

Checking and Repair of Rear Axle

Job-No.

35 — 5

A. General Information on Rear Axle

Gearing	Number of teeth drive pinion : ring gear	Gear ratio	Oil capacity	Length of axle tube		Length of rear axle shaft	
				left mm	right mm	left mm	right mm
Gleason Hypoid	10 : 41	1 : 4.10	2.25	599.5 ± 1.0 (see Fig. 35—5/17)	670.5 ± 1.0 to center line of bushing (see Fig. 35—5/17)	693.0	676.0 687.0*

* Rear axle shafts with lock for slip coupling slide unit.

B. Bearings

The following points must be taken into account when judging the serviceability of the bearings:

As a rule, a bearing can still be regarded as serviceable, if the raceways or contact surfaces and the balls or rollers show no visible signs of wear or damage. In order to form a really sound judgement, the bearing must previously be cleaned in gasoline or trichloroethylene until all traces of dirt have been rinsed out of the bearing. A bearing can be considered free from all traces of dirt if there are no binding spots when it is rotated by hand.

A few drops of engine oil or gear oil should be put on the cleaned bearing so that it can be tested for silent running. When this test is made, it should be remembered that even bearings which have only been in operation for a short period of time are appreciably noisier than new bearings but this does not necessarily mean that they are unserviceable.

In order to avoid unnecessary rejection of bearings which are still serviceable, assessment of bearing serviceability should only be done by an expert who is experienced in this work.

Under normal running conditions, the radial play of a bearing should only show a slight increase during its lifetime.

When repairs are being carried out on a vehicle which has covered 100,000 km, the bearings should automatically be rejected even if examination shows that they are still serviceable. This is because their further period of serviceability is an unknown factor. But the decision must depend on whether replacement of the bearings is easy, i. e., on whether it can be done without any considerable disassembly and reassembly work or whether replacement involves considerable preparation.