



# Technical Service Information

## AW55-50SN BUSHING & CASE FAILURE

**COMPLAINT:** The reason the vehicle came into the shop was due to the transmission not working properly because of metal contamination. Upon disassembly, various bushings are found to be extremely worn or in some instances, spun out. Further inspection reveals that the drive transfer gear bearing sleeve has too much lateral movement. When the sleeve is removed, the case is found to be worn.

**CAUSE:** There can be two causes for the above mentioned condition, one cause could be a loss of lube pressure due to main or secondary regulator valve wear. The second cause can be attributed to opposing forces between the Drive Transfer Gear and the Driven Transfer Gear. These opposing forces cause the drive transfer gear bearing support sleeve to wear the case, See Figure 1. As the side loading continues, excessive clearance is created between the bearing support and the case causing excessive lateral movement. This will spin the two bushings in the rear carrier which are poorly supported to begin with as well as the failure of various other bushings.

**CORRECTION:** The worn valves causing low lube pressure can be corrected by repairing the valve body using Sonnax products or by purchasing a new or tested valve body. Lube pressure can be checked at the lube pressure service port in the end cover as shown in Figure 2. Lube pressure can be high as 30 psi when temperature is minus 10 degrees Fahrenheit but at 150 degrees Fahrenheit normal lube pressure is approximately 5 psi in Drive and 8 psi in Reverse. If 0 to 3 psi is observed at operating temperature, then the valves and/or bushings are worn. The bushing wear issue can be corrected by installing a bushing kit available from Omega Machine & Tool. The rear carrier with the two piece bushing has to sent to Omega Machine & Tool where they will machine the carrier and install a one piece bushing, Refer to Figure 3. The case can be corrected by sending it to Omega Machine and Tool to be machined and sleeved, See figure 4.

### SERVICE INFORMATION:

*Omega Machine & Tool.....800-601-7722 or [omegamachine.com](http://omegamachine.com)*

