Adjusting Ring and Pinion Gears

General

The accurate adjustment of the ring and pinion gears is the decisive factor affecting the life and silent running of the rear axle. The ring and pinion gears are therefore matched during their manufacture and are tested on special machines to insure proper tooth contact and silent operation. The position where the least noise is generated is determined by varying the position of the two gears with respect to each other. The variation from the theoretical normal position and the optimum tooth contact is measured and the adjustment is then marked on both gears. Each ring and pinion set is marked with a pair number and must be replaced only as a complete unit.

The object of adjusting the ring and pinion gears is to reproduce the setting which generates the least noise according to the factory tests. This can be accomplished by accurately obtaining the setting which is marked on the gears.

When this adjustment is correctly carried out, the distance of the ring gear from the axis of the pinion gear and the distance of the pinion gear from the center of the ring gear will correspond to the predetermined settings. Instructions for these adjustments are given in the following section.

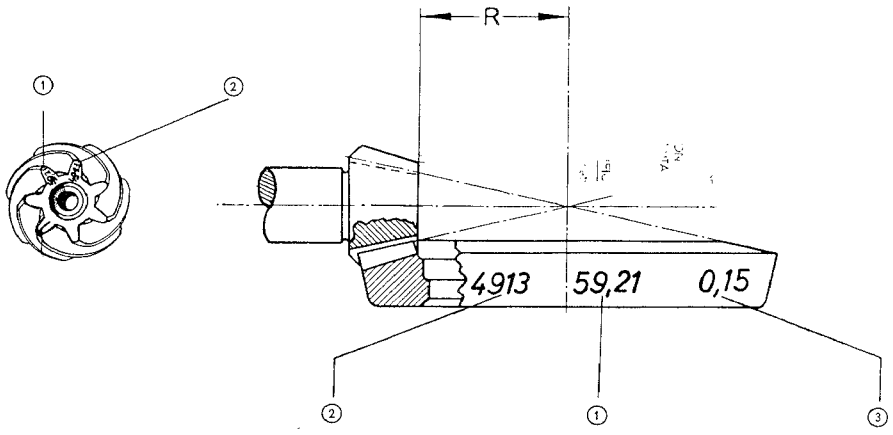

Fig. 96

① **Setting dimension "R" for ring and pinion gears**

② **Matching set number**

③ **Backlash for the ring pinion gears at setting "R"**

R **Distance between ring gear centerline and face of pinion**