



How to change front  
suspension strut on **VW  
New Beetle Hatchback  
(9C1, 1C1)** – replacement  
guide

## SIMILAR VIDEO TUTORIAL



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

### Important!

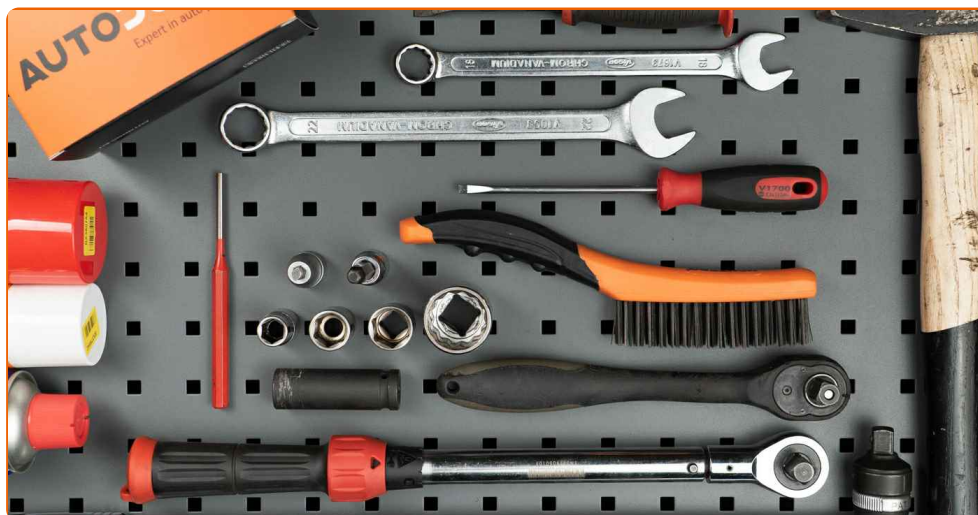
This replacement procedure can be used for:

VW New Beetle Hatchback (9C1, 1C1) 2.0, VW New Beetle Hatchback (9C1, 1C1) 1.9 TDI, VW New Beetle Hatchback (9C1, 1C1) 1.6, VW New Beetle Hatchback (9C1, 1C1) 1.8 T, VW New Beetle Hatchback (9C1, 1C1) 2.3 V5, VW New Beetle Hatchback (9C1, 1C1) 1.4, VW New Beetle Hatchback (9C1, 1C1) 2.5

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 IV Hatchback (1J1) 1.6

REPLACEMENT: SUSPENSION STRUT – VW NEW BEETLE HATCHBACK (9C1, 1C1). TIP:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- Combination spanner #22
- Drive socket # 13
- Drive socket # 18
- Drive socket # 21
- HEX bit no.H7.
- 12-point socket # 30
- Wheel impact socket #17
- Shock absorber socket
- Ratchet wrench
- Torque wrench
- Flat Screwdriver
- Pin punch
- Tap wrench
- Hammer
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

**Buy tools**

Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1).  
AUTODOC experts recommend:

- 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 NEW BEETLE HATCHBACK (9C1, 1C1). USE THE FOLLOWING PROCEDURE:**

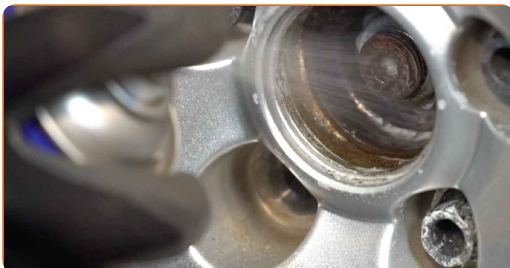
**1** Open the bonnet.

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

**3** Loosen the upper fastener of the shock strut mount. Use a combination spanner #22. Use HEX No.H7.

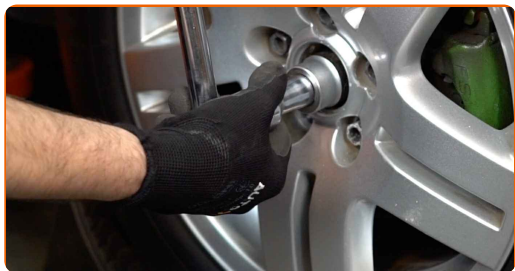


**4** Clean the wheel hub fastener. Use WD-40 spray.



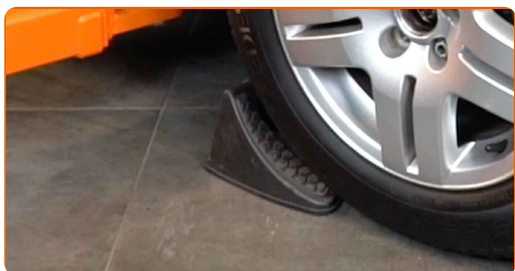
5

Loosen the fastener of the driveshaft. Use 12-point socket No.30. Use a tap wrench.



