

42–220 Removal and installation of brake disc on front axle

Data

| | | |
|-------------------------|---|------------------------------|
| Thickness of brake disk | 22 | |
| Wear limit | on fixed caliper with 57 mm piston dia. | 20.60 |
| | on fixed caliper with 60 mm piston dia. | 20.0 19.4 ¹⁾ |
| | on fixed caliper with 40 mm piston dia. | 19.4 |
| Brake disk dia. | 1st version | 273 ± 0.2 |
| | 2nd version | 278 ± 0.2 |
| | 3rd version | 284 ± 0.2 |
| Fitted bore dia. | | 80.05 |
| | | 80.00 |
| Lateral runout | max. 0.12 | |

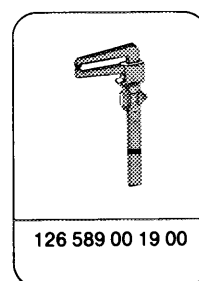
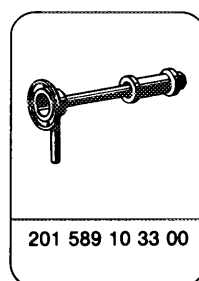
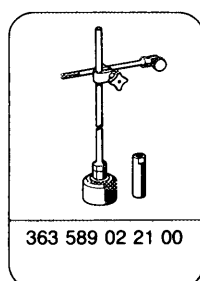
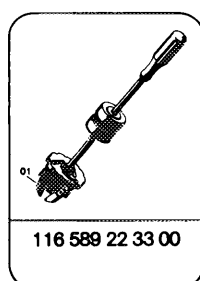
1) On fixed calipers with brake linings 17.5 mm thick. Starting March 1980.

Tightening torques

Nm

| | |
|---|-----|
| Self-locking hex. socket bolt for attaching brake disc to front wheel hub | 115 |
| Fitted hex. bolt for attaching fixed caliper to steering knuckle | 115 |

Special tools



Conventional tools

Open double box wrench 9 x 11 mm

e.g. made by Hazet, D-5630 Remscheid
order no. 612

Dial gauge A 1 DIN 878

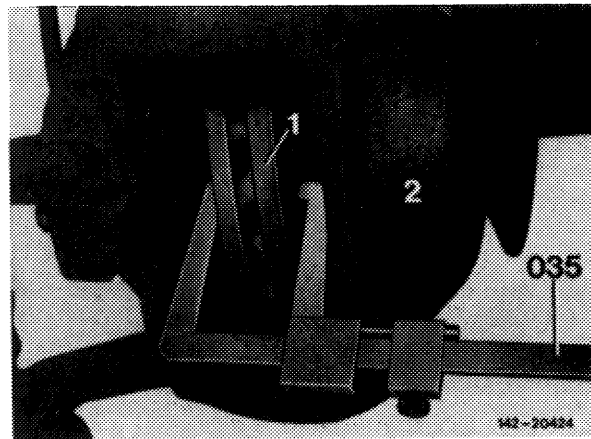
e.g. made by Mahr, D-7300 Esslingen
order no. 810

Note

When checking brake disc, proceed as follows:

- a) Measure thickness of brake disc between cover plate and fixed caliper, or with brake pads removed, in inspection hole by means of slide gauge.
- b) Check visually.

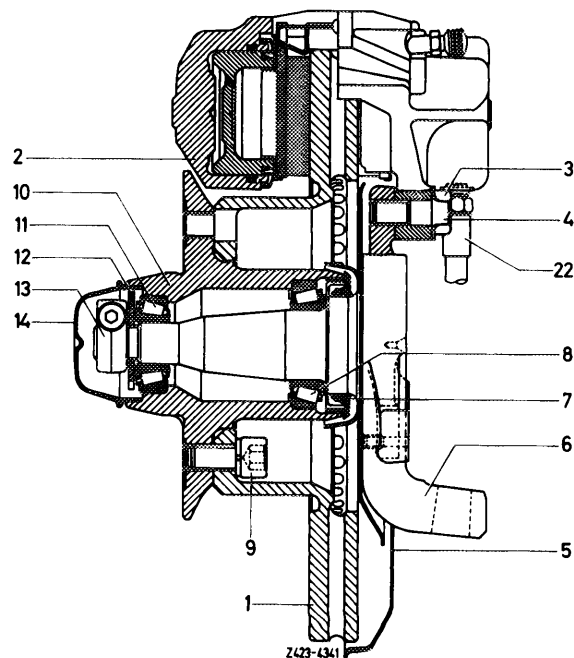
Vented brake disks with hair line cracks up to 25 mm in length, which may be caused by high stress, need not be replaced. Be sure to replace brake disks with gaping cracks, with cracks deeper than 0.5 mm, and after attaining the wear limit.



