

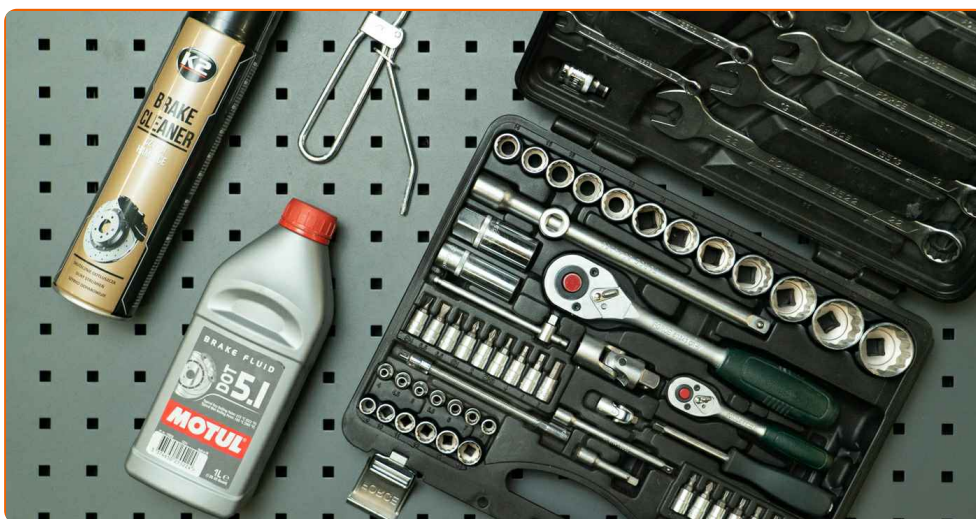


How to change brake  
caliper on a car –  
replacement tutorial

## VIDEO TUTORIAL



### PREPARE THE EQUIPMENT:



- a set of suitable tools
- brake cleaner
- the brake fluid recommended by the car manufacturer
- a clamp for the brake hose or for its fitting
- a brake bleeder
- jack
- a jack stand
- a wheel chock

**BUY TOOLS**

Possible reasons to replace the brake caliper:

- mechanical damage
- brake system overheating
- corrosion
- failure to replace the brake fluid in time

1

When you press the brake pedal, the piston rod of the master brake cylinder is pressed in



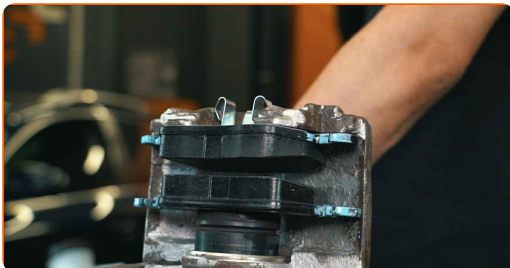
2

The brake fluid is supplied to the caliper and acts on its piston

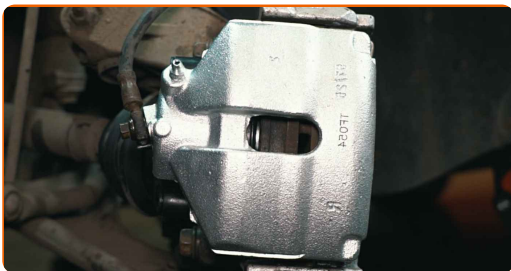


3

The piston presses the brake pads against the disc



4 As a result, braking occurs



5 Corrosion may hinder the piston movement, and even cause it to seize up



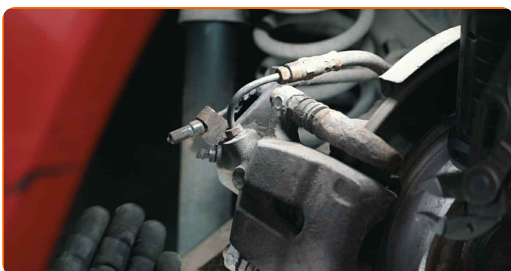
6 It can also be damaged as a result of destruction of the seal



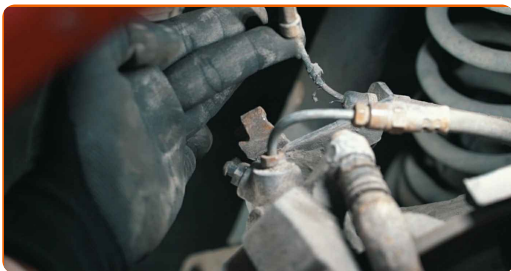
**Please note!**

- The principle of operation and replacement of most brake calipers is identical

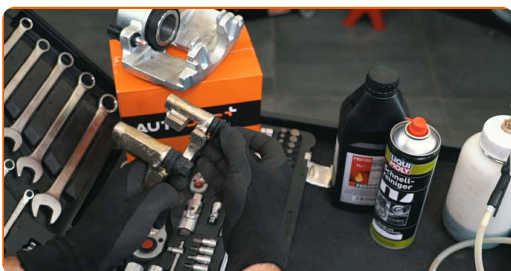
7 Rear calipers may have a parking brake



