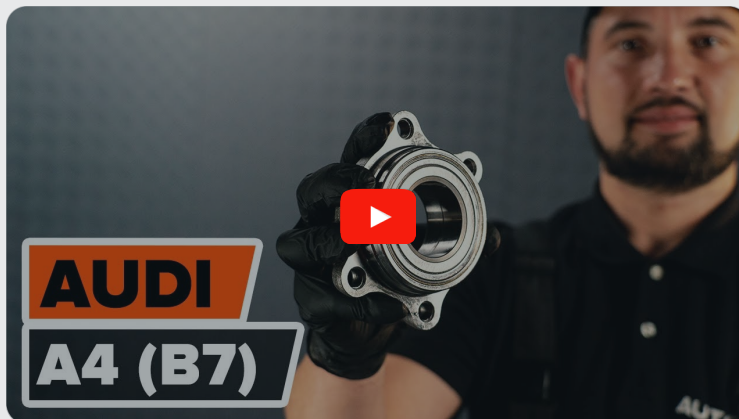




How to change front
wheel bearing on **AUDI**
A8 D3 (4E2, 4E8) –
replacement guide

SIMILAR VIDEO TUTORIAL



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

Important!

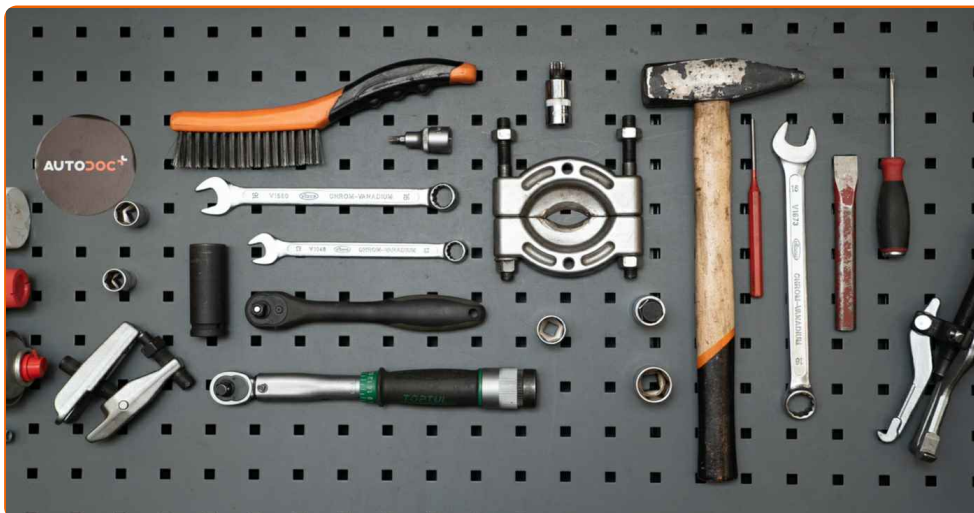
This replacement procedure can be used for:

AUDI A8 D3 (4E2, 4E8) 4.2 quattro, AUDI A8 D3 (4E2, 4E8) 3.7 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: AUDI A4 B7 Saloon (8EC) 2.0 TFSI

REPLACEMENT: WHEEL BEARING – AUDI A8 D3 (4E2, 4E8). TOOLS YOU MIGHT NEED:



- Wire brush
- Nylon cleaning brush
- WD-40 spray
- Electronic spray
- All-purpose cleaning spray
- Brake cleaner
- Sealant
- Copper grease
- Torque wrench
- Combination spanner #13
- Combination spanner #16
- Combination spanner #18
- Drive socket # 13
- Drive socket # 15
- Drive socket # 18
- Drive socket # 21
- XZN socket bit # 12
- HEX bit No.H17.
- Torx bit T30
- Wheel impact socket #17
- Bush and bearing driver set
- Ratchet wrench
- Tap wrench
- Hammer
- Pin punch
- Flat chisel
- Flat Screwdriver
- Crow bar
- Vice
- 3-Arm Gear Puller
- Ball joint puller
- Bearing separator
- Universal puller
- Hydraulic transmission jack
- Wheel chock

Buy tools

Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). AUTODOC recommends:

- Do not re-use the bearing assembly of your AUDI A8 D3 (4E2, 4E8) saloon car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- All work should be done with the engine stopped.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Secure the wheels with chocks.



