

## Inspection limits & Repair T-006

### Turbine Tie Bolt

|                        |  |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
|------------------------|--|--|---------|------------------|-------|----------|-----------------|-------|---------|-----------------|-------|---------|------------------------------|-------|---------|--|
| <b>Engine</b>          | 250-B15G   |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| <b>Application(s):</b> | 250-B17F, B17F/1, B17F/2<br>250-C18, C18A, C18B, C18C<br>250-C20, C20B, C20F, C20J, C20S, C20W<br>250-C20R, C20R/1, C20R/2, C20R/4   |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| <b>Subject:</b>        | Inspection and Rework Procedure for the A23008020 & E23008020 Turbine Tie Bolt.  |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| <b>Compliance:</b>     | Any time the Turbine Tie Bolt is removed. Refer to the Table and Figure for Inspection and Rework Limits.<br><br>Table 1: Inspection and Rework Limits<br>Figure 1: Dimensional Limits   |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| <b>Notes:</b>          | Replaces Service Letter T94-008 issued by Superior Turbine on May 17, 1994. Refer to OEM's published data for installation, engine operation and disassembly.  |  |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| <b>Revisions:</b>      | <table><tr><td>N/C</td><td>1/30/97</td><td>Initial release.</td></tr><tr><td>Rev A</td><td>11/27/97</td><td>Updated Format.</td></tr><tr><td>Rev B</td><td>1/23/01</td><td>Updated Format.</td></tr><tr><td>Rev C</td><td>7/26/02</td><td>Added assembly instructions.</td></tr><tr><td>Rev D</td><td>2/02/16</td><td>Updated format to EXTEX Engineered Products.</td></tr></table> | N/C  | 1/30/97 | Initial release. | Rev A | 11/27/97 | Updated Format. | Rev B | 1/23/01 | Updated Format. | Rev C | 7/26/02 | Added assembly instructions. | Rev D | 2/02/16 | Updated format to EXTEX Engineered Products. |
| N/C                    | 1/30/97  | Initial release.                             |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| Rev A                  | 11/27/97   | Updated Format.                              |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| Rev B                  | 1/23/01  | Updated Format.                              |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| Rev C                  | 7/26/02  | Added assembly instructions.                 |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |
| Rev D                  | 2/02/16  | Updated format to EXTEX Engineered Products. |         |                  |       |          |                 |       |         |                 |       |         |                              |       |         |  |

**Inspection limits & Repair T-006**

**A23008020 & E23008020 Tie Bolt, Turbine Assembly  
Inspection and Rework Limits**

Replace and scrap ANY Tie Bolt that was part of a failed or damaged turbine rotor assembly.

**Installation:**

**CAUTION: Never tighten the gas producer rotor spanner nut to more than 350 in-lb of torque.**

1. Thoroughly clean the tie bolt threads with acetone or MEK if necessary to insure no debris is present.
2. Measure and record tie bolt free state length, P/N and S/N in the Inspection-Maintenance-Overhaul record, Turbine Assembly Section of the log book.
3. Apply a thin coat of Never-Seez Nickel Special to the threads of the tie-bolt spanner nut, nut mute and nut thrust face.
4. Tighten the tie bolt spanner nut to obtain .014-.015 in. bolt elongation without exceeding 350 in-lb torque. Replace spanner nut if .014-.015 in. stretch is not obtained prior to reaching 350 in-lb. Torque limit.
5. Loosen spanner nut and measure bolt free-state length. Replace if length is greater than .002 in. greater than the original length.
6. Tighten the tie bolt spanner nut to obtain .014-.015 in. bolt elongation without exceeding 350 in-lb of torque.

| Condition                            | Service Limit   | Repair Limit   | Corrective Action  |
|--------------------------------------|---|--|--|
| <b>Cracks, visual and FPI*</b>       | Cracks are not acceptable.  | No Repair.   | Replace Tie Bolt.  |
| <b>Worn, Fretted or Pitted Mutes</b> | Minimum Mute diameter: 0.3125 inch.<br>Pitting is not acceptable.   | Minimum Mute diameter that can be repaired: 0.3125 inch. | Replace Tie Bolt when Service Limit is exceeded.<br><b>OR</b><br>Plate mute to Figure 1 dimensions per approved procedure. |
| <b>Stretched Tie Bolt</b>            | Maximum length increase: 0.002 inch (Change in uninstalled length from previous uninstalled length recorded at last Tie Bolt installation.)<br>or if free length exceeds 6.885 in. ** | No Repair.   | Replace  |

**NOTES:**

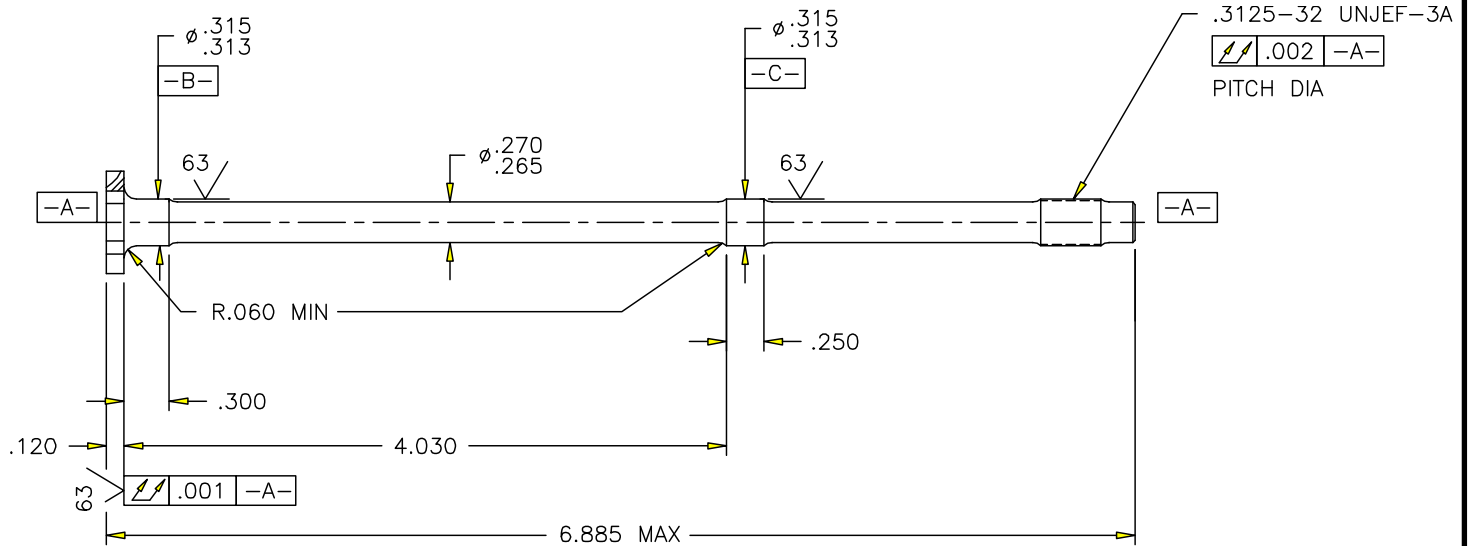
\* FPI per approved Water Washable technique.

\*\* If Tie Bolt length increase cannot be determined, replace if uninstalled length exceeds 6.885 inch.

**TABLE 1**

**Inspection limits & Repair T-006**

**A23008020 & E23008020 Tie Bolt, Turbine Assembly  
Turbine Tie Bolt Dimensional Limit**



DATUM AXIS -A- ESTABLISHED BY MUTE DIAS. B AND C.

**FIGURE 1**