



How to change front  
brake caliper on **BMW X5**  
**E53** – replacement guide

## VIDEO TUTORIAL



### **i Important!**

This replacement procedure can be used for:

BMW 7 (E38) 740i / iL 4.0, BMW 7 (E38) 740i / iL 4.4, BMW 5 Saloon (E39) 540i 4.4, BMW 5 Saloon (E39) 535i 3.5, BMW 5 Touring (E39) 540i 4.4, BMW X5 (E53) 3.0 d, BMW 5 Saloon (E39) 520d 2.0, BMW 5 Touring (E39) 520d 2.0, BMW 5 Saloon (E39) 525d 2.5, BMW 5 Touring (E39) 525d 2.5, BMW 5 Saloon (E39) 520i 2.2, BMW 5 Saloon (E39) 530d 3.0, BMW 5 Touring (E39) 530d 3.0, BMW 5 Touring (E39) 520i 2.2, BMW 5 Saloon (E39) 525i 2.5, (+ 7)

The steps may slightly vary depending on the car design.

## REPLACEMENT: BRAKE CALIPER – BMW X5 E53. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Brake caliper guide pins grease
- Copper grease
- HEX bit no.H7.
- Flare nut spanner №11
- Flare nut spanner №14
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Crow bar
- Flat Screwdriver
- Brake hose clip
- Brake bleeder kit
- Wheel chock

[BUY TOOLS](#)

Replacement: brake caliper – BMW X5 E53. AUTODOC experts recommend:

- The replacement procedure is identical for the left and right brake calipers on the same axle.
- Warning! Shut down the engine before starting any work – BMW X5 E53.

## CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

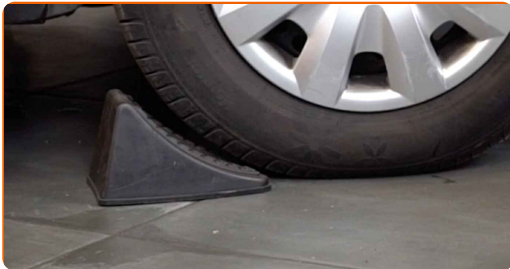
1

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.



Replacement: brake caliper – BMW X5 E53. Tip from AUTODOC experts:

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

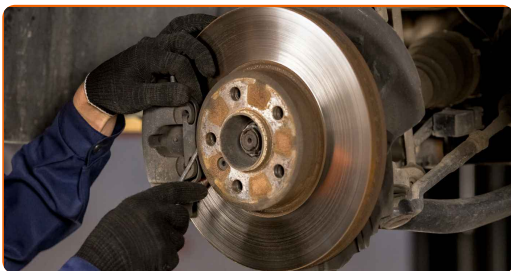
6

Remove the wheel.



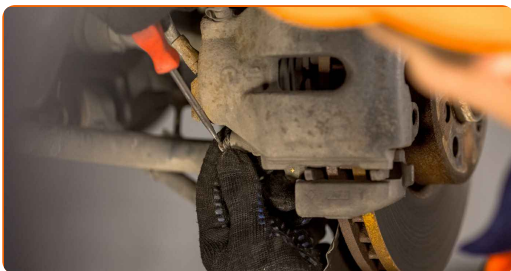
7

Detach the brake caliper retaining spring. Use a flat screwdriver.

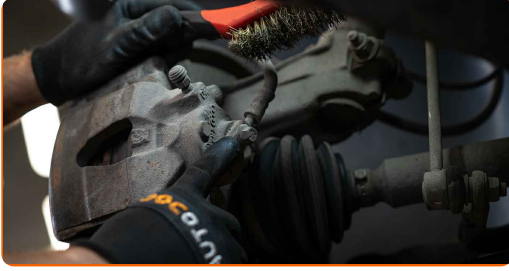


8

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



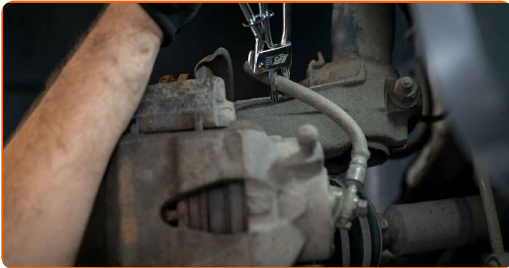
- 9 Clean the area where the brake hose is connected to the caliper, and the guide pins area. Use a brake cleaner.