2

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



3

Loosen the fastener of the driveshaft. Use HEX No.H17. Use a tap wrench.



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

5 Unscrew the wheel bolts.



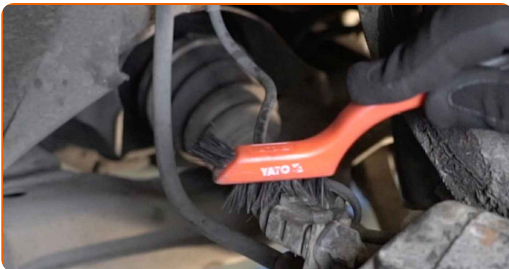
Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Tip:

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

6 Remove the wheel.

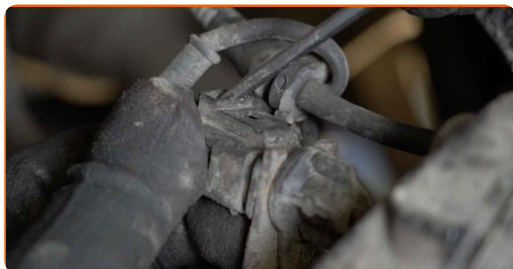


7 Clean the ABS sensor fastener. Use a nylon cleaning brush.



8

Disconnect the brake pad wear sensor plug. Use a flat screwdriver.

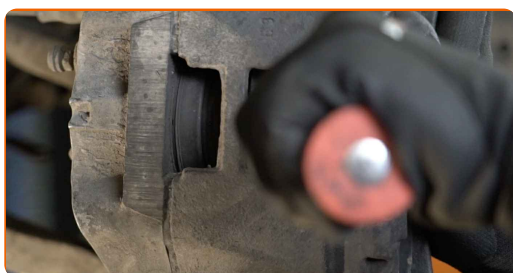


Please note!

- Some cars are not equipped with the brake pad wear sensor.

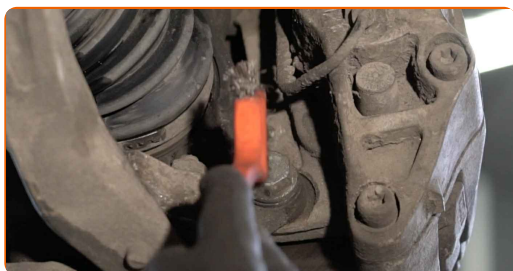
9

Spread the brake pads. Use a crowbar.



10

Clean the brake caliper bracket fasteners. Use a wire brush. Use WD-40 spray.



11

Unscrew the caliper bracket fastening. Use a drive socket #21. Use a ratchet wrench. Use a tap wrench.



12

Remove the brake caliper together with its bracket.



Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). AUTODOC experts recommend:

- Tie the caliper to the suspension or to the body with a wire without disconnecting from the brake hose to prevent depressurization of the brake system.
- Make sure that the brake caliper is not hanging on the brake hose.
- Don't press the brake pedal after the brake caliper has been removed. As a result, the piston can fall out from the brake cylinder, and brake fluid leakage and depressurization of the system may occur.
- Check the brake caliper bracket, brake caliper guide pins and boots. Clean them. Replace, if necessary.

13

Unscrew the brake disc fastening. Use Torx T30. Use a ratchet wrench.

