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1. STANDARD TORQUE SPECIFICATION TABLES

Refer to Section 00 general information for Standard Torque Specifications.

2. PROPELLER SHAFT

2.1 DESCRIPTION

The propeller shaft transmits power from the transmission to the differential (Figure 4). Refer to paragraph *"6. SPECIFICATIONS"* at the end of this section for propeller shaft length. The propeller shaft is Dana Spicer Life Series SPL250 type with tubular shafts. It is provided with two heavy-duty universal joints (Figure 4).

The propeller shaft has a half round end yoke at each end. The slip yoke is connected to the differential by a half round end yoke with two needle bearings.

The other extremity (tube yoke assembly) is connected to the transmission by a half round end yoke with two needle bearings (Allison transmission) or a flange yoke and companion flange with two needle bearings (I-Shift Transmission).

Furthermore, a slip joint on the propeller shaft compensates for variations in distance between the transmission and the differential, or between the output retarder (optional on the automatic transmission) and differential.

The rise and fall of the drive axle bring about these variations as the vehicle passes over uneven surfaces. The slip joint also eases removal of the transmission or the drive axle.

For further information, please consult **Spicer Life Series Driveshafts Service Manual DSSM-0100** included on your Technical Publications USB flash drive.

WARNING

DO NOT reuse bearing retainer bolts, stamped straps and stamped strap bolts.

DO NOT reuse spring tabs and spring tab bolts.

FIGURE 1: STRAPS (stamped)

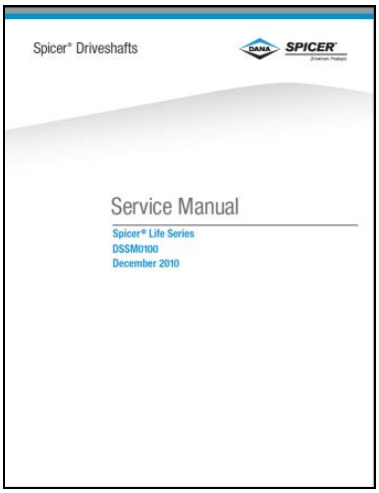
FIGURE 2: BEARING RETAINER (cold formed)

FIGURE 3: COLD FORMED BEARING RETAINER AND BOLTS AS USED ON PREVOST VEHICLES

DO NOT reuse **cold formed bearing retainers** and **bolts**. Reuse of bearing retainer and bolts can cause driveline failure, which can result in separation of the driveline from the vehicle.

3. INSPECTION, LUBRICATION, REMOVAL AND INSTALLATION

Please, refer to **Spicer Driveshaft's Service Manual DSSM-0100** for further details.



MAINTENANCE

Perform "Inspection Procedures" as per *Spicer Life Series Driveshafts Service Manual DSSM-0100* at the intervals specified by the Lubrication And Servicing Schedule in Section 24: LUBRICATION & SERVICING.

NOTE

Repair kits are available for overhaul of the propeller shaft assembly. Refer to Parts Manual, Section 9.

MAINTENANCE

Lubricate propeller shaft universal joints at the intervals specified by the Lubrication And Servicing Schedule in Section 24: LUBRICATION & SERVICING.

Apply grease gun pressure to the lube fittings (1 grease fitting on each universal joint). Use a good quality lithium-base grease such as: NLGI No.2 E.P. Grease (suitable for most temperatures). Refer to Spicer Driveshaft's Service Manual DSSM-0100 for further details.

NOTE

Do not assume that bearing cavities have been filled with new grease unless it has expelled around all seals.