**8** Its cable or wiring should be disconnected when replacing the caliper



**9** When replacing a caliper, it may be necessary to install a new bracket and guide pins if they are worn



**AUTODOC recommends:**

- Pay attention to the brake caliper installation side

**10** The bleeder screw has to be located at the top



**11** Access the brake fluid reservoir and check the fluid level



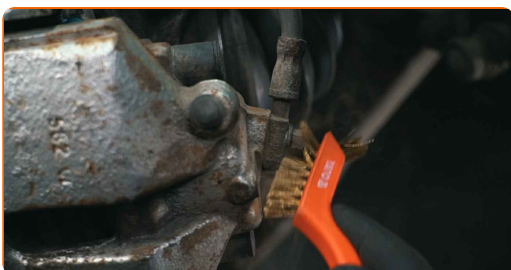
**12** Clean the cap and the outside of the reservoir



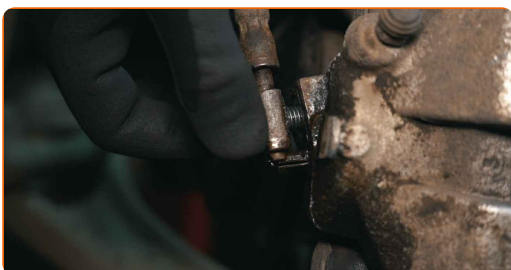
**13** Have a look at the brake caliper design



**14** Disconnect the brake hose fitting



**15** Clean the area where it connects beforehand



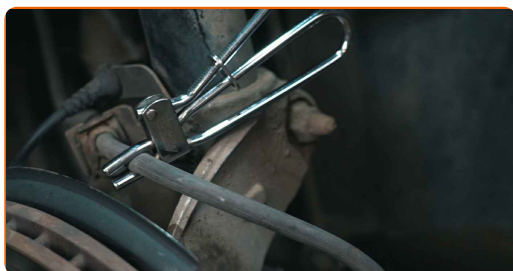
**Be careful!**

- Prevent brake fluid from leaking

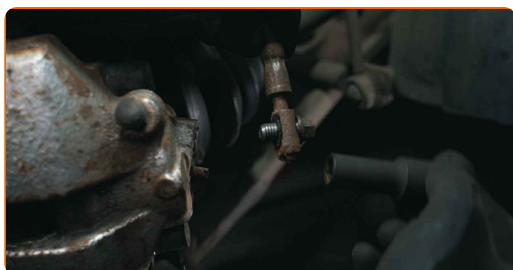
**16** Clamp the brake hose with a special tool or unscrew the fitting fastener and use a clamp



**17** Fix the clamp on the hose at a right angle



**18** Move the brake hose aside



**19** Unscrew and disconnect the brake caliper fasteners



**Please note!**

- If the caliper is difficult to remove,

**20** Remove the brake caliper



**21** Incorrect brake caliper operation results in quick and uneven wear of the brake pads and disc



**22** Check their condition regularly to detect caliper failure in good time



**23** Replace any worn parts if necessary



**24** Read the manufacturer's instructions before installing a new brake caliper





**25** Inspect and, if necessary, replace the brake caliper retaining springs and brake pad anti-rattle clips



**26** Reassemble in reverse order



**27** Install the brake pads



**28** Install a new brake caliper



**Important!**

- Make sure all the parts are in the correct position

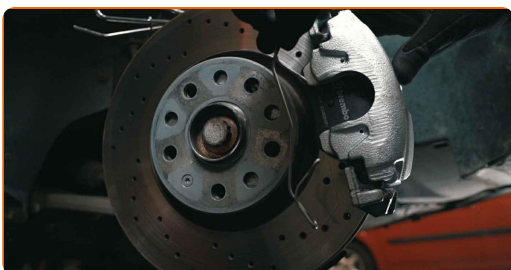
29 Screw in the guide pins



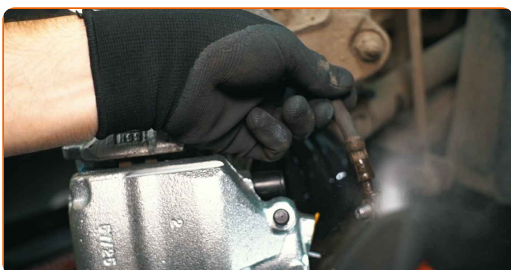
30 Tighten the fasteners to the torque recommended by the manufacturer



