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shows you how

BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual

6 Front brake disc - inspection, removal and installation

Warning:

Dust created by the brake system is harmful to your health. Never blow it out with compressed air and don't inhale any of it. An approved filtering mask should be worn when working on the brakes. Do not, under any circumstances, use petroleum-based solvents to clean brake parts. Use brake system cleaner only.

Inspection

Note:

If either disc requires replacement, BOTH should be replaced at the same time to ensure even and consistent braking. New brake pads should also be installed.

1 Apply the parking brake, then raise the front of the vehicle and support it securely on jackstands. Remove the appropriate front wheel.

2 Visually inspect the disc surface for score marks and other damage. Light scratches and shallow grooves are normal after use and may not always be detrimental to brake operation, but deep scoring requires disc removal and refinishing by an automotive machine shop. Be sure to check both sides of the disc. If pulsating has been noticed during application of the brakes, suspect disc runout.

3 It's absolutely critical that the disc not be machined to a thickness under the specified minimum thickness. The minimum (or discard) thickness is cast or stamped into the hub of the disc. The disc thickness can be checked with a micrometer (see illustration) . If the disc has worn at any point to the specified minimum thickness or less, the disc must be replaced.

6.3 Measure the thickness of the disc with a micrometer



4 If the disc is thought to be warped, it can be checked for runout. Use a dial indicator set to zero and turn the disc. The indicator reading should not exceed the specified allowable runout limit. If it does, the disc should be refinished by an automotive machine shop. **Note:** *Some professionals recommend that the discs be resurfaced regardless of the dial indicator reading (during brake pad replacement), as this will impart a smooth finish and ensure a perfectly flat surface, eliminating any brake pedal pulsation or other undesirable symptoms related to questionable discs. At the very least, if you elect not to have the discs resurfaced, remove the glaze from the surface with emery cloth or sandpaper, using a swirling motion.*

5 Check the disc for cracks, especially around the wheel bolt holes, and any other wear or damage, and replace if necessary.

Removal

6 Unscrew the bolts securing the brake caliper mounting bracket to the hub carrier, then slide the caliper assembly off the disc (see illustration) . Using a piece of wire or string, tie the caliper to the front suspension coil spring, to avoid placing any strain on the hydraulic brake hose.

6.6 Caliper mounting bracket bolts



7 Use chalk or paint to mark the relationship of the disc to the hub. Remove the bolt securing the brake disc to the hub and remove the disc (see illustration) . If it is tight, lightly tap the rear face of the disc with a plastic mallet.

6.7 Disc retaining bolt



Installation

8 Installation is the reverse of removal, noting the following points:

- A. Ensure that the mating surfaces of the disc and hub are clean and flat.
- B. Align (if applicable) the marks made on removal, and tighten the disc retaining bolt to the specified torque.
- C. If a new disc has been installed, use solvent to wipe any anti-corrosion preservative coating from the disc before installing the caliper. Ensure the disc mounting surface on the hub is free from dirt and corrosion.
- D. Slide the caliper into position over the disc, making sure the pads slide past either side of the disc. Tighten the caliper mounting bolts to the specified torque.
- E. Install the wheel, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque.
- F. Depress the brake pedal a few times to bring the brake pads into contact with the disc. Bleeding won't be necessary unless the brake hose was disconnected from the caliper. Check the operation of the brakes carefully before driving the vehicle.

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