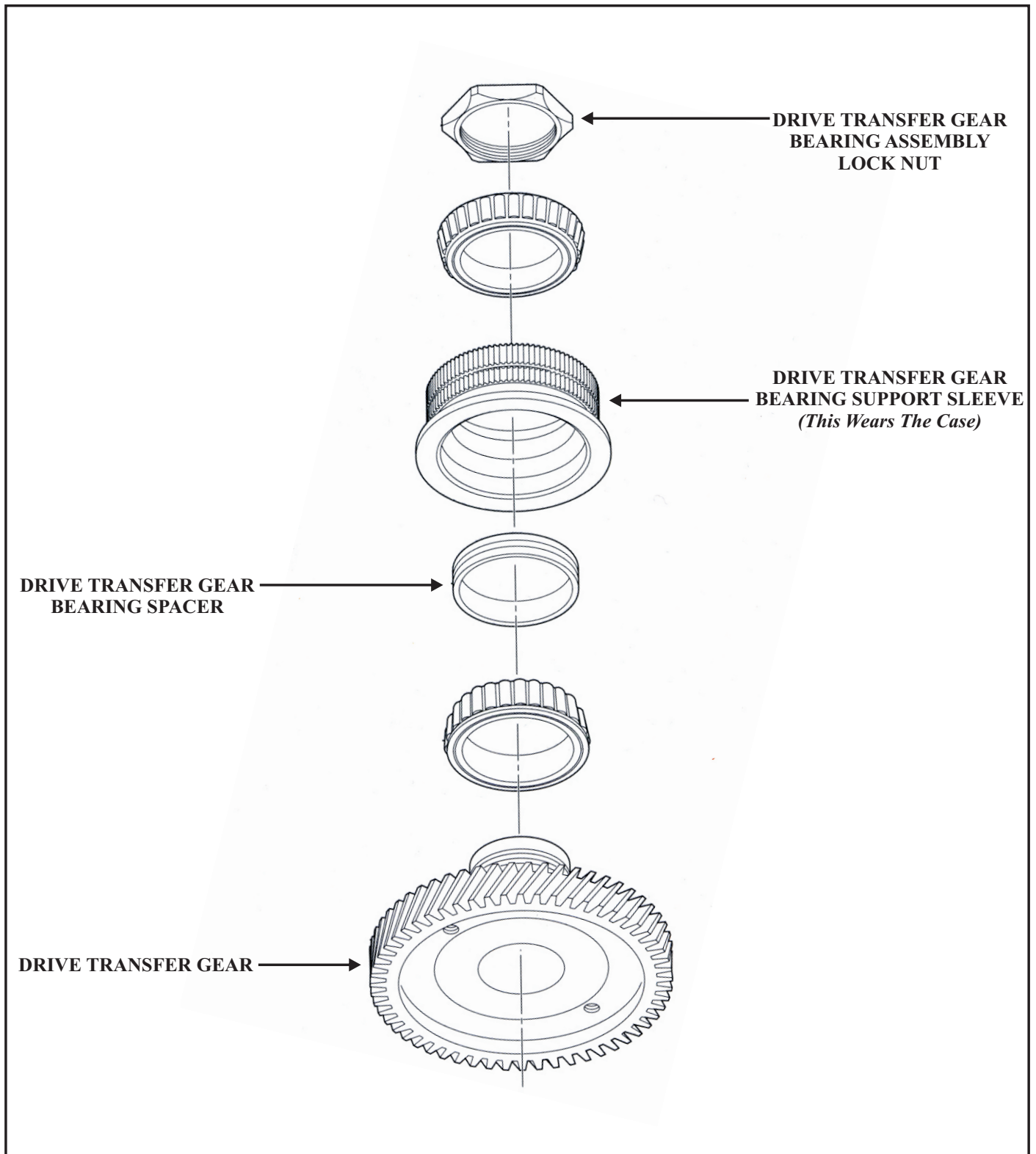


Figure 1