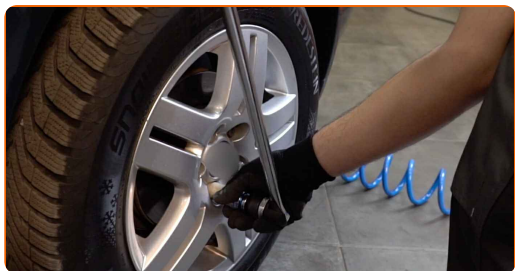
6

Secure the wheels with chocks.



7

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



8

Raise the front of the car and secure on supports.

9

Unscrew the wheel bolts.

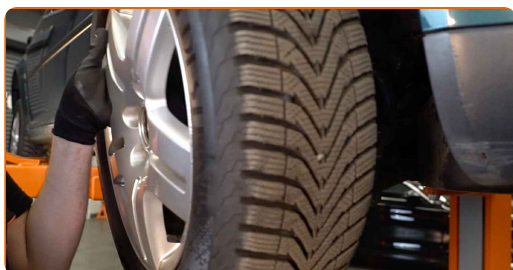


Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1).  
AUTODOC recommends:

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

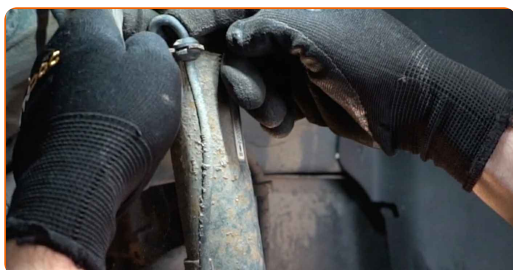
10

Remove the wheel.



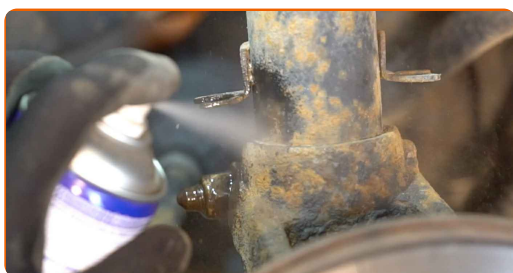
11

Disconnect the fastener of the ABS sensor cable from the shock absorber strut. Use a flat screwdriver.



12.1

Clean the fasteners connecting the shock strut to the steering knuckle.



12.2

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



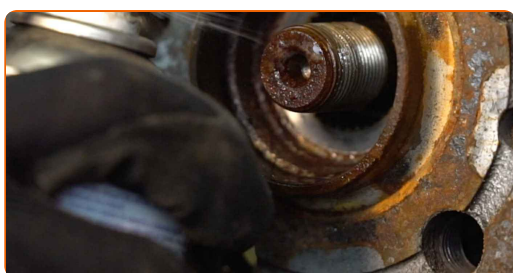
- 13 Unscrew the fastener connecting the ball joint to the suspension control arm. Use a drive socket #13. Use a tap wrench.



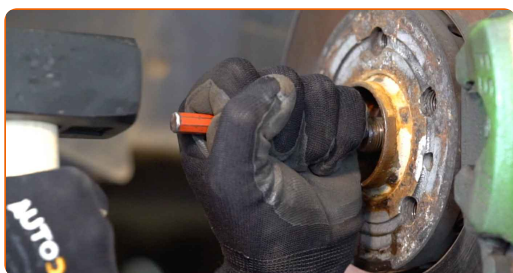
- 14 Unscrew the fastener connecting the drive shaft to the wheel hub. Use 12-point socket No.30.



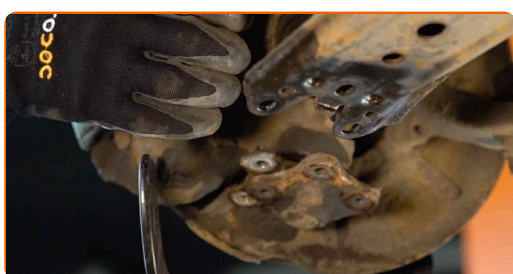
- 15 Treat the splines of the driveshaft CV joint. Use WD-40 spray.



- 16 Remove the drive shaft. Use a pin punch. Use a hammer.