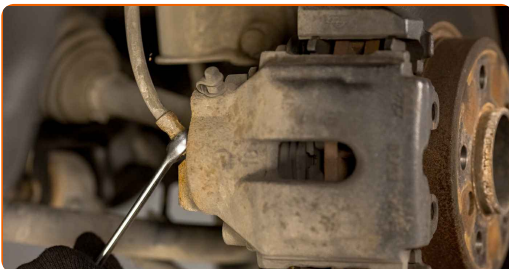
### AUTODOC recommends:

- Replacement: brake caliper – BMW X5 E53. After applying the spray, wait a few minutes.

- 10 Clamp the brake hose off using a brake hose clamp.

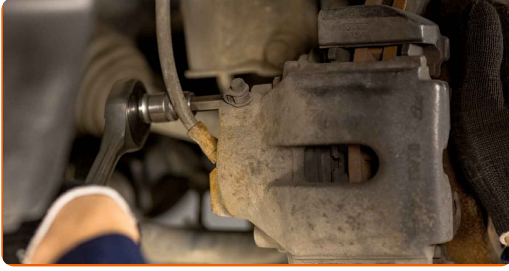


- 11 Loosen the brake hose fastening. Use a flare nut spanner #14.

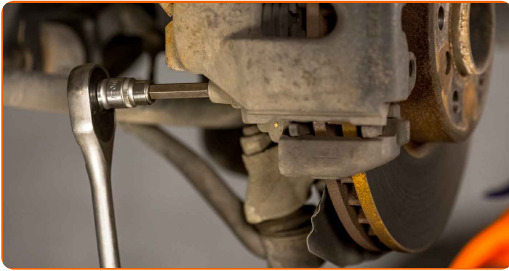


- 12 Clean the brake caliper fasteners. Use a wire brush. Use WD-40 spray.

**13.1** Unscrew the brake caliper fastening.

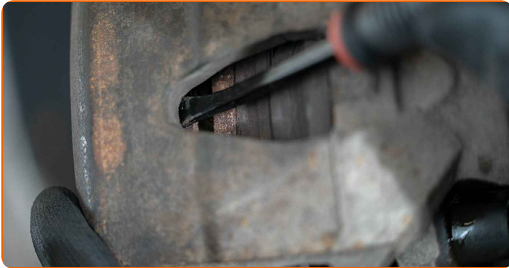


**13.2** Use HEX No.H7. Use a ratchet wrench.

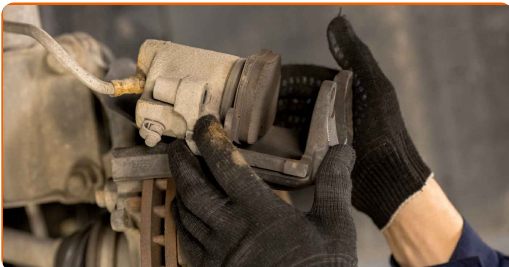


**14** Remove the guide pins from the brake caliper.

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



**16** Remove the brake caliper.



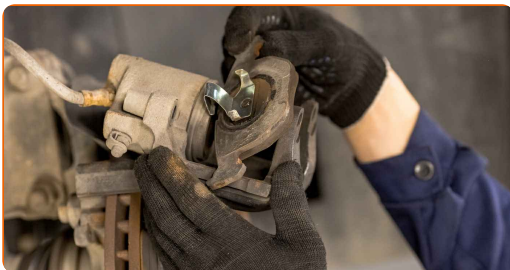


### Replacement: brake caliper – BMW X5 E53. Professionals recommend:

- When replacing the brake caliper, it is recommended to check the brake hose for damages and, if necessary, to replace it with a new one.
- When replacing a brake caliper it is recommended to replace brake pads, check the state of the brake discs and replace them with new ones if necessary.
- Check the brake caliper bracket, brake caliper guide pins and boots. Clean them. Replace, if necessary.
- 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.

