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How to change front wheel bearing on **BMW E90** – replacement guide







#### **VIDEO TUTORIAL**



### (i) Important!

This replacement procedure can be used for:

BMW 3 Touring (E91) 325i 3.0, BMW 3 Touring (E91) 318d 2.0, BMW 3 Saloon (E90) 318d 2.0, BMW 1 Coupe (E82) M, BMW 3 Touring (E91) 318i 2.0, BMW 3 Touring (E91) 316d 2.0, BMW Z4 Roadster (E89) sDrive 20 i, BMW Z4 Roadster (E89) sDrive 28 i, BMW X1 (E84) sDrive 20 i, BMW 1 Coupe (E82) 118d 2.0, BMW 3 Coupe (E92) 318i 2.0, BMW 3 Convertible (E93) 318i 2.0, BMW 3 Convertible (E93) 325d 3.0, BMW 1 Hatchback (E81) 116i 1.6, BMW 1 Hatchback (E81) 120d 2.0, (+ 97)

The steps may slightly vary depending on the car design.

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### REPLACEMENT: WHEEL BEARING – BMW E90. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Sealant
- Combination spanner #18
- Drive socket # 18
- HEX bit no.H6.

- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Rubber mallet
- Wheel chock

**BUY TOOLS** 

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#### **AUTODOC** recommends:

- Do not re-use the bearing assembly of your BMW E90 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.

# REPLACEMENT: WHEEL BEARING – BMW E90. RECOMMENDED SEQUENCE OF STEPS:

Secure the wheels with chocks.



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



Raise the front of the car and secure on supports.

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4 Unscrew the wheel bolts.



#### AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
  BMW E90
- Remove the wheel.



- 6 Clean the brake caliper bracket fasteners. Use a wire brush. Use WD-40 spray.
- Unscrew the caliper bracket fastening. Use a drive socket #18. Use a tap wrench. Use a ratchet wrench.



Remove the fastening bolts (2 pieces).

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Spread the brake pads. Use a crowbar.



Remove the brake caliper together with its bracket.



#### Replacement: wheel bearing – BMW E90. Professionals 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.

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

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Unscrew the brake disc fastening. Use HEX No.H6. Use a ratchet wrench.



Remove the brake disc.



- Clean the wheel hub fastener. Use a wire brush. Use WD-40 spray.
- Unscrew the wheel hub axle nut. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



- 16 Remove the fastening bolts.
- Remove the hub and the bearing together, since they are a sealed unit.



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#### Replacement: wheel bearing – BMW E90. AUTODOC experts recommend:

• If necessary, use a rubber mallet.

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



- Treat the fastening bolts. Use a sealant.
- Install the new wheel hub with a bearing.



- 21 Install the fastening bolts.
- Tighten the hub. Use a combination spanner #18. Use a torque wrench. Tighten it to 110 nm torque.



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#### AUTODOC recommends:

• Important! Be sure to use new fasteners.





24 Install the brake disc.



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



Treat the fastening bolts. Use a sealant.

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Clean the mounting seats of the caliper and its bracket. Use a wire brush. Use WD-40 spray.



Install the brake caliper together with its bracket.



- Install the fastening bolts (2 pieces).
- Tighten the brake caliper bracket. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.



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



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Clean the brake disk surface. Use a brake cleaner.



#### AUTODOC recommends:

 Replacement: wheel bearing – BMW E90. After applying the spray, wait a few minutes.

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Install the wheel.



#### AUTODOC recommends:

 Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW E90

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



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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.



### Replacement: wheel bearing – BMW E90. Professionals recommend:

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

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Remove the jacks and chocks.





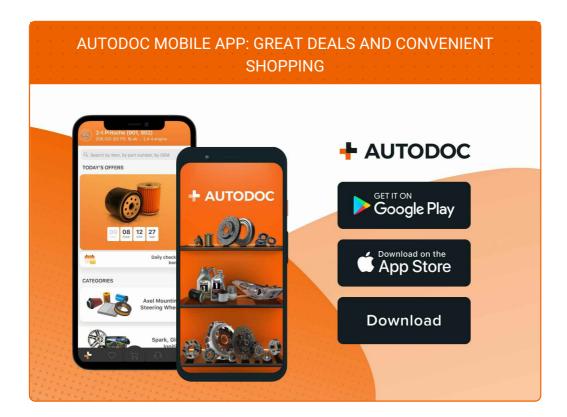
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