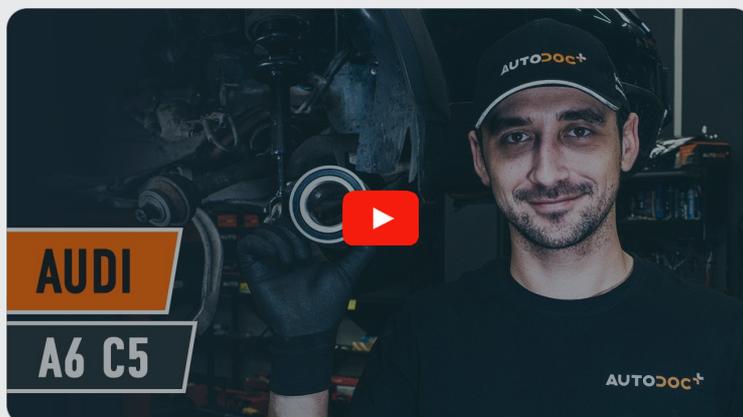




How to change front  
wheel bearing on **VW**  
**Phaeton (3D1, 3D2, 3D3,**  
**3D4, 3D6, 3D7, 3D8, 3D9)**  
– replacement guide

## 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 Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9) 6.0 W12 4motion

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 A6 Avant (4B5, C5) 2.4

**REPLACEMENT: WHEEL BEARING – VW PHAETON  
(3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). TOOLS YOU  
MIGHT NEED:**



- Wire brush
- WD-40 spray
- Electronic spray
- Brake cleaner
- Copper grease
- Torque wrench
- Combination spanner #13
- Combination spanner #18
- Drive socket # 10
- Drive socket # 16
- Drive socket # 17
- Drive socket # 18
- Drive socket # 27
- HEX bit No.H8
- Wheel impact socket #17
- Ratchet wrench
- Bush and bearing driver set
- Ball joint puller
- Flat screwdriver
- Flat chisel
- Tap wrench
- Pin punch
- Hammer
- Crow bar
- Hydraulic transmission jack
- Wheel chock

**Buy tools**

**AUTODOC recommends:**

- Do not re-use the bearing assembly of your VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9) car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- Please note: all work on the car – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9) – should be done with the engine switched off.

**CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:**

**1** Open the bonnet. Unscrew the brake fluid reservoir cap.

**2** Secure the wheels with chocks.

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



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

**5** Unscrew the wheel bolts.



**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts. VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9)

6

Remove the wheel.



7

Disconnect the ABS sensor wiring. Use a flat screwdriver.



8

Detach the ABS sensor connector. Use a flat screwdriver.



9

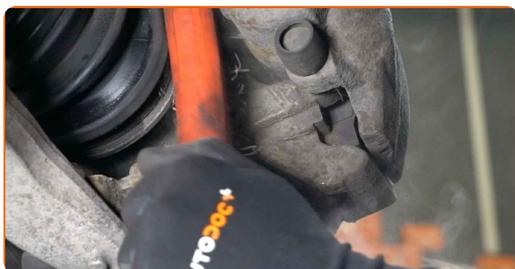
Loosen the fastener of the driveshaft. Use a drive socket #27. Use a ratchet wrench.



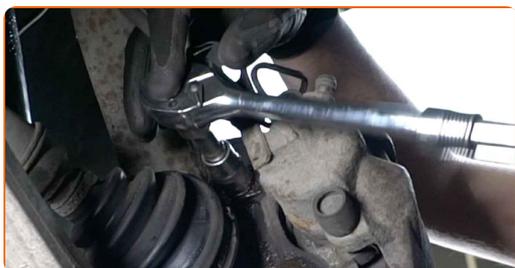
**10** Spread the brake pads. Use a crowbar.



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



**12** Unscrew the caliper bracket fastening. Use a drive socket #17. Use a ratchet wrench. Use a tap wrench.



**13** Remove the caliper bracket.



**14** Remove the fastening bolt. Use a drive socket #27.



**15** Remove the brake disc.



**16** Clean all joints of the arm. Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.



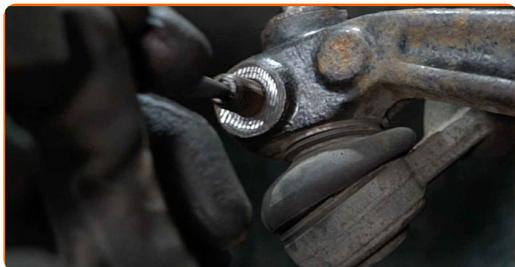
**17** Unscrew the upper arm fastenings. Use a drive socket #16. Use HEX No.H8. Use a ratchet wrench.



