



How to change front  
wheel bearing on **BMW**  
**E39** – replacement guide

## VIDEO TUTORIAL



### **ⓘ Important!**

This replacement procedure can be used for:

BMW 5 Saloon (E39) 520i 2.0, BMW 5 Saloon (E39) 525tds 2.5, BMW 5 Saloon (E39) 523i 2.5, BMW 5 Saloon (E39) 528i 2.8, BMW 5 Saloon (E39) 540i 4.4, BMW 5 Saloon (E39) 535i 3.5, BMW 5 Touring (E39) 520i 2.0, BMW 5 Touring (E39) 523i 2.5, BMW 5 Touring (E39) 540i 4.4, BMW 5 Saloon (E39) 525td 2.5, BMW 5 Touring (E39) 528i 2.8, BMW 5 Saloon (E39) 530d 3.0, BMW 5 Touring (E39) 530d 3.0, BMW 5 Touring (E39) 525tds 2.5, BMW Z8 Roadster (E52) 4.9, (+ 10)

The steps may slightly vary depending on the car design.

## REPLACEMENT: WHEEL BEARING – BMW E39. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- All-purpose cleaning spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- HEX bit no.H6.
- HEX bit no.H7.
- Drive socket # 18
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Hammer
- Impact screwdriver
- Rubber mallet
- Crow bar
- Wheel chock

**BUY TOOLS**

Replacement: wheel bearing – BMW E39. AUTODOC experts recommend:

- Do not re-use the bearing assembly of your BMW E39 car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- Warning! Shut down the engine before starting any work – BMW E39.

## CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Secure the wheels with chocks.



2

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



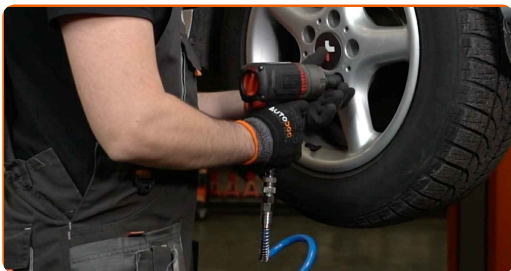
3

Raise the front of the car and secure on supports.



4

Unscrew the wheel bolts.

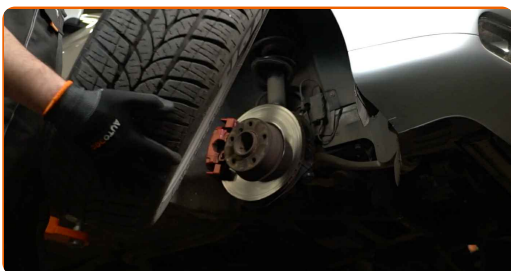


Replacement: wheel bearing – BMW E39. Tip:

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

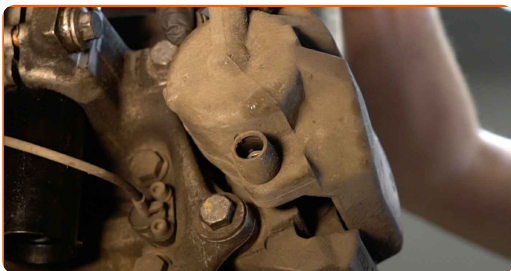
5

Remove the wheel.



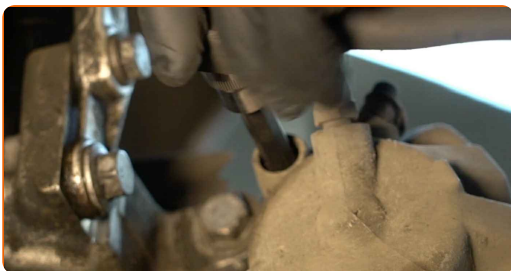
6

Remove the dust boot caps of the brake caliper guide pins. Use a crowbar.



