February 2022

BOSCH
Invented for life

Bosch compound brake discs
Technical information

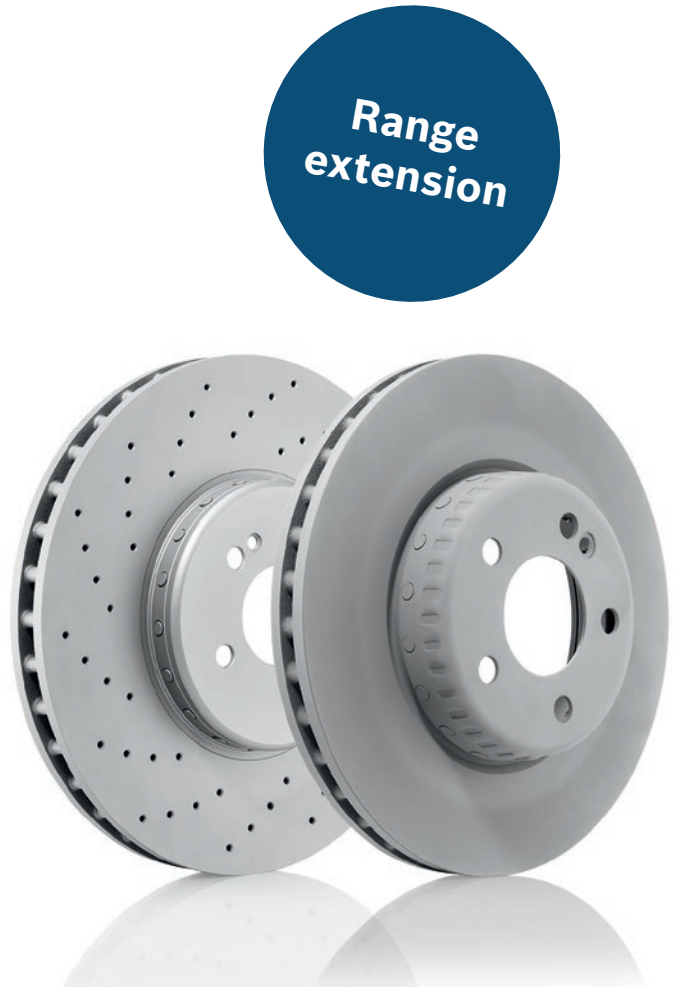
The range of compound brake discs for Mercedes models has been extended. The compound brake disc is a new product innovation in lightweight design, comprised of a profiled steel hat, combined with a high-carbon cast iron friction ring. The two components are held together by stainless steel rivets.

The design is based on the respective original equipment brake disc and the specially developed packaging protects both the brake disc and the anti-rust coating.

Compound brake discs feature various materials, binding methods and designs, depending on the vehicle model.

Advantages over standard cast iron brake discs

- Lightweight component design results in lower fuel consumption and reduced CO_2 emission.
- Reduced unsprung mass improves driving comfort and performance.
- Enhanced thermal capacity and heat conductivity reduces brake judder. Another advantage is that the friction ring is highly resistant to thermo-mechanical stresses.
- The friction ring and rotor hat are joined using a special method which further reduces undesired heat flow. This reduces warping and hot tears, as well as vibration and noise.



Example of a compound brake disc for Mercedes models in the current (left) and new design (right).

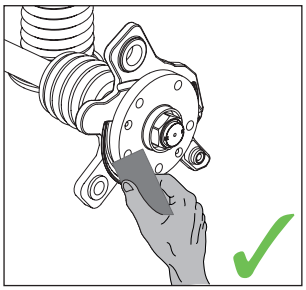
Info for wholesalers and workshops

All Bosch compound brake discs are ECE R90 certified and therefore offer customers the same quality as OE components. Their material composition and tolerances are optimally adapted to the brake system of the designated applications. Bosch compound brake discs also come with the required studs and feature a high-quality zinc dust coating for excellent corrosion protection.