14 Remove the brake disc.



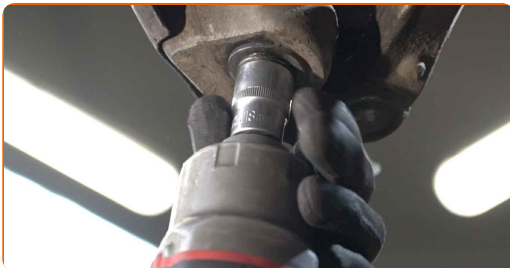
15 Clean all joints of the arm. Use a wire brush. Use WD-40 spray.



Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Tip from AUTODOC:

- After applying the spray, wait a few minutes.
- Wear protective goggles.
- Wear a respirator.

16 Unscrew the ball joint fastening to the steering knuckle. Use a drive socket #18. Use a tap wrench.



17 Unscrew the ball joint fastening to the steering knuckle. Use a combination spanner #18.



18 Disconnect the ball joint from the steering knuckle. Use a ball joint puller.



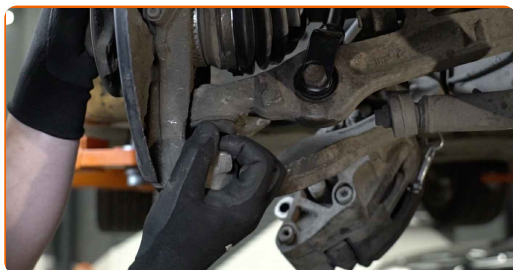
19 Detach the control arm.



20 Disconnect the ball joint from the steering knuckle. Use a ball joint puller.



21 Detach the control arm.



22 Remove the fastening bolt.



23 Clean the ABS sensor fastener. Use a nylon cleaning brush. Use all-purpose cleaning spray.



24 Disconnect the ABS sensor wiring. Use a flat screwdriver.



25 Detach the ABS sensor connector.



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



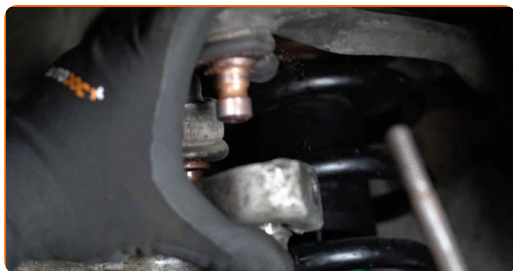
27 Unscrew the upper arm fastenings. Use a combination spanner #16.



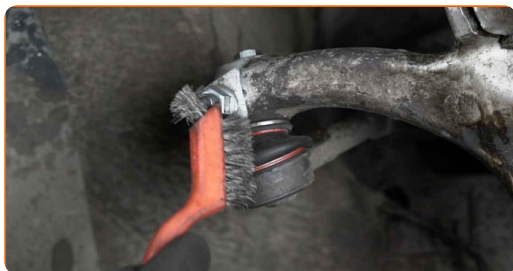
28 Remove the fastening bolt.



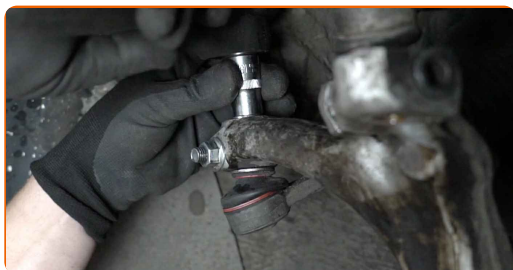
29 Remove the control arms.



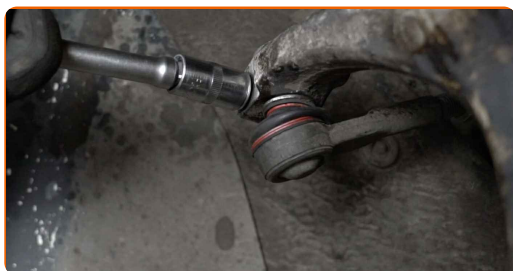
30 Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.