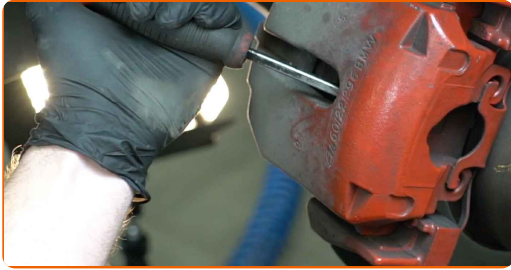
7

Unscrew the brake caliper fastening. Use HEX No.H7. Use a ratchet wrench.



**8**

Spread the brake pads. Use a crowbar.

**9**

Detach the brake caliper retaining spring. Use a crowbar.

**10**

Remove the brake caliper.



### Replacement: wheel bearing – BMW E39. AUTODOC recommends:

- 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.

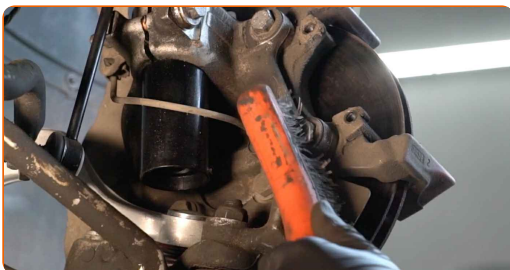
11

Remove the brake pads.



12

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



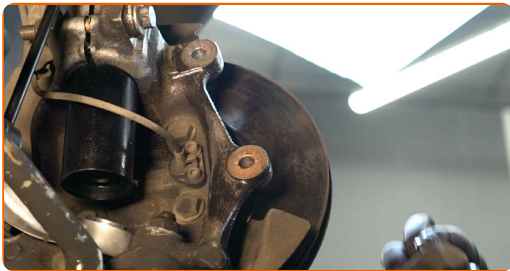
13

Unscrew the caliper bracket fastening. Use a drive socket #18. Use a tap wrench.



14

Remove the caliper bracket.



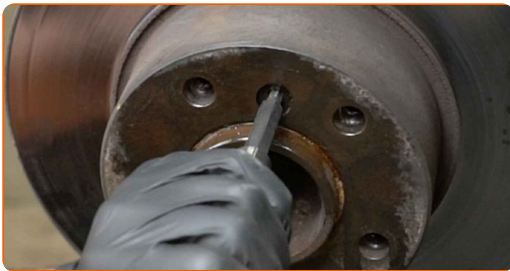
15

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



16

Unscrew the brake disc fastening. Use HEX No.H6. Use an impact screwdriver.



17

Remove the brake disc.

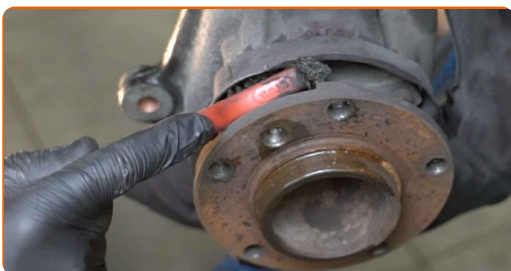


### Replacement: wheel bearing – BMW E39. Tip:

- If necessary, use a rubber mallet.

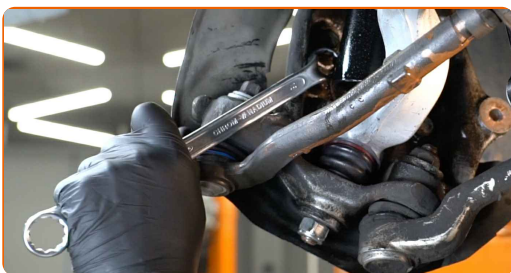
18

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



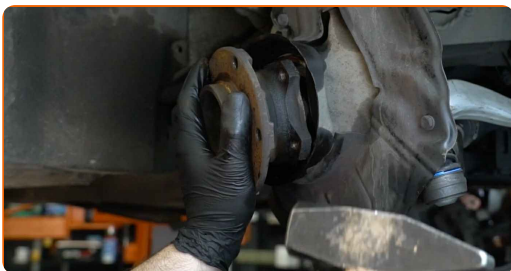
19

Unscrew the wheel hub axle nut. Use a combination spanner #18.



