

T-003 Inspection Limits and Repair

Turbine to Pinion Gear Coupling

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| Engine Application(s): | 250-B17F, B17F/1, B17F/2 250-C20, C20B, C20F, C20J, C20S, C20W 250-C20R, C20R/1, C20R/2, C20R/4 |
| Subject: | Inspection and Rework Procedures for the A6870832 & E6870832 Turbine to Pinion Gear Coupling. |
| Compliance: | Any time the Turbine to Pinion Gear Coupling is removed during overhaul. Refer to the following Figure for Inspection and Rework Limits. |
| Notes: | Replaces Service Letter T94-002 issued by Superior Turbine on May 18, 1994. Refer to OEM's published data for installation, engine operation and disassembly. |
| Revisions: | N/C Dated: 01/30/97 Initial Release. A Dated: 11/26/97 Updated format. B Dated: 01/23/01 Updated format. C Dated: 09/10/09 Updated EXTEX to TINKEN. D Dated: 02/02/16 Updated Timken to EXTEX Engineered Products. |

T-003 Inspection Limits and Repair

**A6870832 & E6870832 Turbine to Pinion Gear Coupling
Inspection and Rework Limits**

| Condition | Service Limit | Repair Limit | Corrective Action |
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| Crack Indication, visual and MPI* | Cracks are not acceptable. | No Repair. | Install new or serviceable Coupling |
| Inclusions | Any inclusion extending into the spline root is NOT acceptable. Nonmetallic inclusions may be acceptable as follows: At Spline teeth radii root corners, provided no progression is evident, AND 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. |
| Spline Tooth Wear | Maximum of 0.001 inch wear normal to spline tooth profile. ** See Note Below Minimum over pin diameter (measured in two places): 1.2747 inch over 0.060 pins. | No Repair. | Install new or serviceable Coupling if spline wear Service Limit is exceeded. |
| Spline Tooth Damage (metal displacement): chips, gouges, grooves, nicks, spalling, etc. | Spline tooth damage is not acceptable. | No Repair. | Install new or serviceable Coupling if Service Limit is exceeded. |
| Rough or Sharp Edges | Rough or sharp edges are not acceptable. No imperfections are acceptable after blending. | After blending, spline tooth wear service limits are met. | Blend using crocus cloth or Arkansas stone. Install new or serviceable coupling if Service Limit is exceeded. |
| Localized Galling of Splines | Galling is not acceptable. | Maximum depth: 0.005 inch Any length. | Remove buildup or sharp edges with Arkansas stone. |

NOTES:

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

B) Longitudinal in a coil

** Use of OEM NO-GO gauge, 23060760, is permitted in lieu of over pin measurement

TABLE 1