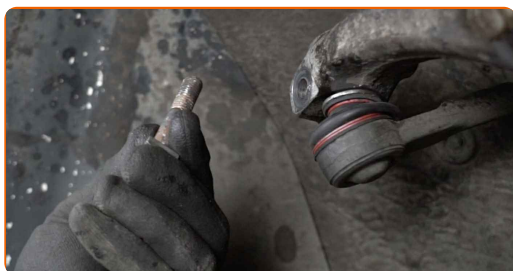
31 Loosen the tie rod end fastening bolt. Use a drive socket #13. Use a ratchet wrench.



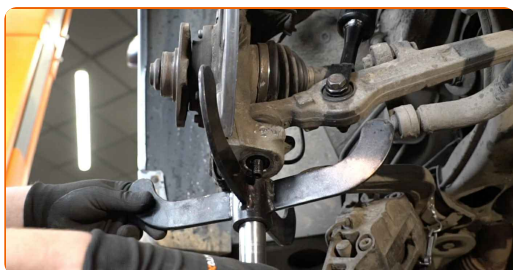
32 Unscrew the end fastening nut to the steering knuckle. Use a drive socket #15. Use a ratchet wrench.



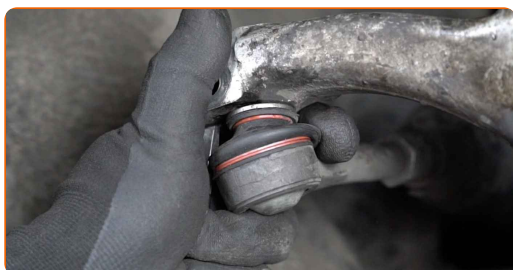
33 Remove the fastening bolt. Use a pin punch. Use a hammer.



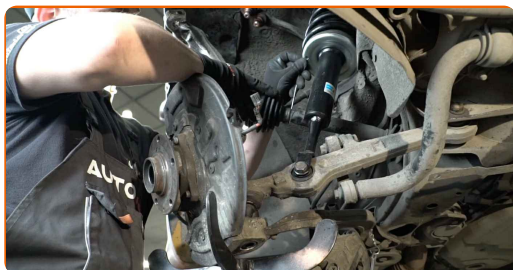
34 Prop up the steering knuckle. Use a hydraulic transmission jack.



35 Disconnect the tie rod end from the steering knuckle. Use a flat metal-working chisel. Use a hammer.



36 Remove the drive shaft.

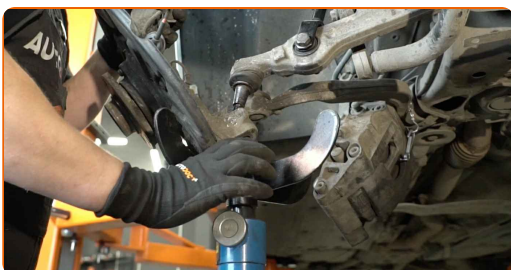


Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Tip from AUTODOC experts:

- Make sure that the drive shaft is not unloaded (when the car is jacked).

37

Remove the support from under the steering knuckle.

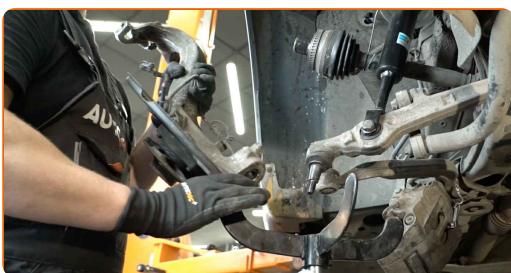


AUTODOC recommends:

- AUDI A8 D3 (4E2, 4E8) – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

38

Remove the steering knuckle together with the hub.