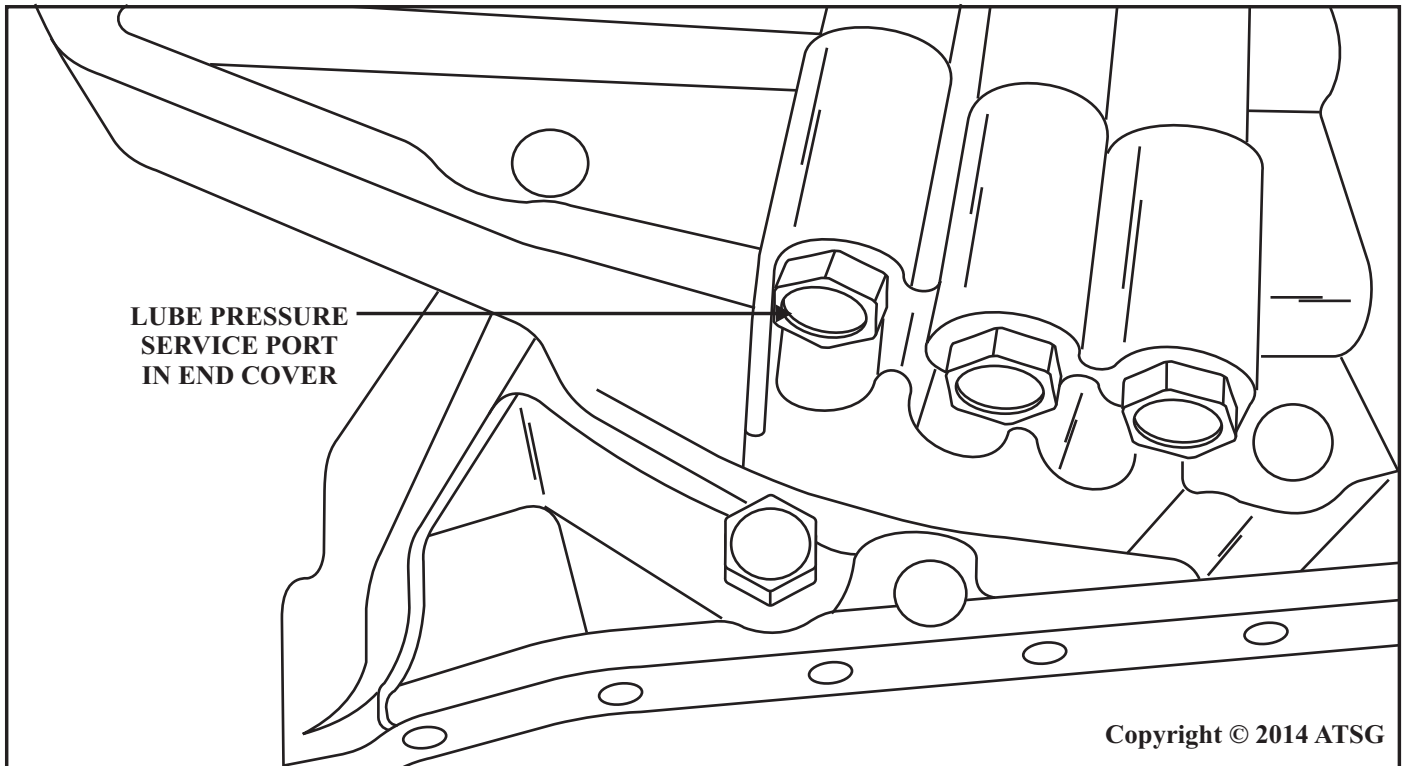


Figure 2

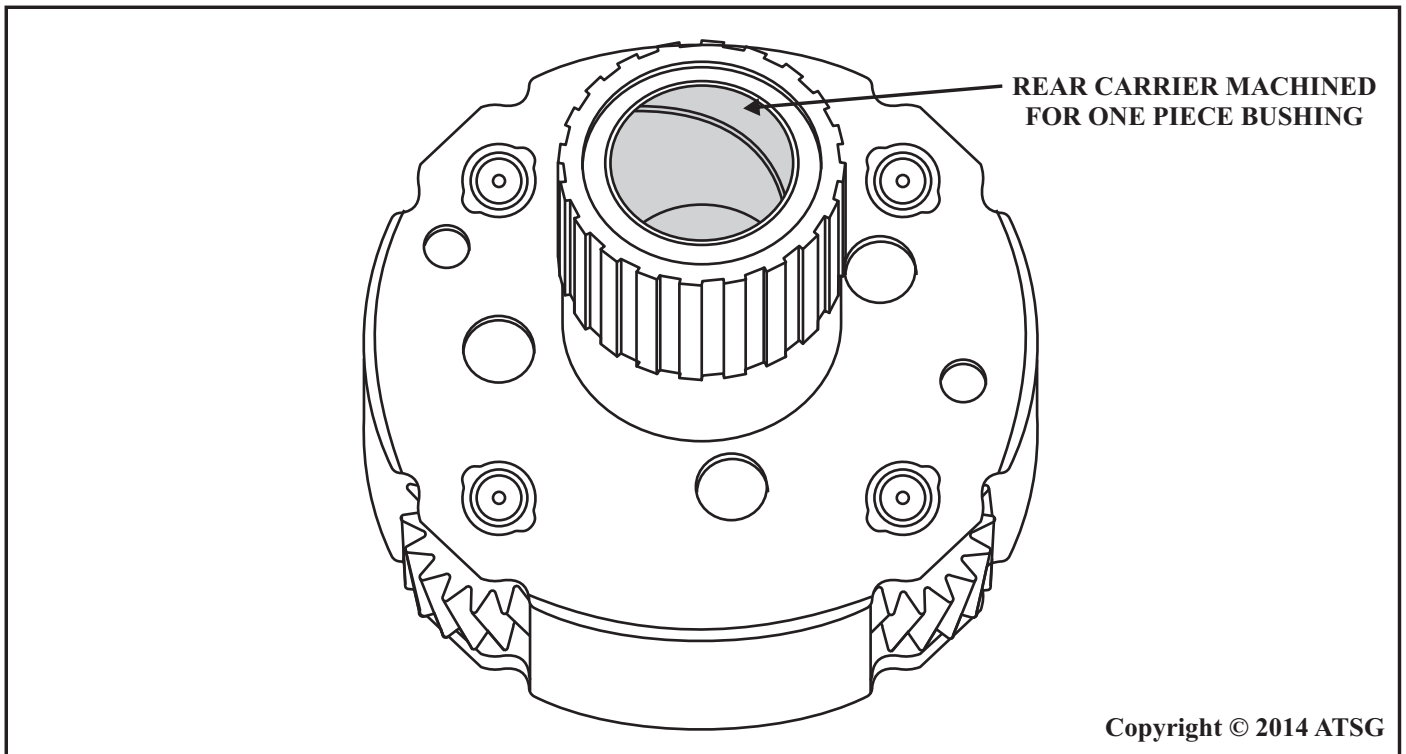


