

Packard **SERVICE** **TECHNICAL** **Bulletin**

TO: ZONES

52T-32

October 17, 1952

SUBJECT: NOISY DIFFERENTIALS

Product reports on rear axle difficulties indicate that, in many instances, detail parts of the differential are being replaced without first thoroughly diagnosing the trouble and then not properly inspecting the parts on disassembly. As a result, units have been torn down and rebuilt two and three times before the trouble was corrected. Quite often, differential assemblies are replaced after having been serviced two or three times within a short period of time.

The single item which contributes mainly to two and three tear-downs is excessive carrier pedestal spread which results in uneven side bearing contact and, consequently, bearing noise.

There have been instances in which a differential noise was traced to the side bearings and these were replaced and the noise eliminated; however, after the car was put into service, the noise again developed and again was caused by the side bearings and pedestal spread.

The attached photograph shows the uneven contact patterns in a bearing cup removed from a pedestal which was spread excessively. "A" shows the uneven pattern on the forward half of the cup. "B" shows the uneven pattern on the rear half. Note that these patterns are on opposite sides of the cup. The shiny areas indicate very little or no roller contact.

When this condition exists, it is advisable to replace the differential carrier and caps assembly as well as the side bearings. Other parts also may require replacement. In some instances, it might be advisable to replace the complete differential assembly.

Proper diagnosis and good judgment in the replacement of parts will prevent many "come-backs." "Come-backs" are costly and do not contribute towards maintaining customer satisfaction.

Zone Service personnel should exercise good judgment and discretion when participating in adjustments on differential or differential parts replacement. In some instances it may be necessary to deviate from the Warranty and Policy Procedure Manual; however, this should be done only after a thorough investigation to determine whether such action is advisable. It will be the responsibility of the Zone Parts and Service Managers to personally investigate all facts involved when an adjustment is made on units or parts beyond twelve months or 12,000 miles and in which the Factory participates.

Very truly yours,

J. A. Carr
J. A. Carr
General Service Manager