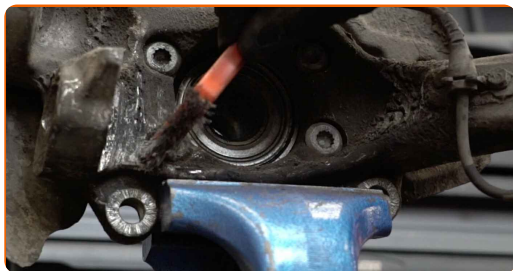


39

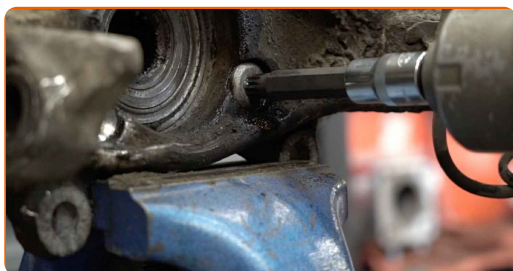
Grip the wheel hub together with the bearing in a vice.



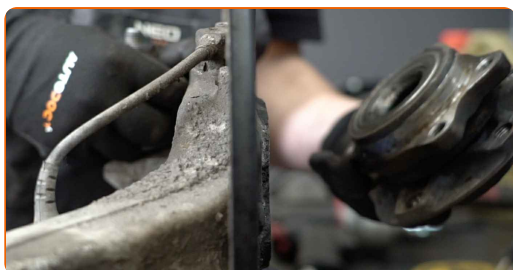
40 Clean the wheel hub fastener. Use a wire brush. Use WD-40 spray.



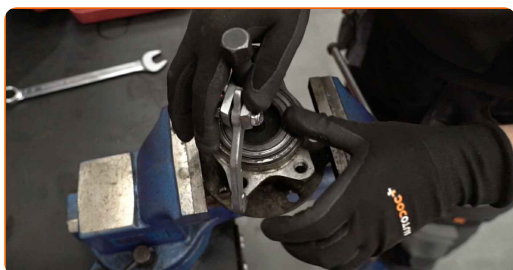
41 Unscrew the wheel hub axle nut. Use XZN #12. Use a ratchet wrench.



42 Remove the wheel hub from the steering knuckle.



43 Remove the hub bearing mounting. Use a universal puller.



44

Pull the bearing inner race out of the wheel hub. Use 3-Arm Gear Puller. Use a bearing separator.



45

Clean the hub bearing mounting seat. Use a wire brush. Use WD-40 spray.

46

Press a new bearing into the wheel hub. Use a bush and bearing driver set.



Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Tip:

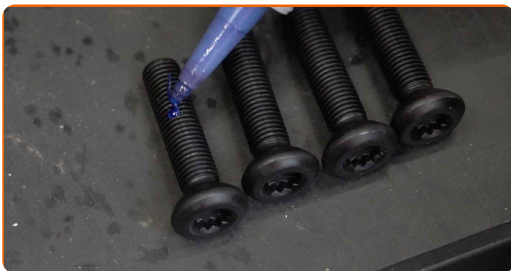
- Check to make sure the wheel hub bearing is positioned correctly. Avoid its misalignment.
- Stop pressing on the surface of the bearing immediately after it has been fitted into its mounting seat.

47

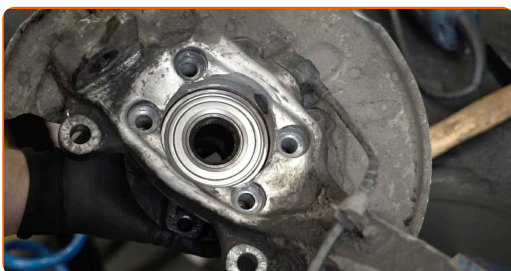
Clean the hub bearing mounting seat. Use a wire brush. Use WD-40 spray.



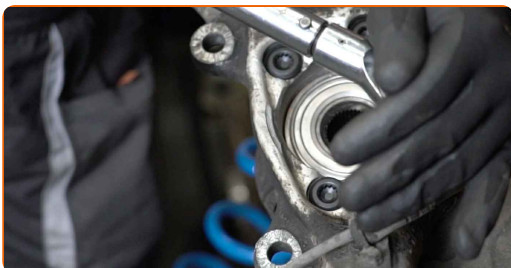
48 Treat the fastening bolts. Use a sealant.