Figure 3

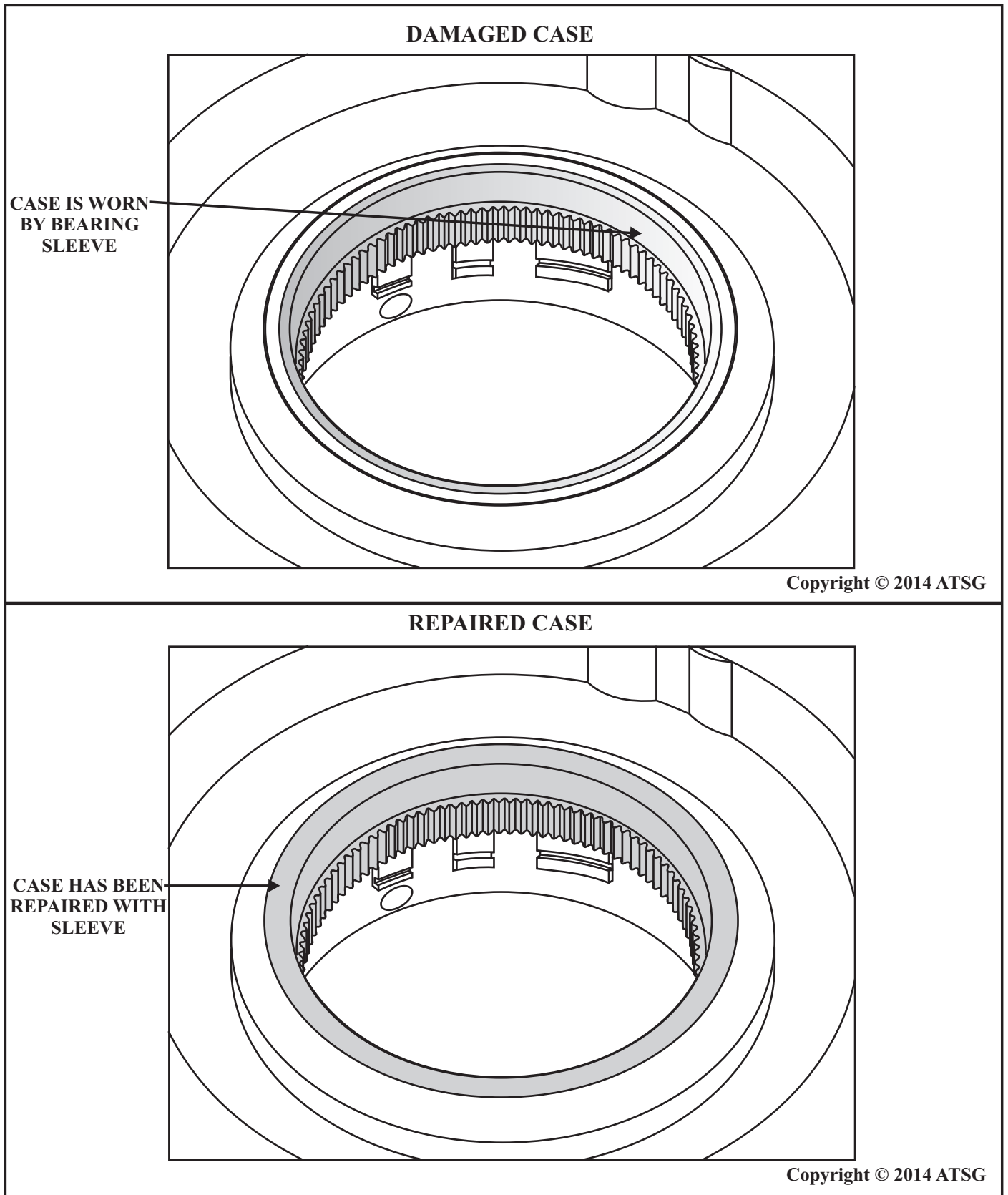


Figure 4