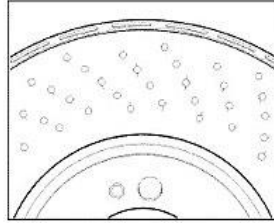


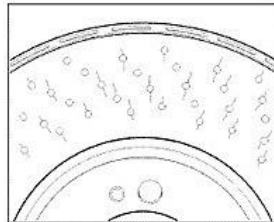
Evaluating the cracks on the gray cast iron brake discs

- The brake discs must be replaced (as a precautionary measure), if the perforation crack length is over 5 mm (as there is no mileage reserve in the event of further extreme load) or / and the friction plate rim is torn (lessens smoothness of braking and increases the likelihood that a disc will break)!
- In the evaluation of damage, the following drawings must be used!



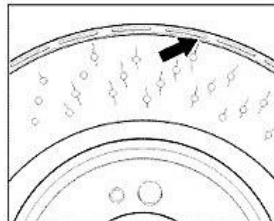
A. Corresponds to a disc exposed to above-average load.

- Need not be taken out of the vehicle!



B. In parts, perforation starter cracks over 7 mm long. Conditions after shock braking 1,200 times (minimum desired: shock braking 200 times).

- Brake disc can no longer be used!



C. Brake disc with torn friction plate rim –arrow– .

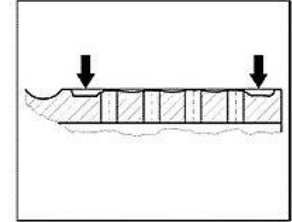
- Brake disc can no longer be used!

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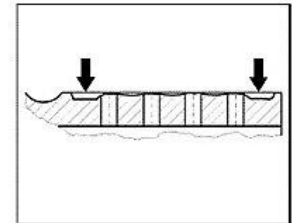
2. Checking brake discs for minimum thickness



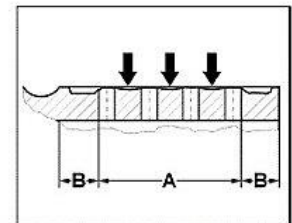
Note



- In the presence of high pressure forces, at the innermost and outermost hole-free friction plate track –arrows– , the brake lining friction surface is the least worn, compared to the middle holed area. As a result, in the case of weaker braking, a relatively higher surface pressure arises in these areas and therefore greater wear of the friction plates. The natural balance between stronger and weaker braking ensures that in almost all cases the typical wear profile of a perforated friction plate arises (inner and outer smooth friction rim area is worn the most–arrows– .
- As opposed to smooth brake discs, by which the minimum thickness is measured in the middle of the disc (effective friction radius), in the case of perforated brake discs, the minimum thickness must be measured on the inner or outer friction surface track –arrows– , whichever is most worn.
- Brake disc thickness/wear limit: Max. 2.0 mm total wear permissible. Refer to the technical data for the new dimension and other dimensions ' 46 Technical data/wear limits – Turbo or GT2 with gray cast iron brake discs .



Measure the smallest brake disc thickness with a suitable micrometer screw, at one of the two smooth friction rim areas –arrows– (at the most worn friction rim area).



The following drawing shows the typical grooved wear profile –arrows– of a perforated gray cast iron brake disc, which has been used to the wear limit, under tough conditions i.e. constant operation mode (test