Brake Disc Damage & Causes

BOSCH

Damage to the friction surface on a brake disc can cause adverse and undesirable effects, along with accelerated brake wear and reduced performance. This pictorial guide from Bosch shows some more common damage types, along with recommendations to correct the cause of the disc damage.

If the cause of the abnormal wear is not corrected, the abnormal wear will continue and damage the replacement brake disc.

Scoring or grooves on the friction surface

Cause Dirt particles on brake disc and pad

Effects Brake noise
Rubbing effect during braking
Reduced braking performance

Recommendation When changing the brake discs, always change the brake pads as well

Indentations on the contact surface

Causes Improper cleaning of the contact surfaces
Damage to the surfaces through contamination
Distortion of the wheel hub

Effects Increased lateral run-out of the brake discs
Chattering and rubbing effects

Recommendation Clean the contact surface of the brake disc and the wheel hub before mounting new brake discs.
Do not use paste lubricants (copper paste, etc.)

More information on brake servicing can be seen on the Bosch Mobility YouTube channel by search for "How to change disc brakes", or by scanning the QR code on the right.

Uneven wear

Causes Uneven function of the brake calliper
Run-out of the brake disc

Effects Poor and/or irregular braking performance
Vibration in the steering wheel
Pulsing effect in the brake pedal

Recommendation Check the brake calliper and wheel hub when installing new brake discs

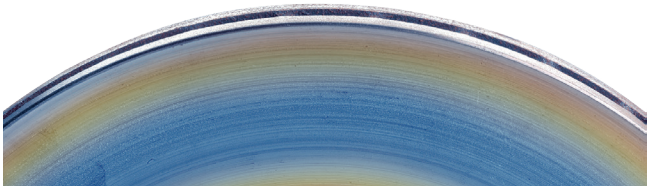
Corroded friction area

Causes Corrosive substances (e.g. road salt, cleaning agents)
Damage through water or lack of use – low demand

Effects Noise during braking
Irregular braking performance

Recommendation Replace brake discs and pads.
Instruct the customer to occasionally stress the brakes by applying pressure appropriately (bed in the brakes)

Blue surface discolouration



Causes Overheating due to jammed/seized brake pads
Vehicle driven with activated or seized parking brake
Brake calliper piston is sticking

Effects Rubbing effect during braking
Overheating

Recommendation Check the entire brake system
Ensure that the brake calliper is functioning properly