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



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



- 19** Remove the fastening bolt.



- 20** Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber.



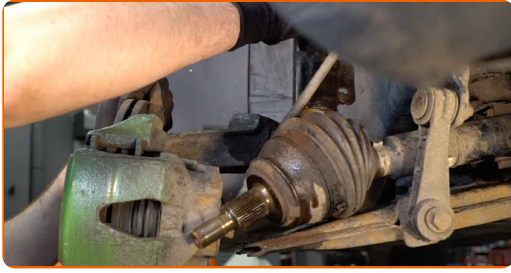
- 21** Lower the hydraulic transmission jack by 10-15 cm.

**AUTODOC recommends:**

- VW New Beetle Hatchback (9C1, 1C1) – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.



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



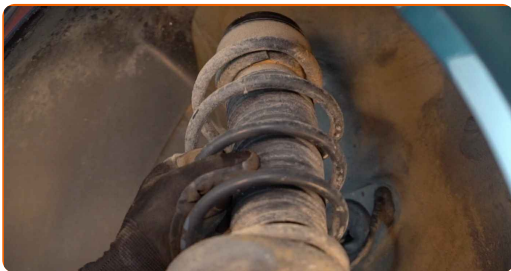
**23** Unscrew the top fastening of the shock strut mount.



**AUTODOC recommends:**

- VW New Beetle Hatchback (9C1, 1C1) – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

**24** Remove the suspension strut.

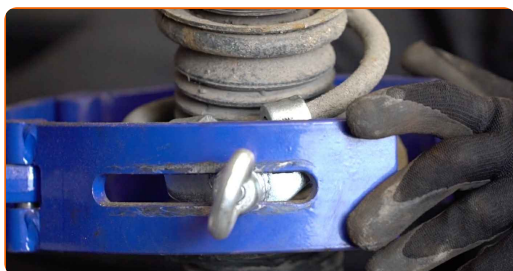


**25** Set the shock absorber strut on the spring compressor tool.

Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1). 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.

**26** Compress the spring.



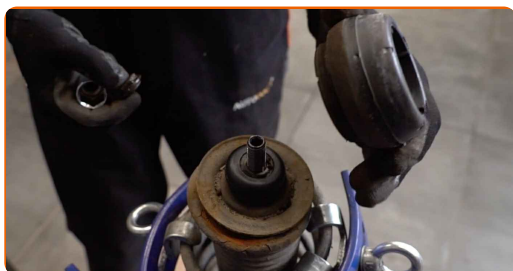
**27** Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



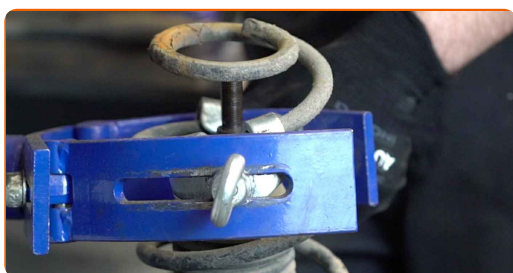
**28** Remove the strut piston rod nut. Use a drive socket #21. Use HEX No.H7. Use a ratchet wrench.



**29** Remove the top strut mount.



**30** Release the coil spring.



**31** Remove the spring.



**32** Remove the shock absorber dust cap and the bump stop.

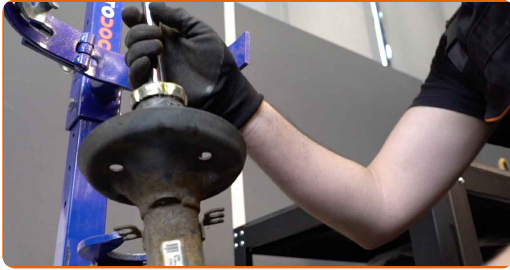


Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1).  
Professionals recommend:

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

**33**

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



Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1).  
AUTODOC experts recommend:

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

**34**

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



**35**

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

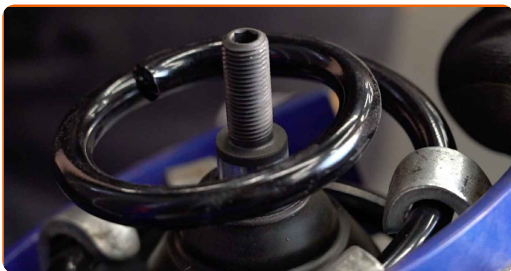


**36**

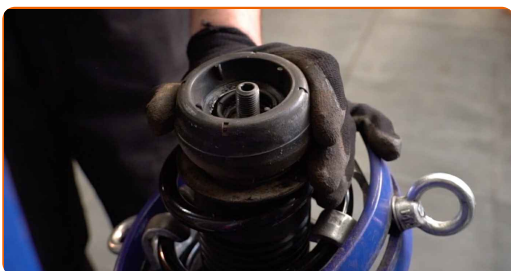
Install the spring on the shock absorber.