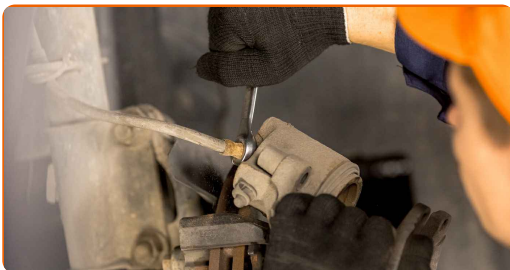
17

Remove the brake pads.



18

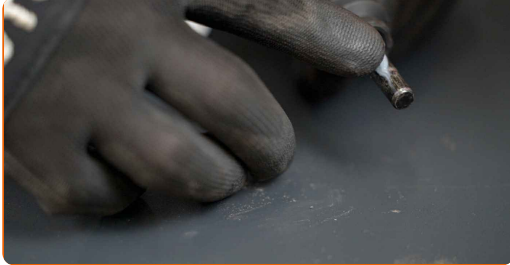
Unscrew the brake hose from the brake caliper. Use a flare nut spanner #14.





**19** Disconnect the brake hose.

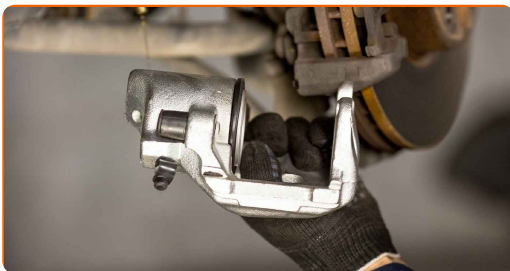
**20** Treat the brake hose. Use a brake cleaner.



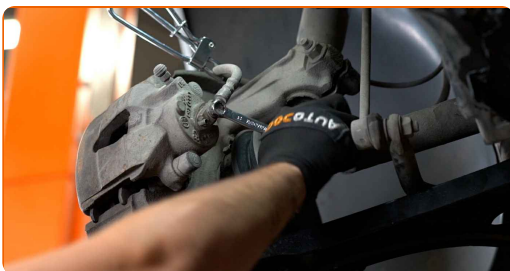
**Replacement: brake caliper – BMW X5 E53. AUTODOC recommends:**

- After applying the spray, wait a few minutes.

**21** Install and fix the brake hose into a new caliper.



**22** Tighten the fastener connecting the brake pipe to the brake caliper. Use a flare nut spanner #14. Use a torque wrench. Tighten it to 18 Nm torque.

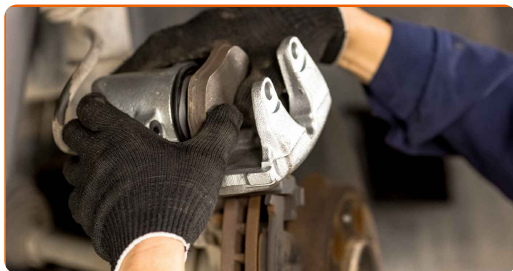


**23** Remove the brake hose clamp.

**24** Clean the brake caliper surface.

25

Install the brake pads.

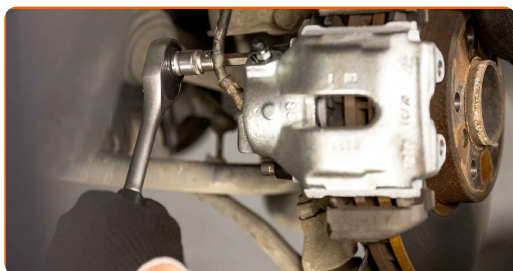


Replacement: brake caliper – BMW X5 E53. Tip from AUTODOC:

- If going to use the old brake pads, clean them.

26

Install the brake caliper and fix it.



27

Clean the brake caliper guide pins.

28

Lubricate guide pins with special brake grease.

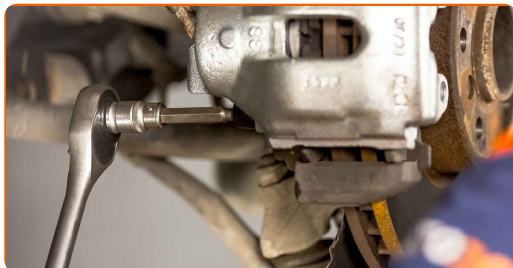


Replacement: brake caliper – BMW X5 E53. Tip:

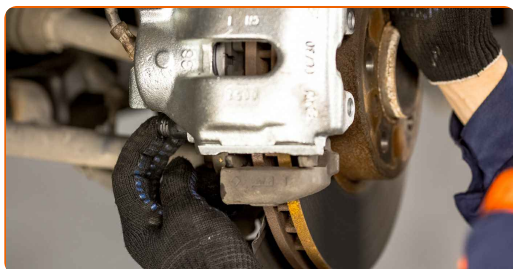
- If no new guide pins were supplied in a kit with the new brake calipers, use the old pins.