49 Install the wheel hub on the steering knuckle.



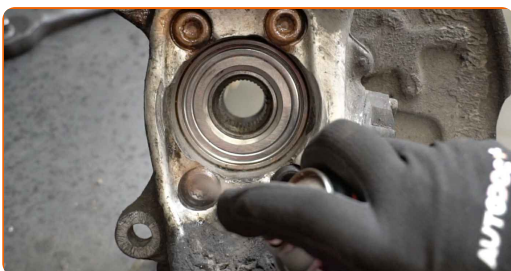
50 Tighten the hub. Use XZN #12. Use a torque wrench. Tighten it to 80 Nm torque.+90°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

51 Treat the fasteners of the wheel hub bearing. Use copper grease.



52

Release the vice and take out the wheel hub together with the bearing.

**53**

Treat the wheel hub mounting seat. Use a wire brush. Use WD-40 spray.

**54**

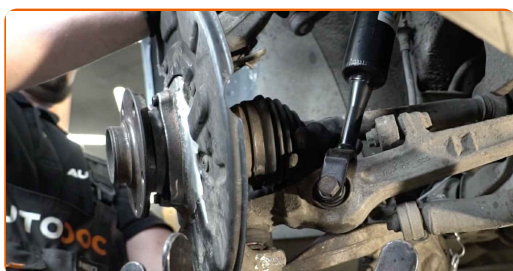
Install the steering knuckle with a hub in assembly.

**55**

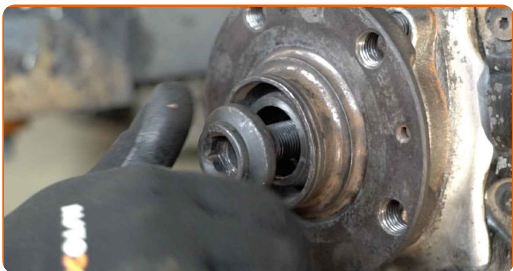
Prop up the steering knuckle. Use a hydraulic transmission jack.

**56**

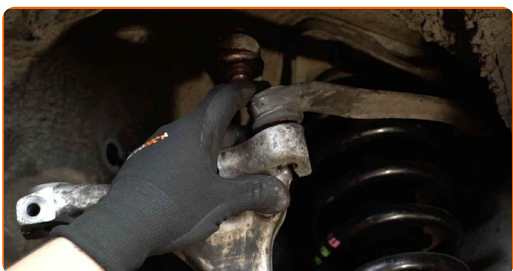
Install the drive shaft.



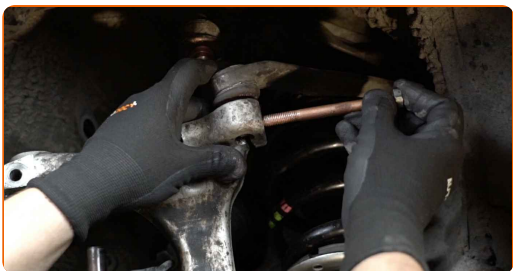
57 Install and tighten the drive shaft bolt. Use HEX No.H17. Use a tap wrench.



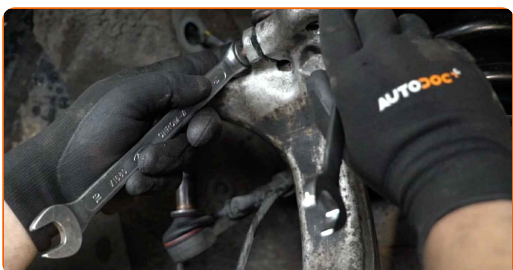
58 Install the control arms.



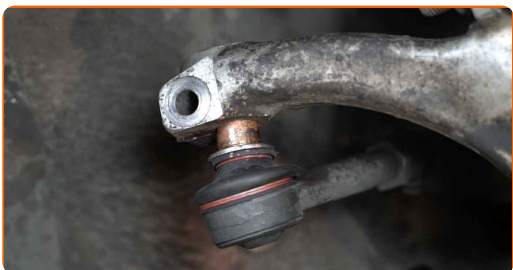
59 Install the fastening bolt.