31 Install additional brake caliper retainers, if there are any



32 Clean and connect the brake hose



33 Tighten the fitting to the torque recommended by the manufacturer



**34** Bleed the brake system



**35** Remove the cap from the bleeder screw



**36** Undo the bleeder screw and remove the hose clamp



**37** As soon as the fluid starts to leak out, tighten the bleeder screw



**38** Check and correct the brake fluid level on a regular basis

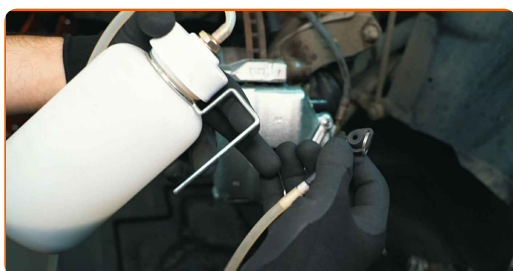


Please note!

- Do not loosen the bleeder screw excessively
- Prevent dirt and debris from getting into the reservoir

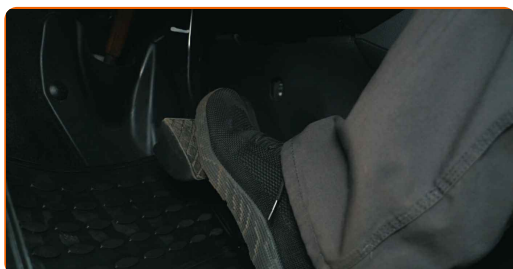
39

To bleed the system, you will need an assistant or special equipment



40

In the first case, the assistant presses the brake pedal several times until they feel significant resistance



41

Without releasing the pedal, the assistant lets you know that you can unscrew the bleeder screw



AUTODOC recommends:

- Prepare a container for the fluid in advance

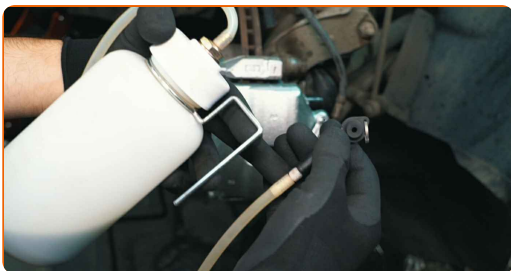
**42** Undo the bleeder screw, drain the brake fluid, and tighten the screw again



**43** Repeat the procedure until all air is purged from the brake system



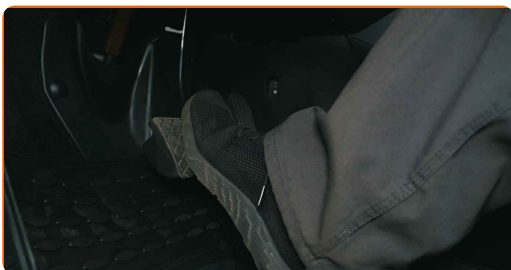
**44** In the second case, prepare a brake bleeder consisting of a container with a hose, a fitting, and a check valve



**45** Connect this device to the bleeder screw on the caliper and loosen the screw slightly



**46** Press the brake pedal several times



AUTODOC recommends:

- Repeat the procedure until all air is purged from the brake system

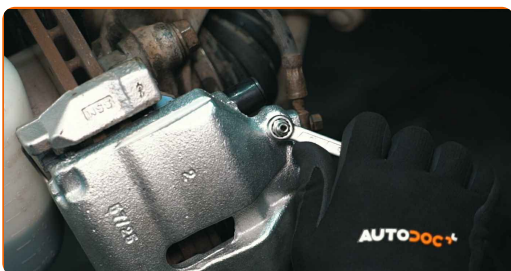
47

Make sure that the fluid that passes through the hose is free of air



48

Tighten the bleeder screw



49

Clean the bleeder screw



50

Tighten the bleeder screw to the torque recommended by the manufacturer



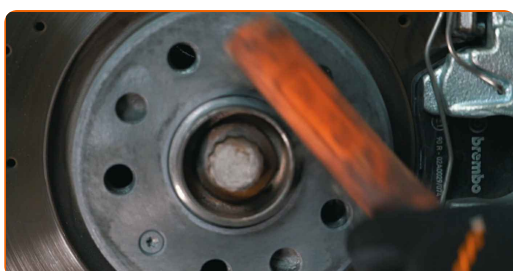
**51** Press the brake pedal several times to check for leaks



**52** Put the protective cap on the bleeder screw



**53** Clean the surfaces of the brake disc and the wheel hub that are in contact with the mating surface of the wheel rim



**54** Treat the surfaces with an anti-corrosion agent



**55** Clean the brake disk surface



56

Check the brake fluid level in the expansion tank and refill if necessary



#### AUTODOC recommends:

- Change the brake fluid if necessary



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