**29** Screw in the guide pins.

**30** Tighten the brake caliper fasteners. Use HEX No.H7. Use a torque wrench. Tighten it to 30 Nm torque.



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

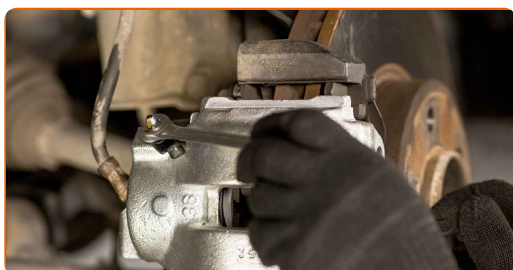


**32** Install the brake caliper retaining spring. Use a flat screwdriver.



**33** Connect the brake bleeder kit to the brake bleeder screw.

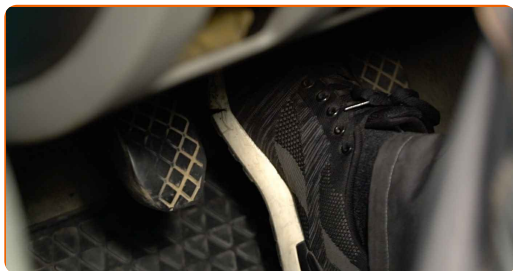
**34** Undo the brake bleeder screw. Use a flare nut spanner #11.



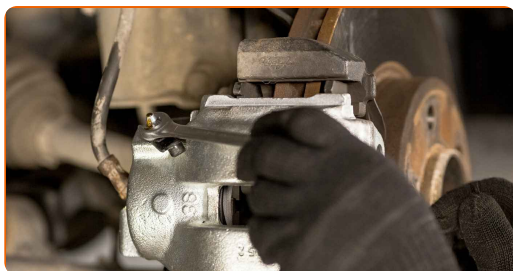
**35** Bleed the brake caliper system.



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

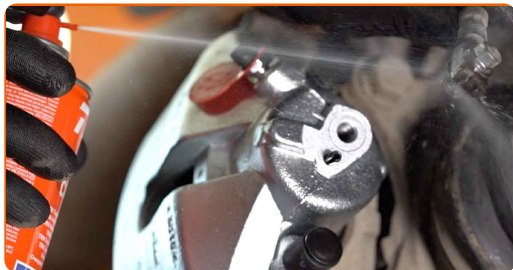


**37** Tighten the brake caliper bleed screw. Use a flare nut spanner #11. Use a torque wrench. Tighten it to 13 Nm torque.



**38** Disconnect the brake bleeder kit.

**39** Clean dirt from the brake hose bolt. Use a brake cleaner.



### AUTODOC recommends:

- Replacement: brake caliper – BMW X5 E53. After applying the spray, wait a few minutes.

40

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



41

Clean the brake disk surface. Use a brake cleaner.



### Replacement: brake caliper – BMW X5 E53. AUTODOC recommends:

- After applying the spray, wait a few minutes.

42

Install the wheel.





### AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. BMW X5 E53

43

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



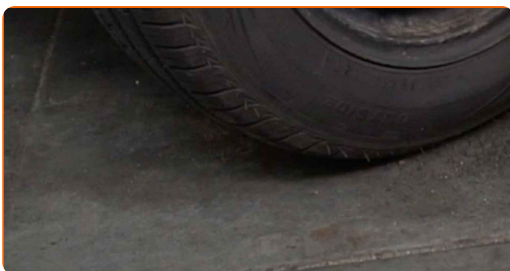
44

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 140 nm torque.



45

Remove the jacks and chocks.



### AUTODOC recommends:

- Important! Replacement: brake caliper – BMW X5 E53. Check the brake fluid level in the reservoir and top up if necessary.

46

Tighten the brake fluid reservoir cap. Close the hood.

**WELL DONE!** 

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