**18** Loosen the tie rod end fastening bolt. Use a drive socket #16. Use a ratchet wrench.



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



**20** Loosen the tie rod end fastening bolt. Use a combination spanner #13.



**21** Remove the fastening bolt.



**22** Spread the ears for the pinch bolt on the tie rod end. Use a flat metal-working chisel. Use a hammer.



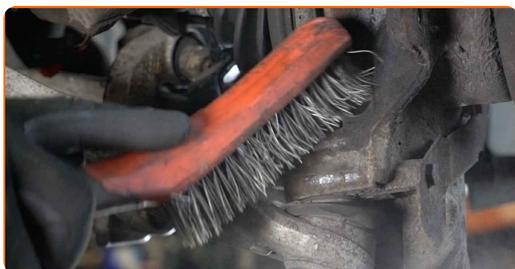
**23** Disconnect the tie rod end from the steering knuckle.



**24** Remove the fastening bolt.



**25** Clean the control arm fasteners. Use a wire brush. Use WD-40 spray.



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



**27** Clean the control arm fasteners. Use a wire brush. Use WD-40 spray.



**28** Unscrew the lower arm fastener. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



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



**30** Treat all joints of the arm. Use WD-40 spray.

**31** Disconnect the ball joint from the steering knuckle. Use a ball joint puller. Use a crowbar.



**32** Detach the driveshaft from the steering knuckle.



Replacement: wheel bearing – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). Tip from AUTODOC:

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

33

Remove the support from under the steering knuckle.

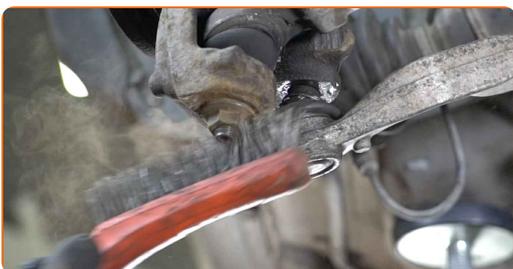


AUTODOC recommends:

- Replacement: wheel bearing – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

34

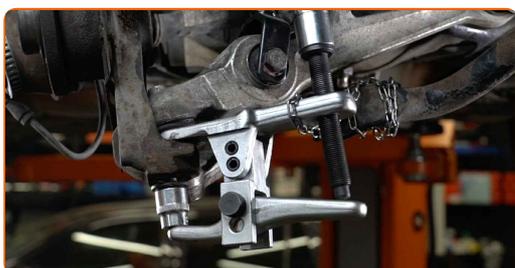
Clean the control arm fasteners. Use a wire brush. Use WD-40 spray.



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



**36** Disconnect the ball joint from the steering knuckle. Use a ball joint puller. Use a crowbar.



**37** Remove the steering knuckle together with the hub.



**38** Remove the control arms.

**39** Clean the fastener of the steering knuckle dust shield. Use a wire brush. Use WD-40 spray.



40

Unscrew the fastener of the steering knuckle dust shield. Use a drive socket #10. Use a ratchet wrench.



41

Remove the wheel hub from the steering knuckle. Use a bush and bearing driver set.



42

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

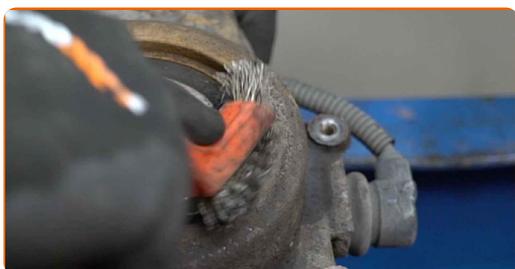
43

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



44

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



45

Press the new bearing in the steering knuckle. Use a bush and bearing driver set.

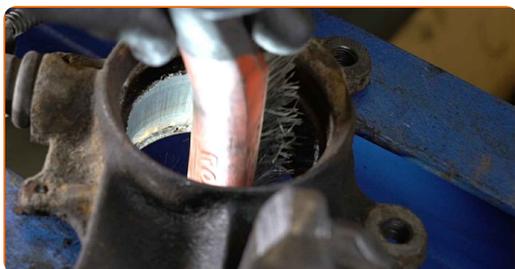


Replacement: wheel bearing – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). Tip:

- 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.