20

Remove the hub and the bearing together, since they are a sealed unit. Use a hammer.



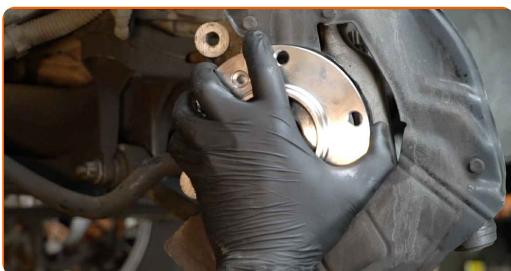
21

Clean the hub bearing mounting seat. Use a wire brush. Use all-purpose cleaning spray.



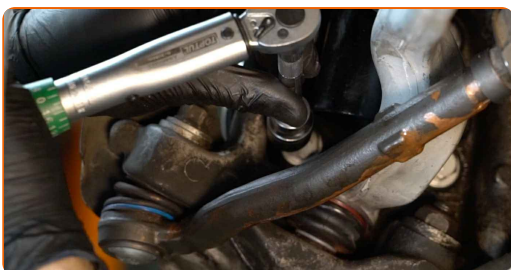
22

Install the new wheel hub with a bearing.



23

Tighten the hub. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.

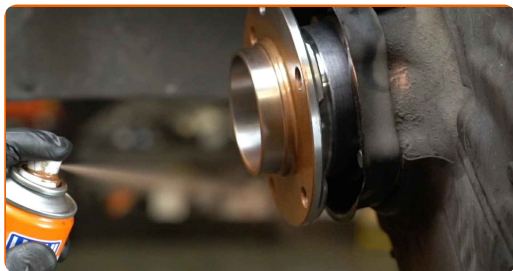


Replacement: wheel bearing – BMW E39. Tip from AUTODOC:

- The wheel bearing unit must not tilt on the axle pin.

24

Treat the hub where it contacts the brake disk. Use copper grease.



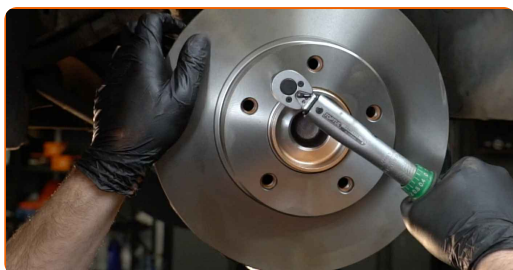
25

Install the brake disc.



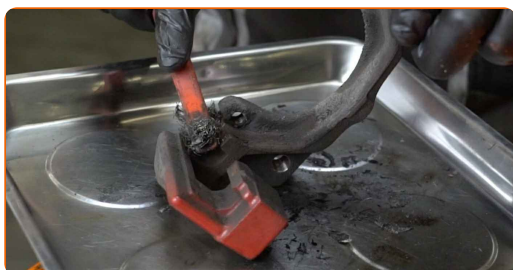
26

Tighten the brake disc fastening. Use HEX No.H6. Use a torque wrench. Tighten it to 16 Nm torque.



27

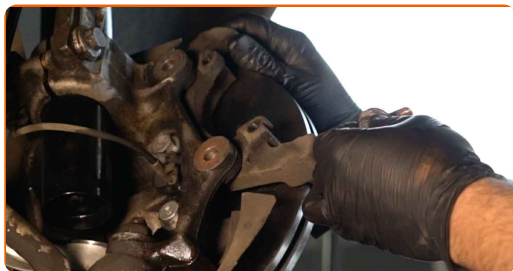
Clean the brake caliper bracket from dirt and dust. Use a brake cleaner.



