

## Transmission Families: 13/18 Speed, Convertible, Automated

### Symptom(s)

- Noise present at idle, occurs throughout entire engine RPM speed range (unlike classic neutral rattle, which is eliminated as the RPM is increased). Noise will be more noticeable as the engine RPM is increased, does not subside.

### Cause

The root cause of this problem is the gear tooth involute is straight and does not have adequate barrel form, sometimes referred to as tip relief. This can result in excessive contact just below the pitch line of the mainshaft low gear. The contact causes a wear line, which increases backlash between the countershaft and mainshaft gear. Scoring wear can also be observed on the drive side of the gear teeth.

Note: If scoring wear on the low gear set is present on both the coast and drive side of the gear teeth or there is severe pitting present, this may be the result of operation in low gear position, high range, for extended periods of time. Operating the vehicle in this manner is damaging to the low gear set because it's designed to be used only to start the truck in low range. Operational damage is non-warrantable.

**Note:** There must be a verified noise complaint for the repair to be covered under warranty.

### Repair Guideline

Replace the countershaft assemblies and the mating mainshaft low gear to cure this complaint. Its imperative that the updated PS-164 revision 7 Roadranger lubricant (became available Fall 2006) is installed following the repair to assure the gear wear will not reoccur.

### Warranty Labor

- Transmission R&R per OEM SRT
- Front Section Overhaul per OEM SRT

### Warranty Coding

Failed P/N: 4303409 (Mainshaft Gear)

Complaint: Noise

Failure: Mismachined

### Warranty Disclaimer

If the failure is not the result of an accident, damage, negligence, abuse or misuse, improper installation or maintenance or any other conditions described in the Limits and Exclusions section of Warranty Manual TCWY0600, then Roadranger will treat the condition as covered under its warranty. However, this conclusion does not necessarily mean that a defect in fact exists. In all cases, Roadranger shall make the final determination and interpretation as to the warrantability of the Product