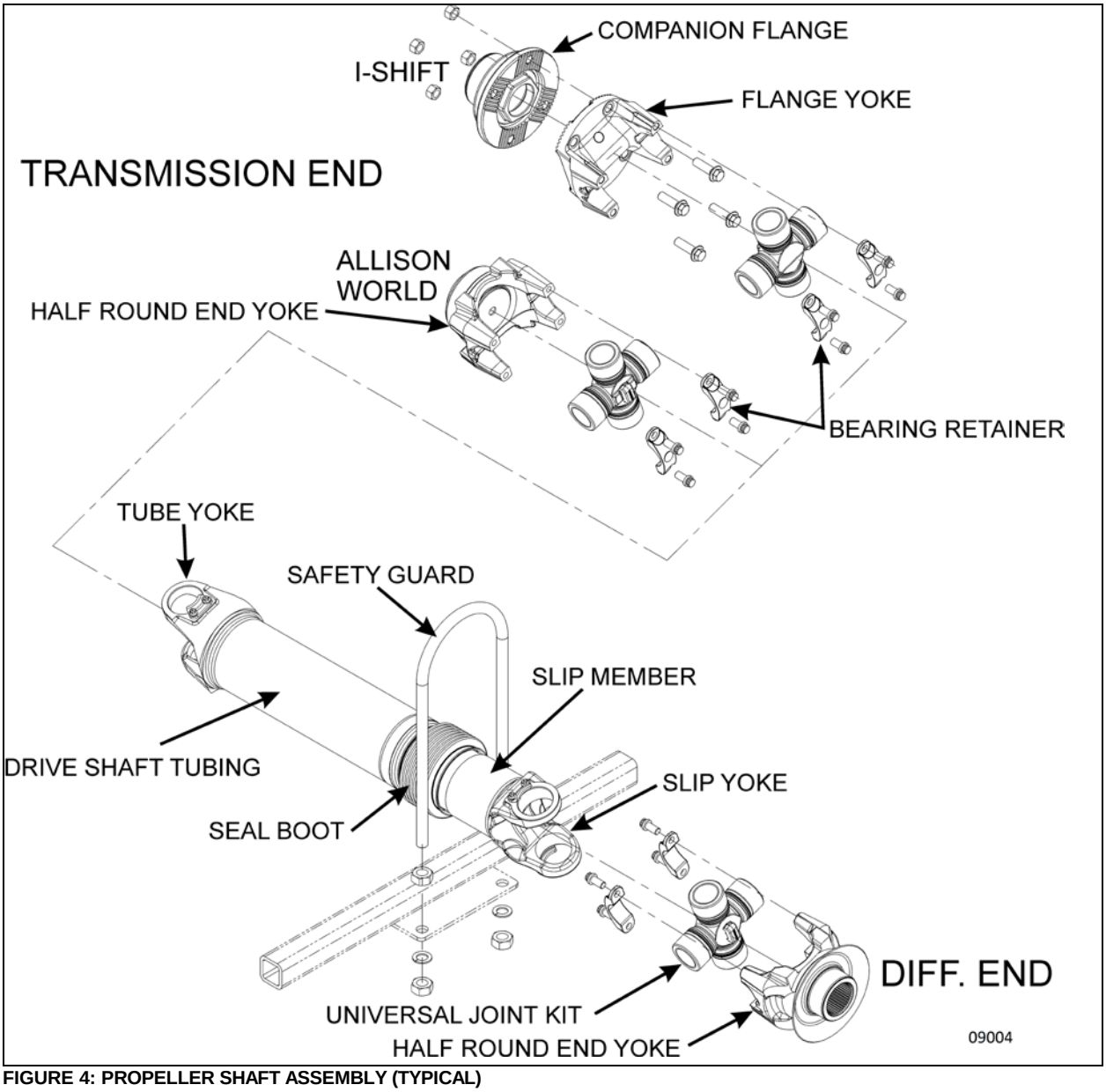


FIGURE 4: PROPELLER SHAFT ASSEMBLY (TYPICAL)

4. EXPLANATION OF COMMON DAMAGES

1. Cracks: Stress lines due to metal fatigue. Severe and numerous cracks will weaken the metal until it breaks.

2. Galling: Scraping off of metal or metal displacement due to friction between surfaces. This is commonly found on trunnion ends.

3. Spalling (surface fatigue): Breaking off of chips, scales, or flakes of metal due to fatigue rather than wear. It is usually found on splines and U-joint bearings.

4. Pitting: Small pits or craters in metal surfaces due to corrosion. If excessive, pitting can lead to surface wear and eventual failure.

5. Brinelling: Surface wear failure due to the wearing of grooves in metal. It is often caused by improper installation procedures. Do not confuse the polishing of a surface (false brinelling), where no structural damage occurs, with actual brinelling.

6. Structural Overloading: Failure caused by a load greater than the component can stand. A structural overload may cause propeller shaft

tubing to twist under strain or it may cause cracks or breaks in U-joints and spline plugs.

5. SPECIFICATIONS

PROPELLER SHAFT

Make ..... Dana-Spicer Inc.
Series SPL250