Removal

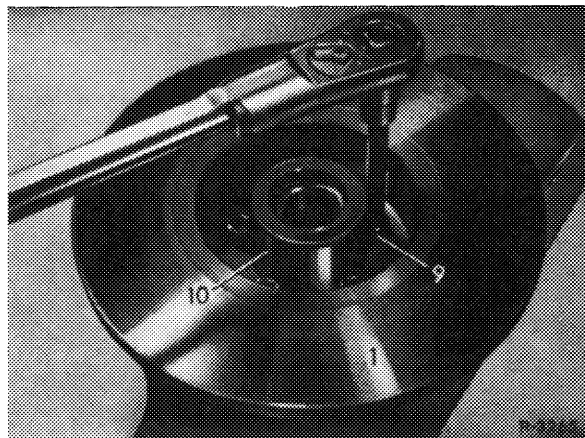
- 1 Remove fixed caliper (42–100).
- 2 Remove front wheel hub (33–310).

- 1 Brake disc
- 2 Fixed caliper
- 3 Hex. head fitted screw
- 4 Locking plate
- 5 Cover plate
- 6 Steering knuckle
- 7 Radial sealing ring
- 8 Tapered roller bearing
- 9 Self-locking hex. socket screw
- 10 Front wheel hub
- 11 Tapered roller bearing
- 12 Disc
- 13 Clamping nut
- 14 Hub cap



3 Screw three hex. bolts M 12 x 1.5 into front wheel hub. Then clamp front wheel hub into a vise, using aluminum jaws.

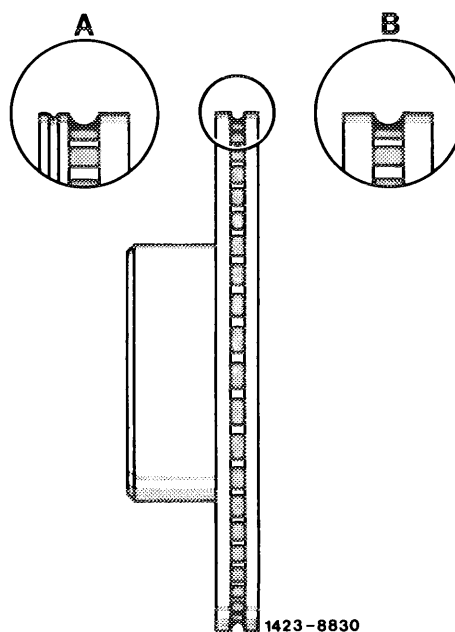
4 Unscrew self-locking hex. bolts (9), by means of which the brake disc (1) is attached to front wheel hub (10).



Installation

Attention!

Starting March 1980, modified fixed calipers will be installed with linings 17.5 mm thick and with modified vented brake discs, identified by a groove along their circumference.



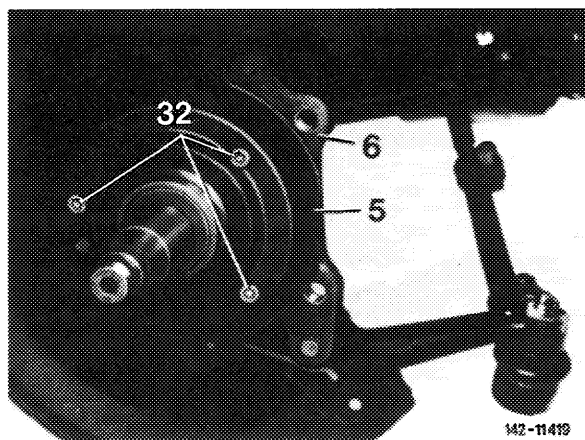
A = Brake disc with groove
B = Brake disc without groove

Note: Prior to installation of brake disc, remove rust (if any) on flange of brake disc and on front wheel hub. Make sure that there is no burr on fit of brake disc.