60 Screw in the fasteners of the upper control arms. Use a combination spanner #16 (2 pieces).



61 Connect the tie rod end to the steering knuckle.



62 Install the fastening bolt.



63 Screw in the tie rod end fastening bolt. Use a combination spanner #13.



64 Screw on the fastening nut that connects the tie rod end to the steering knuckle. Use a drive socket #15. Use a ratchet wrench.



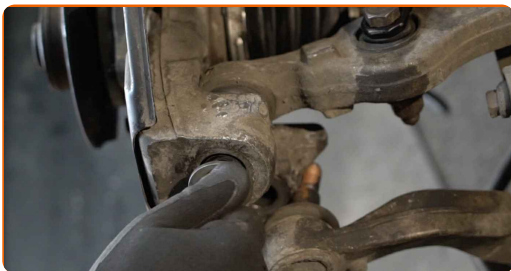
65 Remove the support from under the steering knuckle.



AUTODOC recommends:

- Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

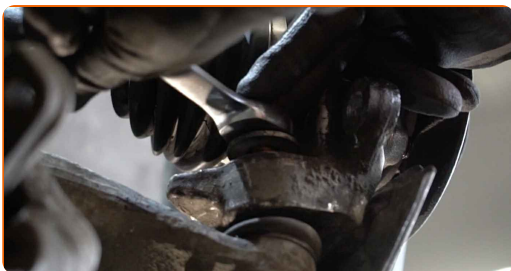
66 Attach the control arm.



67 Connect the ball joint to the steering knuckle.



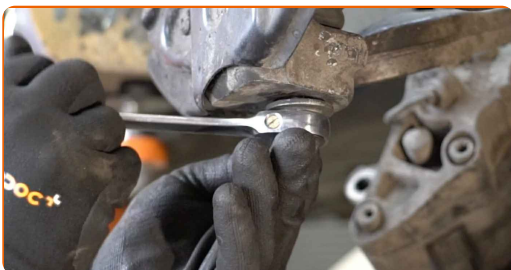
68 Screw the fasteners of the ball joint. Use a combination spanner #18.



69 Attach the control arm.

70 Connect the ball joint to the steering knuckle.

71 Screw the fasteners of the ball joint. Use a combination spanner #18.



72 Connect the ABS sensor wiring.



73 Attach the ABS sensor connector.



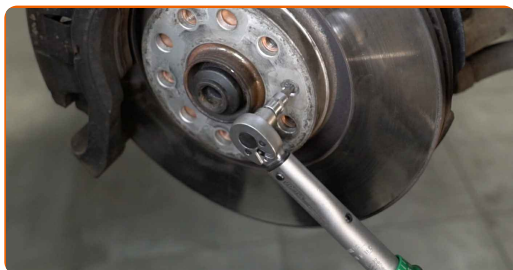
74 Clean the hub. Use a wire brush. Treat the contacting surface. Use copper grease.



75 Install the brake disc.



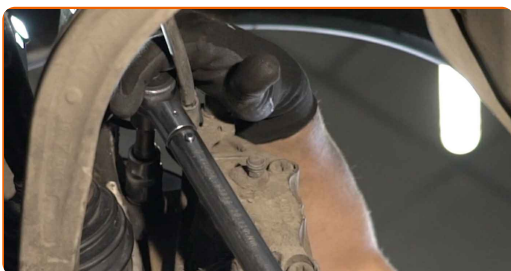
76 Tighten the brake disc fastening. Use Torx T30. Use a torque wrench. Tighten it to 5 Nm torque.