**37** Compress the spring.



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



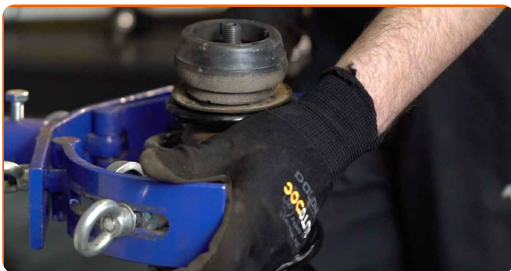
**39** Tighten the shock strut piston rod nut. Use a drive socket #21. Use HEX No.H7. Use a torque wrench. Tighten it to 60 Nm torque.



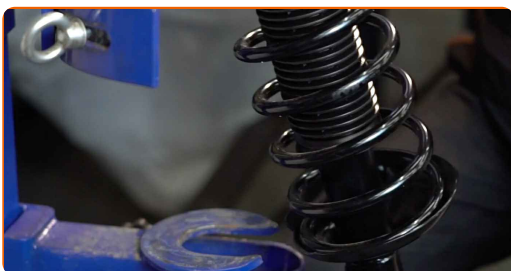
Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1).  
AUTODOC recommends:

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

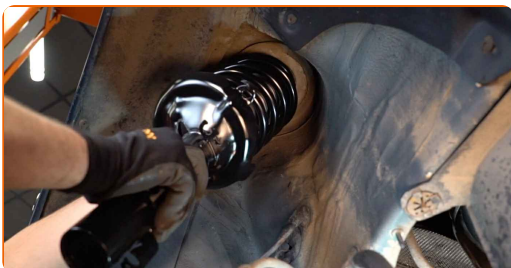
**40** Decompress the spring.



**41** Remove the assembled shock strut.



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



**43** Screw the top fastening of the shock strut mount. Use a drive socket #13. Do not tighten it.

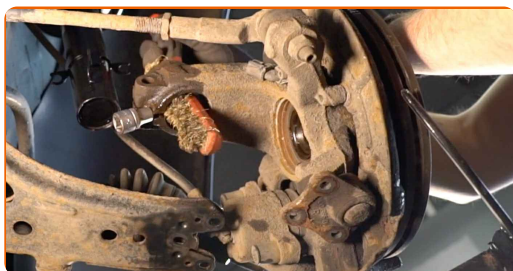


**AUTODOC recommends:**

- Important! Hold the suspension strut while screwing in the fastening bolts. VW New Beetle Hatchback (9C1, 1C1)

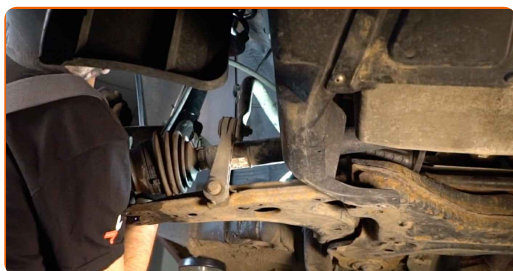
44

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



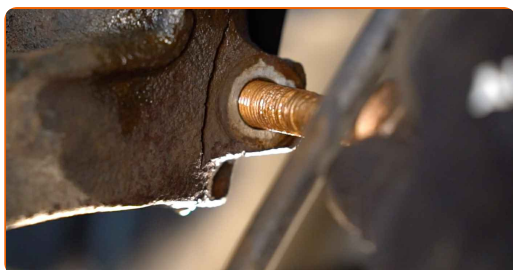
45

Fix the shock absorber strut on the steering knuckle.



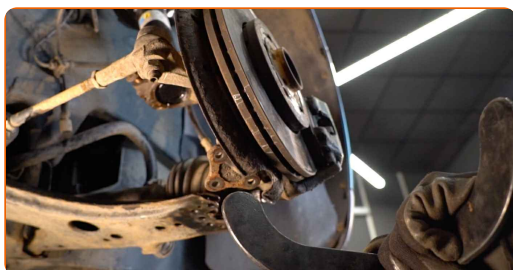
46

Install the fastening bolt.



47

Remove the support from under the steering knuckle.