Check cover plate. Retighten hex. bolts (32), if required.

Spare part-brake discs are protected against corrosion by means of nitro-cellulose varnish. Prior to installation, these brake discs must be cleaned with thinner. Make sure that safety rules are observed.

Also make sure that the correct brake disc version is installed.

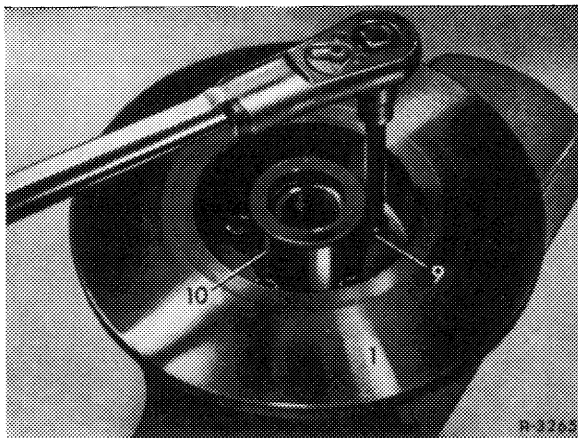


5 Attach brake disc (1) to front wheel hub (10) with new, self-locking hex. socket screws (9).

Tighten self-locking hex. socket screws to 115 Nm.

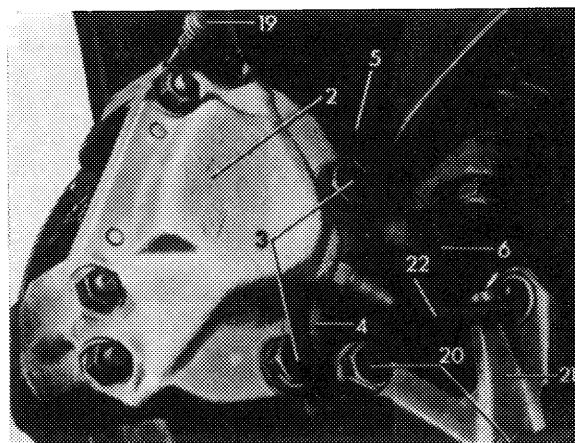
Instead of hex. socket screws with captive snap ring, part No. 000 990 3712, hex. socket screws with micro-encapsulated threads, part No. 000 990 7212 can also be used.

Note: Self-locking hex. socket screws may be used only once.



6 Install front wheel hub (33–310).

7 Fasten fixed caliper to steering knuckle (6) using a new locking plate (4) with fitted hex. screws (3) or self-locking fitted hex. screws (3) and tighten to 115 Nm. Lock with locking plate, if required (42–100).



Attention!

Self-locking fitted hex. screws are installed since end of 1976. **Fitted hex. screws may be used only once.**

During reconditioning jobs (if fixed caliper is not renewed) the original fastening method:

- a) screws with locking plate or
- b) self-locking screws should be maintained.

When renewing fixed calipers, use a locking plate also with self-locking screws for safety reasons.

Pay attention to perfect installation of brake hose.

Attention!

Prior to starting, actuate brake pedal several times energetically to establish the correct play between the brake disc and the brake pad. Then top up brake fluid in expansion tank of tandem main cylinder.

Note: If the pedal travel varies during a test drive (mainly after driving around bends), measure lateral runout of brake disc at outside diameter. Simultaneously check end play of wheel bearing at front wheel hubs and adjust, if required (33–300).

If the lateral runout of the brake disc is too high, displace brake disc on front wheel hub. Renew brake disc, if required.

