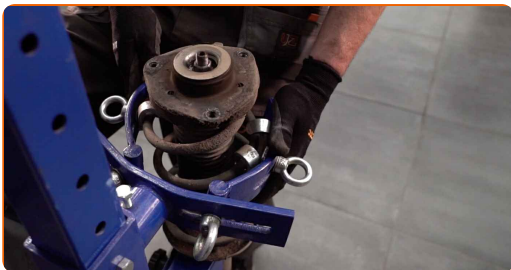


Replacement: suspension strut – VW Passat (A32, A33). Tip from AUTODOC:

- 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.

33

Compress the spring.



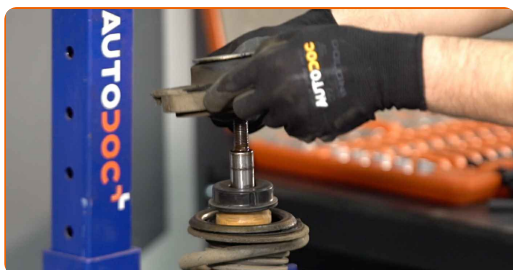
34 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



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



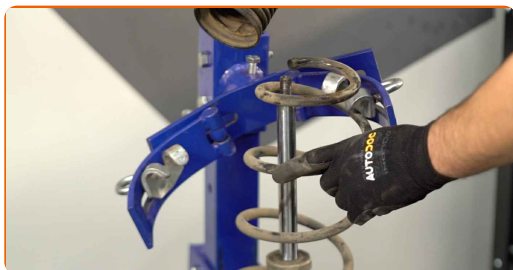
36 Remove the top strut mount.



37 Release the coil spring.



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



AUTODOC recommends:

- Replacement: suspension strut – VW Passat (A32, A33). Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

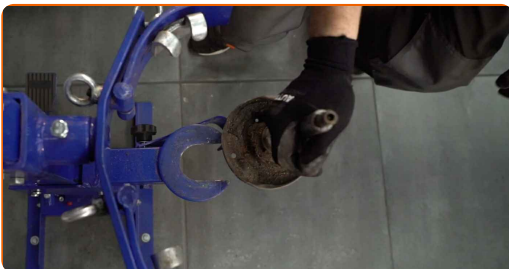
39

Remove the spring.



40

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

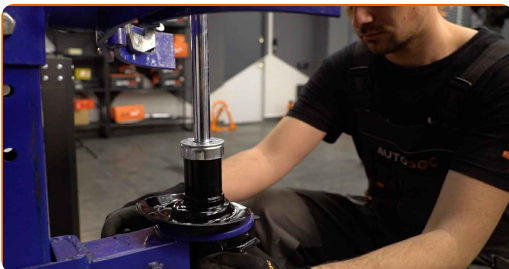


Replacement: suspension strut – VW Passat (A32, A33). Tip from AUTODOC:

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

41

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



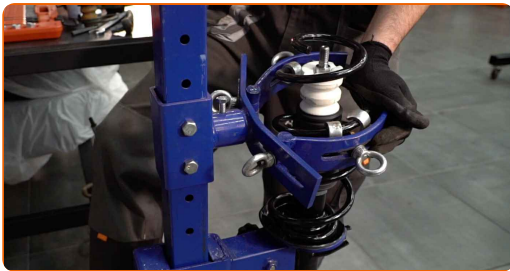
42 Install the spring on the shock absorber.



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



44 Compress the spring.



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



46 Tighten the shock strut piston rod nut. Use HEX No.H6. Use a drive socket #21. Use a torque wrench. Tighten it to 60 Nm torque.



Replacement: suspension strut – VW Passat (A32, A33). Professionals recommend:

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

47

Decompress the spring.



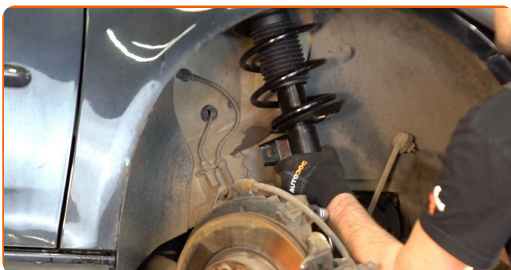
48

Remove the assembled shock strut.