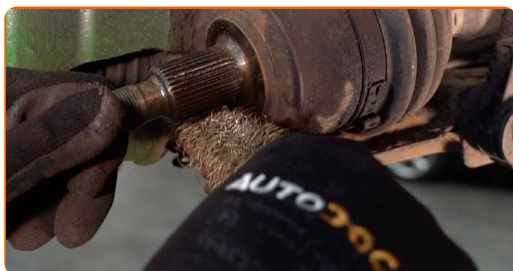


### AUTODOC recommends:

- Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

48

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

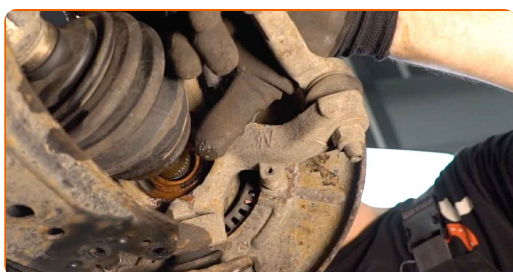


49

Treat the splines of the driveshaft CV joint. Use copper grease.

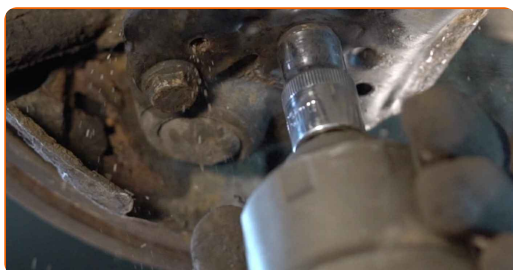
50

Mount the drive shaft into the wheel hub.



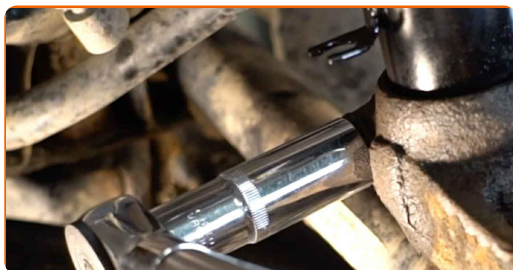
51

Screw the fasteners of the ball joint. Use a drive socket #13. Use a ratchet wrench.



52

Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a combination spanner #18. Use a torque wrench. Tighten it to 60 Nm torque.+90°





AUTODOC recommends:

- Important! Be sure to use new fasteners.

53

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



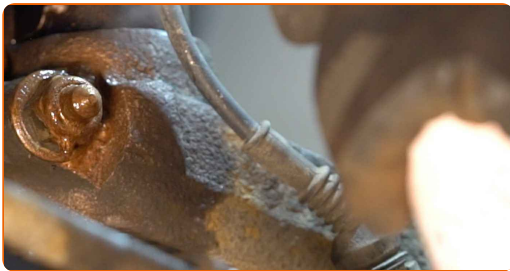
54

Screw the nut of the drive shaft. Use 12-point socket No.30. Use a tap wrench.



55

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



56

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



**57**

Clean the brake disk surface. Use a brake cleaner.



**AUTODOC recommends:**

- Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1). After applying the spray, wait a few minutes.

**58**

Install the wheel.

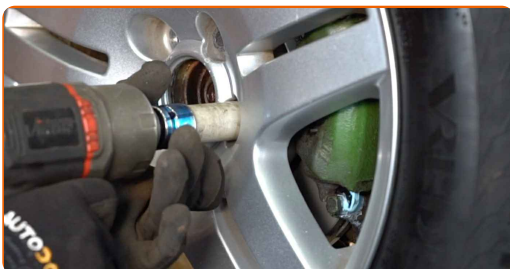


**Replacement: suspension strut – VW New Beetle Hatchback (9C1, 1C1). Tip:**

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

**59**

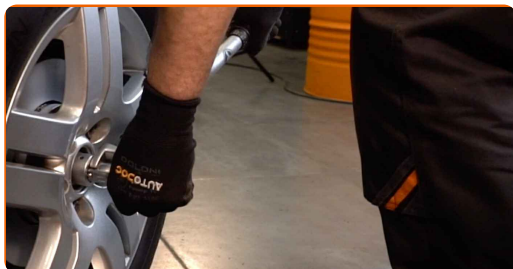
Screw in the wheel bolts. Use wheel impact socket #17.



**60**

Lower the car.

**61** Tighten the drive shaft nut. Use 12-point socket No.30. Use a torque wrench. Tighten it to 200 Nm torque.+90°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

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



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



64

Remove the jacks and chocks.



65

Remove the fender protection cover.

66

Close the hood.

**WELL DONE!** 

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