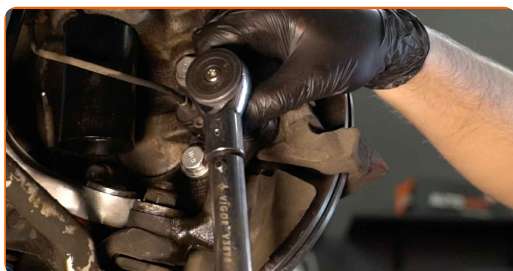
### AUTODOC recommends:

- Replacement: wheel bearing – BMW E39. After applying the spray, wait a few minutes.

**28** Install the brake caliper bracket.



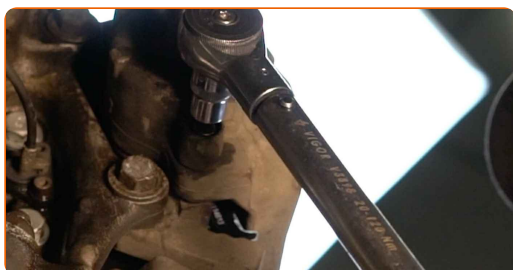
**29** Tighten the brake caliper bracket. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.



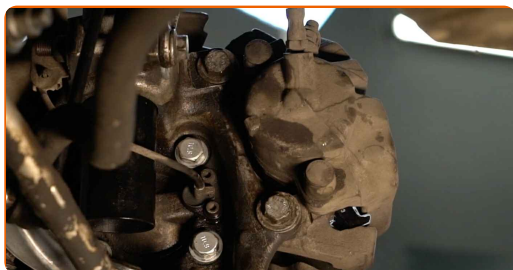
**30** Install the brake pads.



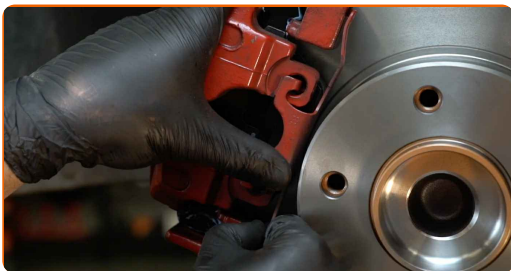
**31** Install the brake caliper and fix it. Use HEX No.H7. Use a torque wrench. Tighten it to 30 Nm torque.



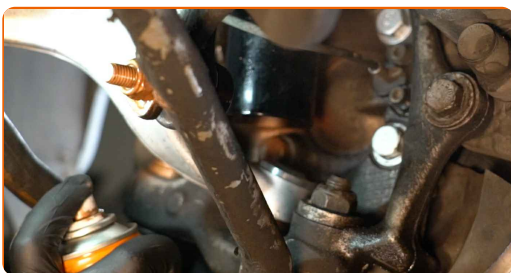
**32** Install the dust boot caps of the brake caliper guide pins.



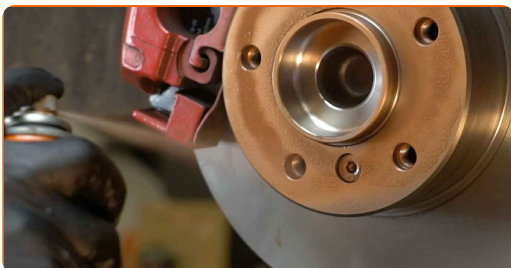
33 Install the brake caliper retaining spring.



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



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



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



Replacement: wheel bearing – BMW E39. Tip from AUTODOC:

- After applying the spray, wait a few minutes.

37 Install the wheel.



### AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. BMW E39

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



39 Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 Nm torque.



### AUTODOC recommends:

- BMW E39 – Without starting the engine, press the brake pedal several times until it feels firm.

40

Remove the jacks and chocks.



**WELL DONE!** 

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