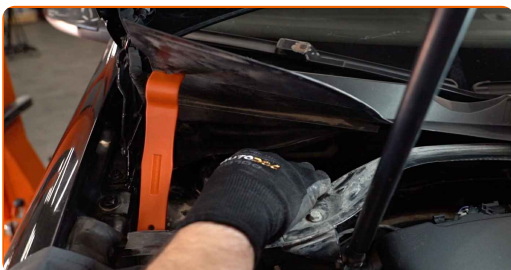
49

Install the shock strut into the wheel arch.



50

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

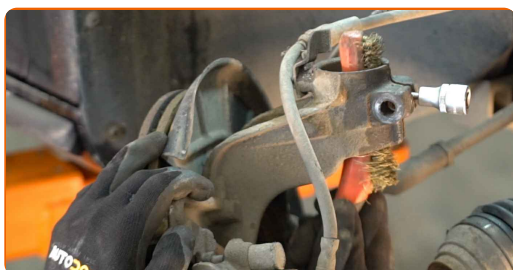


AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. VW Passat (A32, A33)

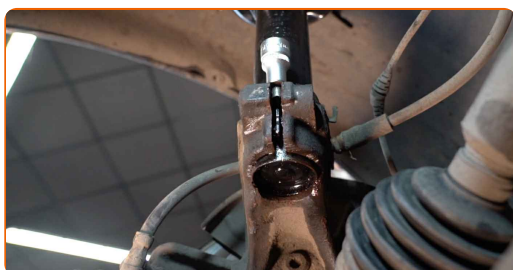
51

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



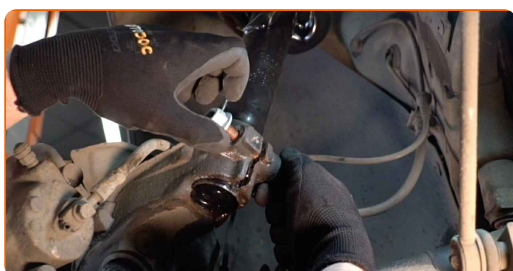
52

Fix the shock absorber strut on the steering knuckle.



53

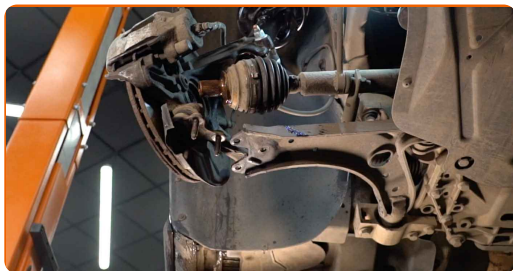
Install the fastening bolt.



54

Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use XZN #12. Use a ratchet wrench.

55 Remove the support from under the steering knuckle.



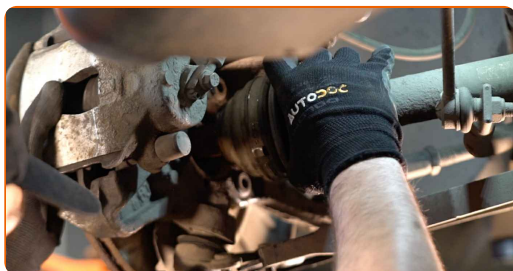
AUTODOC recommends:

- Replacement: suspension strut – VW Passat (A32, A33). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

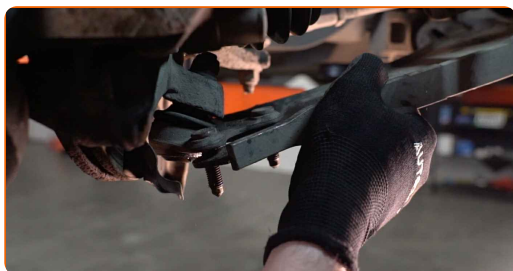
56 Clean the splines of the drive shaft CV joint. Use a wire brush. Use WD-40 spray.



