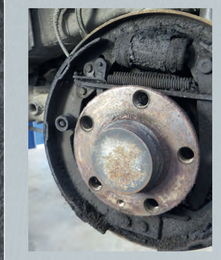
Essential Brake Repair Tips

Drum brake



TESTS
For an accurate assessment we recommend removing the brake drum.
→ Check the condition of brake shoes and brake linings and look for wear.
→ Check that the hand brake lever can move freely and is not obstructed.
→ Check the mobility, position and function of mechanical components, adjusters and tension springs.
→ Corroded or thermally-overstressed components must be replaced.

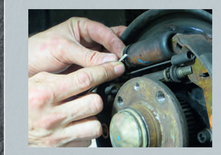
Note:
We recommend that, when you replace brake shoes, you also always replace the associated accessories.

Wear limit of at least 2 mm

BRAKE LINING THICKNESS
Measure the thickness of the brake lining at different locations.
Linings must be replaced when:
→ Their thickness falls below the prescribed limit.
→ In the case of riveted brake shoes, the lining reaches the top edge of the rivet.
→ The brake shoes are overheated, oily or worn very unevenly.

Always observe the manufacturer's instructions for the specific vehicle!
Different wear limits may be specified for different vehicles.
Always comply with the vehicle manufacturer's instructions.

Repair notes:
If the brake linings on the left and right wheel brakes are not equally thick, make sure that the wheel brake cylinder and brake shoes are free to move. To ensure balanced braking always renew the brake shoes on both ends of the axle.



WHEEL BRAKE CYLINDER
→ Check that the wheel brake cylinder has no leaks and that it can move freely.
→ Check the piston for corrosion and check the dust cover for damage.
→ Damaged or defective wheel brake cylinders must always be replaced.

BRAKE DRUM
Inner diameter
Use a suitable gauge to measure the inner diameter of the brake drum at a number of points. The permissible limit (MAX.DIA) is marked on the inside or the outer edge on the brake drum. If the number marked on the drum is no longer legible, use the value specified by the vehicle manufacturer. If the diameter exceeds the limit then the brake drum must be replaced.

Visually inspect the contact surfaces
Brake drums with heavily grooved or corroded contact surfaces must be replaced. If the contact surfaces of a drum brake are grooved, check it for contamination, heavy soiling or excessive brake shoe wear. Corroded surfaces may be caused by a poorly functioning brake. In such cases, check the wheel brake cylinder and the automatic adjuster.

Note:
Do not turn or grind brake drums beyond the stipulated limit.

Cleaning and lubricants

Cleaning drum brake components:
→ Use brake cleaner and lint-free cloths.
→ Heavy contamination inside the drum brake or corrosion on the contact surfaces of the backing plate or the support bearings should be carefully removed using a brush.
→ Mechanical damage to the brake linings or dust protection collars must always be avoided!

Safety notes!
When you clean the brake system, avoid creating dust by using compressed air or a dry brush. Inhaling brake dust can irritate your respiratory passages and damage your health!

Use of lubricants:
→ Before mounting the brake shoes, thinly grease the cleaned contact surfaces on the support bearings, wheel brake cylinder and backing plate.
→ Use metal-free, heat-resistant, non-conductive brake lubricants.
→ Do not contaminate friction materials with oil or grease as this may cause the brake system to fail.
→ Lubricants or sprays that contain metal may cause ABS sensors to malfunction or give rise to electrochemical corrosion.
Here we recommend that you use HELLA metal-free permanent lubrication.

HELLA brake shoe kits

Save time with HELLA brake shoe kit and brake shoe kit PRO
In addition to the brake shoes on offer, our product range also includes more than 250 brake shoe kits. Advantage is their complete set of parts. Every brake shoe kit is therefore available with additional accessories and wheel brake cylinders.

Using the preassembled brake shoe kit PRO enables you to save time and effort by mounting all the necessary components simultaneously in a single step. At the same time this method of repair guarantees that the drum brake will function safely, because there is no need to reuse any worn components or accessories.

Maintenance hints

→ Repairs should be carried out only by trained qualified personnel.
→ Comply with the brake and vehicle manufacturers' installation information and the enclosed product-specific leaflet.
→ Brake tools facilitate maintenance and repair work and prevent unnecessary damage to the brake system.
→ Use only verified and approved drum brake linings.
→ When you replace a brake drum, always also renew the brake shoes.
→ When you replace a brake drum or brake shoes, always do so for both of the pair or the whole axle.
→ Brake systems must always be bled after any hydraulic component has been replaced.
→ Once the brakes have been repaired, press the brake pedal several times up to two thirds of the way down to enable the brake linings and pistons to take up their working positions.
→ Run in new brake systems carefully because new brake drums and drum brake linings need an initial bedding-in period. Always comply with the vehicle manufacturers' run-in instructions!
→ Test the brake system for leaks and for effectiveness and carry out a road test.