

Reconditioning the Brake Drums

Job No.

42 — 12

Checking:

1. Check the brake drum for cracks and broken cooling fins. Broken drums or drums with more than three consecutive cooling fins missing must be replaced.

2. Check the braking surface of the brake drum for scores and wear.

The internal diameter of a new brake drum is 230 ± 0.2 mm. The braking surface can be reconditioned to an internal diameter of 232 mm.

Brake drums with a larger diameter must be replaced. Wherever possible the brake drums on any one axle should have the same internal diameter.

3. Check the brake drum bore for the wheel hub.

The permissible diameter of this bore is 67.00 — 67.03 mm.

4. Check the brake drum for variation in wall thickness. Brakes with a variation in wall thickness of more than 1 mm should be replaced, since they are liable to cause brake rattle.

Turning:

5. Clean the brake drum carefully to ensure that it can be mounted properly. All dirt particles and burrs must be removed.

6. Install the brake drum on a suitable, true-running arbor (Fig. 42 — 12/1).

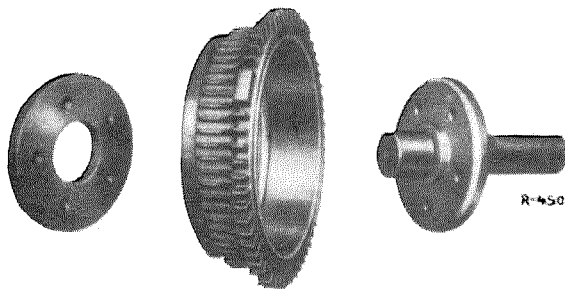


Fig. 42 — 12/1

7. Clamp the arbor with the brake drum on an accurate lathe or on a special brake drum turning lathe. Turn the brake drum with low cutting speed and a carbide tool. The finished surface must be perfectly smooth.

8. After turning, check the braking surface with a dial gage. The maximum permissible out-of-roundness of the brake drum is 0.05 mm. **In order to check the out-of-roundness, the brake drum must be slowly turned round and the braking surface must be measured on the whole circumference by means of a dial gage (Fig. 42 — 12/2).**

It is not sufficient to check the roundness of the brake drums with an internal micrometer.

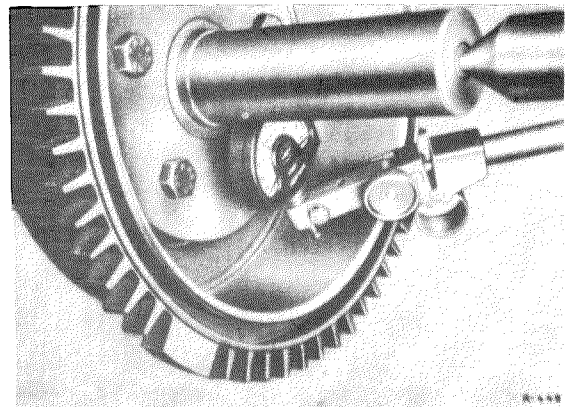


Fig. 42 — 12/2

Note: On the rear wheel brake drums the degree of out-of-roundness should be as small as possible to prevent brake rattle.

Permissible eccentricity of braking surface: 0.10 mm.

Permissible conicity: 0.10 mm.

Permissible run-out above the wheel bolt bores: 0.10 mm.

Permissible unbalance of brake drum: 200 cmg.

Gray cast iron drums contain extra stock at four places between the cooling fins; this stock can be milled off to balance the drum.