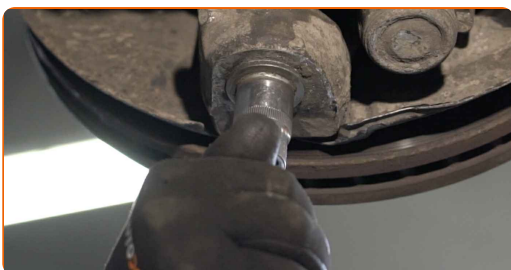
77 Install the brake caliper together with its bracket.



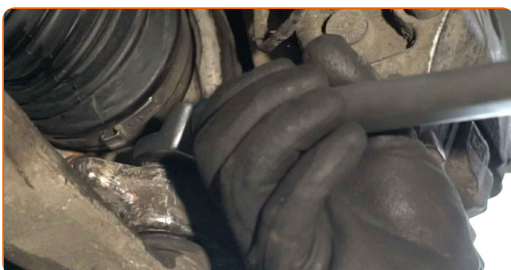
78 Tighten the brake caliper bracket. Use a drive socket #21. Use a torque wrench. Tighten it to 190 Nm torque.



79 Tighten the ball joint fastener. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.



80 Tighten the ball joint fastener. Use a combination spanner #18. Use a torque wrench. Tighten it to 110 Nm torque.



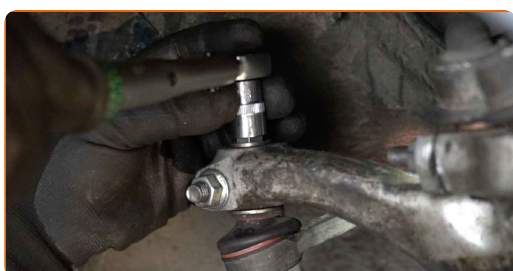
- 81** Treat the brake pad wear sensor plug. Use dielectric grease. The spray will protect the electrical contacts from corrosion, oxidation, and will reduce the contact resistance.



- 82** Connect the brake pad wear sensor plug.



- 83** Tighten the tie rod end fastening bolt. Use a drive socket #13. Use a torque wrench. Tighten it to 7 nm torque.



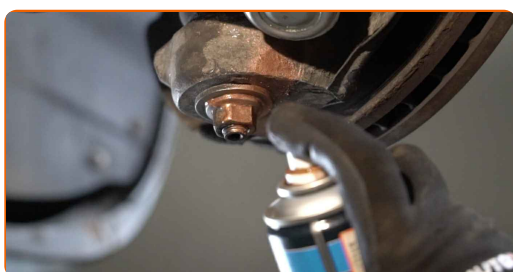
- 84** Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a drive socket #15. Use a torque wrench. Tighten it to 45 nm torque.



- 85** Tighten the upper arm fastenings. Use a combination spanner #16. Use a drive socket #16. Use a torque wrench. Tighten it to 40 nm torque.



- 86** Treat all joints of the arm. Treat the fasteners of the ball joint. Treat the fastener connecting the tie rod end to the steering knuckle. Use copper grease.



- 87** Clean the wheel rim mounting seat. Use a wire brush.



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



89

Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

- Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). After applying the spray, wait a few minutes.

90

Install the wheel.



Replacement: wheel bearing – AUDI A8 D3 (4E2, 4E8). Tip from AUTODOC:

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

91

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



92

Lower the car.

93

Tighten the bolt connecting the drive shaft to the wheel hub. Use HEX No.H17. Use a torque wrench. Tighten it to 115 Nm torque.+180°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

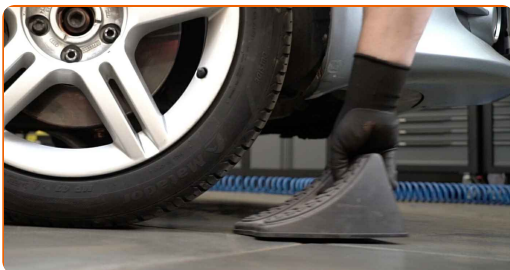
94

Tighten the wheel bolts using a criss-cross pattern. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 Nm torque.



95

Remove the jacks and chocks.



WELL DONE! 

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