

## T-091 Inspection Limits and Repair

### Turbine to Pinion Gear Coupling

|                               |  |
|-------------------------------|--|
| <b>Engine Application(s):</b> | 250-C28B, -C28C<br>250-C30, -C30L, -C30M, -C30P, -C30S, -C30R, -C30U, -C30G, -C30G/2, -C30R/1, -C30R/3<br>250-C40B, -C47B, -C47M         |
| <b>Subject:</b>               | Inspection and Rework Procedures for the E6889069 Turbine to Pinion Gear Coupling.   |
| <b>Compliance:</b>            | Any time the Turbine to Pinion Gear Coupling is removed during overhaul. Refer to the following Figure for Inspection and Rework Limits. |
| <b>Notes:</b>                 | Refer to OEM's published data for installation, engine operation and disassembly.  |
| <b>Revisions:</b>             | N/C 1/13/06 Initial Release.<br>A 8/07/09 Updated EXTEX to TIMKEN.<br>B 2/05/16 Updated Timken to EXTEX Engineered Products.             |

**T-091 Inspection Limits and Repair**

**E6889069 Turbine to Pinion Gear Coupling  
Inspection and Rework Limits**

| Condition   | Service Limit   | Repair Limit  | Corrective Action  |
|---|---|---|--|
| <b>Crack Indication, visual and MPI*</b>  | Cracks are not acceptable.  | No Repair.  | Install new or serviceable Coupling  |
| <b>Inclusions</b>   | Any inclusion extending into the spline root is NOT acceptable.<br>Nonmetallic inclusions may be acceptable as follows:<br>At Spline teeth radii root corners, provided no progression is evident,<br><b>AND</b><br>0.25 inch maximum length on shaft when not crossing (i.e. parallel to) the material flow lines. | No Repair.  | Install new or serviceable Coupling if Service Limit is exceeded.  |
| <b>Spline Tooth Wear</b>  | Maximum of 0.001 inch wear normal to spline tooth profile.<br><b>** See Note Below</b><br>Minimum over pin diameter (measured in two places):<br>1.3372 inch over 0.060 pins.   | No Repair.  | Install new or serviceable Coupling if spline wear Service Limit is exceeded.  |
| <b>Spline Tooth Damage (metal displacement):</b><br>Chips, gouges, grooves, nicks, spalling, etc. | Spline tooth damage is not acceptable.  | No Repair.  | Install new or serviceable Coupling if Service Limit is exceeded.  |
| <b>Rough or Sharp Edges</b>   | Rough or sharp edges are not acceptable.<br><br>No imperfections are acceptable after blending.   | After blending, spline tooth wear service limits are met. | Blend using crocus cloth or Arkansas stone.<br><br>Install new or serviceable coupling if Service Limit is exceeded. |

**NOTES:**

\* MPI technique as follows: A) Circular between heads  
AND

B) Longitudinal in a coil

\*\* Use of OEM NO-GO gauge 23060761 is permitted in lieu of over pin measurement

**TABLE 1**