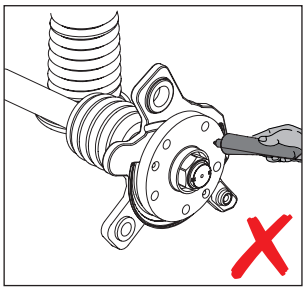
Handling and installing the compound brake disc

Compound brake discs are very sensitive, high-quality products. Special requirements and safety precautions are involved in the handling and installation of these components:

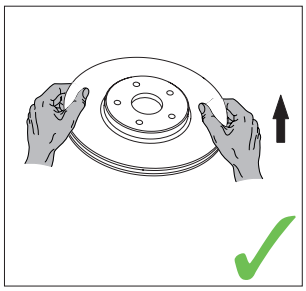
The discs should only be installed or repaired by qualified specialists.



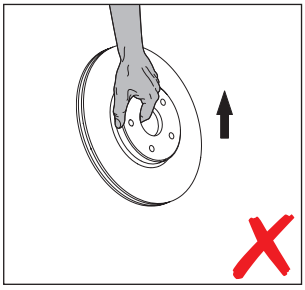
The hub seat must be clean, rust-free and even. It should not be damaged in any way.



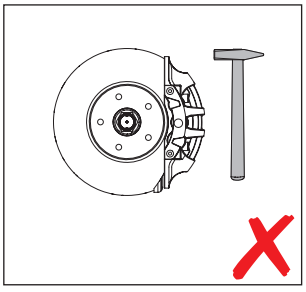
Do not use any assembly grease or copper paste.



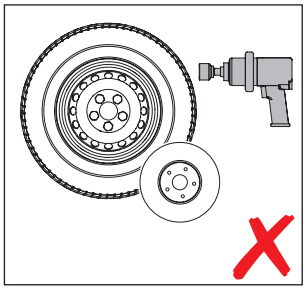
When transporting a compound brake disc, always use both hands, and grip the disc by the friction ring.



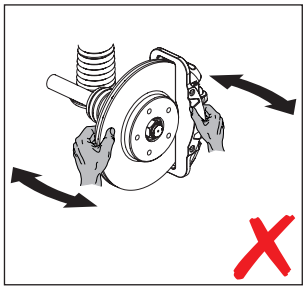
Do not lift or carry it by the disc chamber.



Hammers are not acceptable tools to use.



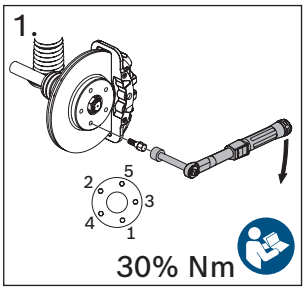
Impact wrenches are not acceptable tools to use.



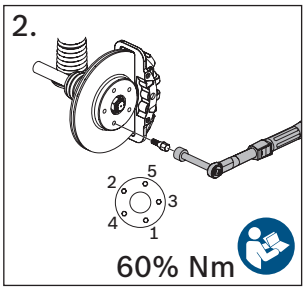
When the wheels have been removed, steering motions should only be performed by rotating the steering wheel.

Important:

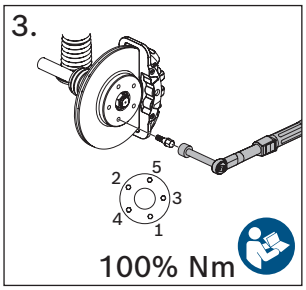
Always use a torque wrench to tighten the screws of the compound brake discs.
Tighten the wheel screws evenly in three stages to the torque specified for the vehicle.



Evenly tighten the wheel screws crosswise using a torque wrench, max. 30% of the rated torque specified by the vehicle manufacturer.



Tighten crosswise to 60% of the rated torque specified by the vehicle manufacturer.



Tighten crosswise to 100% of the rated torque specified by the vehicle manufacturer.

After repair, the brake system should be bedded in somewhat if possible.
Be sure to follow the vehicle manufacturer's installation, assembly and safety instructions.