

1. Check the bores for pits or scoring. The bores must not be re-machined. If necessary, the rear axle housing must be replaced.
2. Check the contact surfaces for the eyes of the right axle tube at the rear axle housing. If the surfaces are damaged or worn, they should be reconditioned in the same way as the eyes of the right axle tube (see Section D and Fig. 35—5/13, Fig. 35—5/15 and Fig. 35—5/19).

A stock reduction of up to 0.3 mm on each side is permissible. The diameter of the bore is 27.983—27.996 mm.

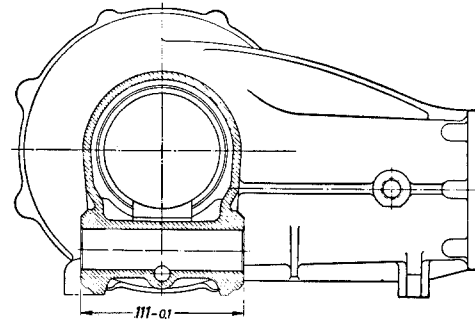


Fig. 35—5/19

F. Gear Train

Drive Pinion Shaft:

1. Check the drive pinion shaft for run-out. If the permissible run-out is exceeded at the various points (Fig. 35—5/20), the drive pinion shaft must be replaced.

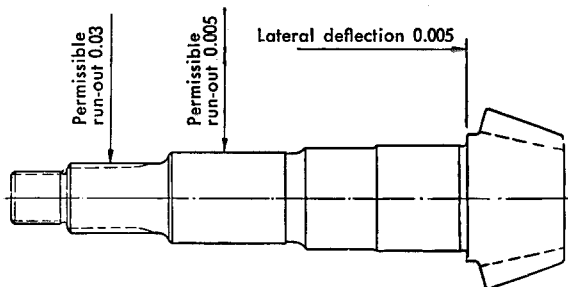


Fig. 35—5/20

Note: The drive pinion shaft must only be replaced together with the ring gear.

2. Check the bearing seats (dimensions and tolerances, see Table).

When pressing the bearings onto the drive pinion shaft, be careful to avoid chipping.

Pressure must only be exerted on the bearings at the inner race.

Dimensions and tolerances of drive pinion shaft in mm

Designation of bearing	Inner race of bearing diameter	Bearing seat on the drive pinion shaft diameter	Force-fit dimension (+) of clearance (—)
Cylindrical roller bearing 000 981 16 01	$\frac{39.988}{40.000}$	$\frac{40.013}{40.002}$	+ 0.002 to + 0.025
Angular contact bearing 000 981 04 27 000 981 07 27 (optional)	$\frac{34.988}{35.000}$	$\frac{35.006}{34.995}$	— 0.005 to + 0.018

Joint Flange:

3. Check the joint flange for lateral deflection. The deflection, measured at the outer diameter, must not be more than 0.02 mm.

If, after repositioning on the splines, the deflection is still greater than 0.02 mm, the joint flange can be turned down to 5.7 mm thickness. Otherwise, the joint flange must be replaced. If the sealing surface for the seal at the joint flange is worn, the sealing surface can be reconditioned, removing up to 0.5 mm of stock. When the sealing surface is new, the diameter is 34.840 to 35.000 mm. After reconditioning, the sealing sur-

face should once more be marked with a left-hand thread pattern (see Section C, Fig. 35 — 5/6).

Differential:

4. Check the differential pinion shaft and the bores for the differential pinion shaft in the differential housing (Fig. 35 — 5/21).

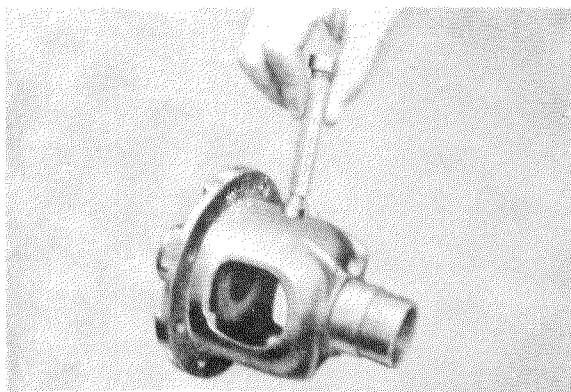


Fig. 35 — 5/21

If the bores in the differential housing are worn or damaged, the housing must be replaced.

5. Selective assembly is specified for the differential pinion shaft. The differential pinion shaft must be so selected that the specified force-fit dimension in the differential housing (0.002—0.023 mm) is obtained (see Table).

Dimension and tolerances for the differential pinion shaft
in mm

Type	Color code	Differential pinion shaft diameter	Bore in differential housing	Force-fit dimension
I	white	$\frac{17.023}{17.012}$	$\frac{17.000}{17.010}$	+ 0.002 to + 0.023
II	blue	$\frac{17.034}{17.023}$	$\frac{17.011}{17.021}$	+ 0.002 to + 0.023

6. Check the differential pinions and the differential side gears and their bores in the differential housing.

Note: Differential pinion gears, thrust washers and dished washers which have been overheated or have become scored, must always be replaced.

The diameter of the bearing journals of the differential side gears is 35.450—35.475 mm and the bore in the differential housing 35.500—35.525 mm (clearance, 0.025 to 0.075 mm). The two differential pinion gears have a bore diameter of 17.07—17.12 mm which results in a play on the differential pinion shaft of 0.036 mm to 0.108 mm.

7. If the ring gear has to be replaced, check the seating on the differential housing and the ring gear bore (Dimensions and tolerances, see Table. Replacement, see Job No. 35 — 4, Section "E. Disassembly and Reassembly of Gear Train").

Dimensions and tolerances of seating and bore of ring gear in mm

Diameter, differential housing	Bore in ring gear	Force-fit dimension
$\frac{107.035}{107.013}$	$\frac{107.000}{107.013}$	0.000 to + 0.035

8. Measure the lateral and radial deflection of the differential housing at the contact surface for the ring gear.

Maximum permissible lateral deflection
0.005 mm

Maximum permissible radial deflection
0.01 mm

The permissible deflection must not be exceeded.

9. Check the seating of the taper roller bearings on the differential housing.

Under no circumstances must the inner race of the taper roller bearing turn on the differential housing (Dimensions and tolerances, see Table).

Dimensions and tolerances of seating and bore of taper roller bearings in mm

Designation of bearing	Inner race of bearing diameter	Bearing seating at differential housing diameter	Force-fit dimension
Taper roller bearing 30 208 DIN 720	$\frac{39.988}{40.000}$	$\frac{40.014}{40.030}$	+ 0.014 to + 0.042