## Tech tip

Certain rear wheel bearings use the axle as an inner race; that is the bearing rollers ride directly on the axle shaft itself. At times, worn or pitted rollers, chipped or damaged bearings can wear a groove into the axle shaft. (See Fig. 1 on next page) Over time, the seal may also wear a groove into the axle shaft. (See Fig. 2 on next page) When this occurs it's usually necessary to replace the axle shaft assembly, bearings and seal.

A cost saving approach offered by SKF is an axle shaft repair bearing. The axle repair bearing assembly replaces both the bearing and the conventional seal requiring no additional parts. The repair bearing moves the position of the bearing and seal so that they ride on an unworn section of the axle shaft.

Six part numbers R1559, R1561-F, R1561-G, R1563, R57509 and R59047 cover the most popular Chrysler, Ford and GM axles. Each repair bearing comes ready to install for fast and reliable service.

Prior to replacement of the repair bearing assembly, the axle shaft should be examined for rust, corrosion, or imperfections that would prevent the bearing or seal from proper seating or sealing of the new repair bearing. The axle tube housing depth should be checked to ensure the repair bearing can be used for your application.

The depth and inner dimension of the axle tube should be compared to the width and outside diameter of the repair bearing. Certain models have a narrowed axle tube that will not allow the repair bearing to be properly installed. If the axle tube has a bearing seat on the inside of the axle tube, measure the depth from the outside edge of the axle tube to the inside seat and compare this to your repair bearing width. This measurement will ensure the repair bearing can be properly seated. Next measure the axle tube inner dimension with a telescoping gauge; this will determine if the axle tube may narrow on the inside. If the axle tube does not narrow and the seat recess measurement is acceptable follow the guidelines on the following page for installation.

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Installation guide:

- 1) Following the vehicle manufacturers recommended disassembly procedures; remove the axle, old seal and bearing.
- 2) Use only a fine grade emery paper to clean the axle shaft between the flange and the worn area. This will be the new roller path and seal surface.
- 3) Remove new bearing from its protective wrapping and dip it in clean differential oil. Allow bearing to drain excess oil before installing.
- 4) Install bearing in the axle housing with seal facing out. Caution: assembly force must be applied to bearing ring and not to seal. Striking or pushing on the seal will result in failure. A correctly installed bearing may extend out from the housing up to 1/4".
- 5) Re-install the axle per manufacturers recommended assembly procedures. Remember to clean differential housing and fill the differential with clean oil.



Figure 1

Figure 2

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