57 Mount the drive shaft into the wheel hub.

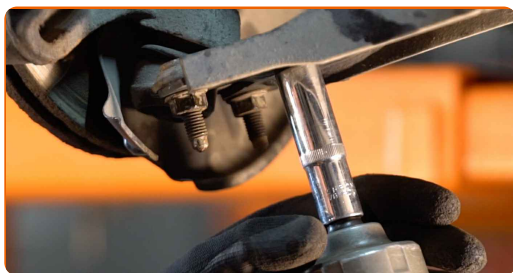


58 Attach the ball joint to the control arm.



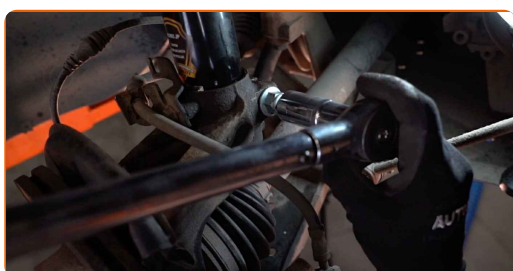
59

Tighten the ball joint fastener. Use a drive socket #16. Use a torque wrench. Tighten it to 60 nm torque.



60

Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 70 Nm torque.+90°

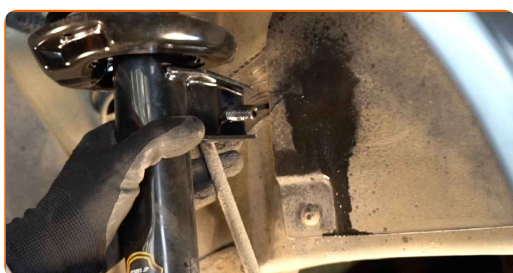


AUTODOC recommends:

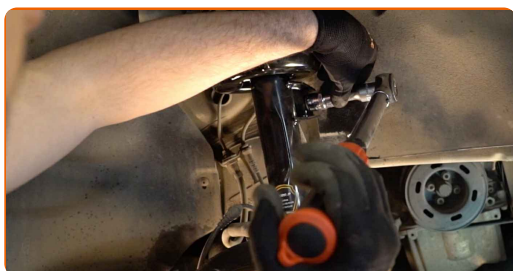
- Important! Be sure to use new fasteners.

61

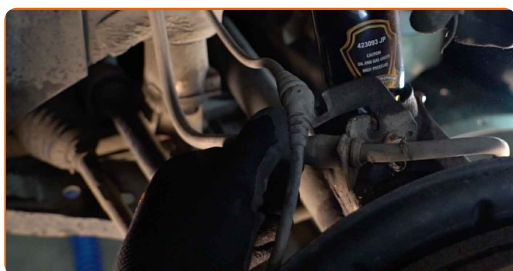
Install the transverse stabilizer link.



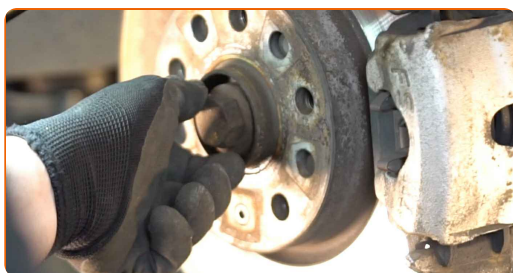
- 62 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a combination spanner #17. Use a torque wrench. Tighten it to 60 Nm torque.



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



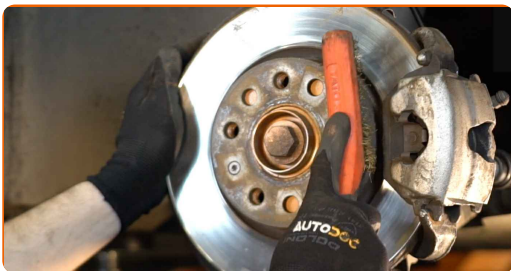
- 64 Install and tighten the drive shaft bolt. Use a drive socket #27.