46

Clean the hub. Use WD-40 spray.



47

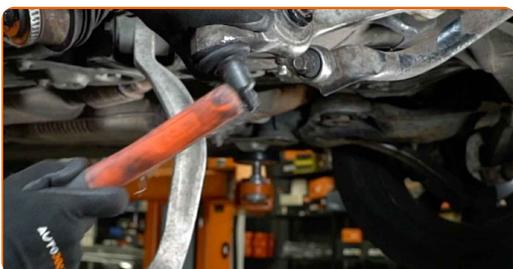
Install the wheel hub on the steering knuckle. Use a bush and bearing driver set.



- 48 Tighten the fastener of the steering knuckle dust shield. Use a drive socket #10. Use a torque wrench. Tighten it to 4 Nm torque.



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



- 50 Install the steering knuckle assembled with the wheel hub.



- 51 Install the control arms.



- 52 Install the drive shaft.



- 53** Tighten the lower arm fastener. Use a combination spanner #18. Use a torque wrench. Tighten it to 70 Nm torque.+180°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

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



- 55** Connect the tie rod end to the steering knuckle.



- 56** Install the fastening bolt.



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



**58** Install the fastening bolt.

**59** Screw in the tie rod end fastening bolt. Use a drive socket #16. Use a ratchet wrench.



**60** Install the fastening bolt.

**61** Screw in the fasteners of the upper control arms. Use a drive socket #16. Use HEX No.H8. Use a ratchet wrench.



**62** Tighten the upper arm fastenings. Use a drive socket #16. Use HEX No.H8. Use a torque wrench. Tighten it to 40 Nm torque.



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



**64** Install the brake disc.



**65** Connect the ball joint to the steering knuckle.

**66** Tighten the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #18. Use a torque wrench. Tighten it to 100 Nm torque.



**67** Connect the ball joint to the steering knuckle.

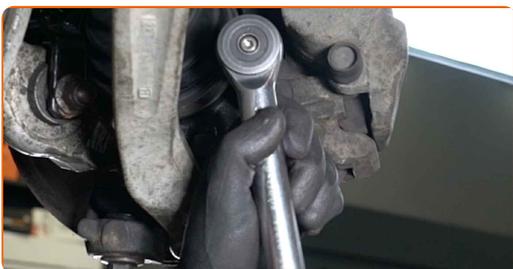
**68** Tighten the fastener connecting the ball joint to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.



**69** Install the brake caliper bracket.



**70** Tighten the brake caliper bracket. Use a drive socket #17. Use a torque wrench. Tighten it to 130 Nm torque.



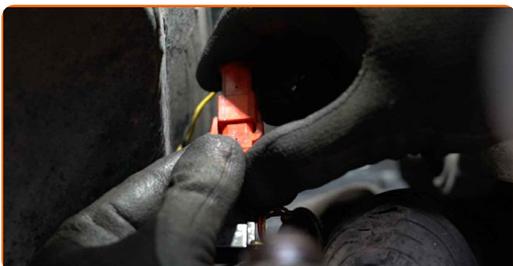
**71** Connect the ABS sensor wiring. Use a crowbar.



**72** Treat the ABS sensor connector. Use dielectric grease.



**73** Attach the ABS sensor connector.



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



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



- 76 Clean the brake disk surface. Use a brake cleaner.



**AUTODOC recommends:**

- Replacement: wheel bearing – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). After applying the spray, wait a few minutes.

**77** Install the wheel.



**AUTODOC recommends:**

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9)

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



**79** Lower the car.

**80** Tighten the bolt connecting the drive shaft to the wheel hub. Use a drive socket #27. Use a torque wrench. Tighten it to 115 Nm torque. +180°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

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



**82** Remove the jacks and chocks.



**Replacement: wheel bearing – VW Phaeton (3D1, 3D2, 3D3, 3D4, 3D6, 3D7, 3D8, 3D9). Professionals recommend:**

- Without starting the engine, press the brake pedal several times until you feel significant resistance.

**83** Tighten the brake fluid reservoir cap. Close the hood.

**WELL DONE!** 

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