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

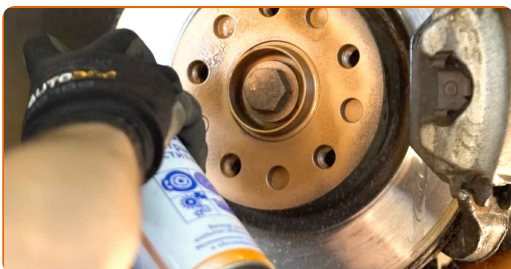


66 Clean the brake disk surface. Use a wire brush.



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

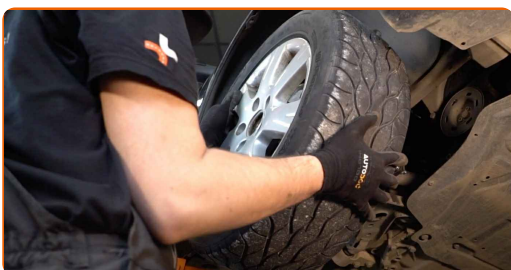
68 Clean the brake disk surface. Use a brake cleaner.



Replacement: suspension strut – VW Passat (A32, A33). Tip from AUTODOC experts:

- After applying the spray, wait a few minutes.

69 Install the wheel.

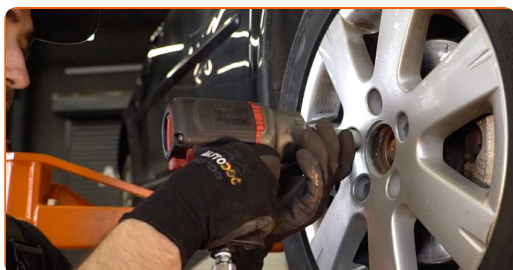


Replacement: suspension strut – VW Passat (A32, A33). Professionals recommend:

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

70

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



71

Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 15 Nm torque. +90°



AUTODOC recommends:

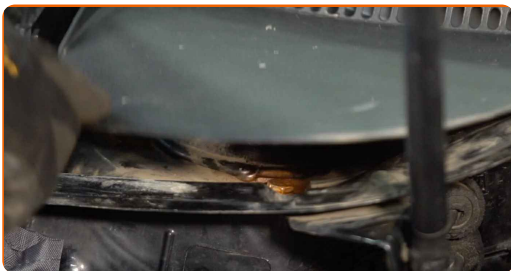
- Important! Be sure to use new fasteners.

72

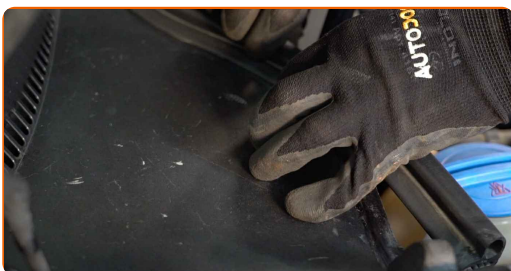
Treat the shock strut fasteners. Use copper grease.



73 Install and secure the cowl grille.



74 Install the cowl grille seal.



75 Lower the car.

76 Tighten the bolt connecting the drive shaft to the wheel hub. Use a drive socket #27. Use a torque wrench. Tighten it to 200 Nm torque.+180°



AUTODOC recommends:

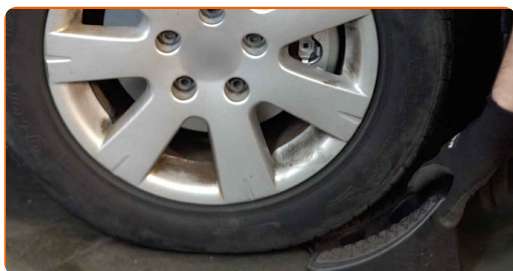
- Important! Be sure to use new fasteners.

77

Tighten the wheel bolts using a criss-cross pattern. Use a torque wrench. Tighten it to 120 Nm torque.

**78**

Remove the jacks and chocks.

**79**

Remove the fender protection cover.

80

Close the hood.

WELL DONE! 

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