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SERVICE DIRECTIVE BULLETIN

DATE: June 20, 2018

1. SUBJECT: Rod End Inspection

2. MODEL: TH-28, 480, and 480B

3. EFFECTIVITY: All S/N

4. BACKGROUND:

Enstrom has received a report of a failed rod end bearing assembly of one of the hydraulic damper assemblies of the main rotor system. Analysis of the rod end revealed corrosion in the root of the threads.

This Service Directive Bulletin (SDB) requires an inspection for corrosion in the threads of the rod end bearing assemblies that are installed in the main rotor hydraulic damper assemblies.

5. COMPLIANCE:

If previously complied with upon the initial release of this SDB or if the rod end is new, at the next scheduled 100 hour/annual inspection, inspect all P/N ECD091-1 rod end bearing assemblies for corrosion in accordance with paragraph 6.

If not previously complied with upon the initial release of this SDB, within 5 hours time-in-service, inspect all P/N ECD091-1 rod end bearing assemblies for corrosion in accordance with paragraph 6.

See also paragraph 13 regarding repetitive action.

6. INSPECTION:

NOTE

Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual (MM).

6.1 Remove the damper assembly and remove the rod end assembly (3 total rod end assemblies).

6.1.1 Remove the damper assembly in accordance with MM paragraph 9-26.

6.1.2 Remove the rod end bearing assembly from the damper assembly in accordance with MM paragraph 9-27, Step A.

6.1.2.1 If the rod end and piston rotate together, use tool T-0005 to hold the piston.

6.2 Turn the jam nut down to enable inspection of 1-inch of thread length from the shank of the banjo.

NOTE

Remove any grime from the thread root with a non-metallic brush, pick, or similar tool.

6.3 Using a bright light source and magnifying glass (10X or greater), inspect for corrosion in the root of the thread (Figure 1c).

6.3.1 If corrosion is evident, replace the rod end before further flight.

6.3.1.1 Replace with an airworthy rod end treated with a corrosion inhibitor prior to installation (refer to paragraph 7 for parts). Apply the corrosion inhibitor in accordance with paragraph 6.4.

6.3.2 If no corrosion is evident, proceed to step 6.4.

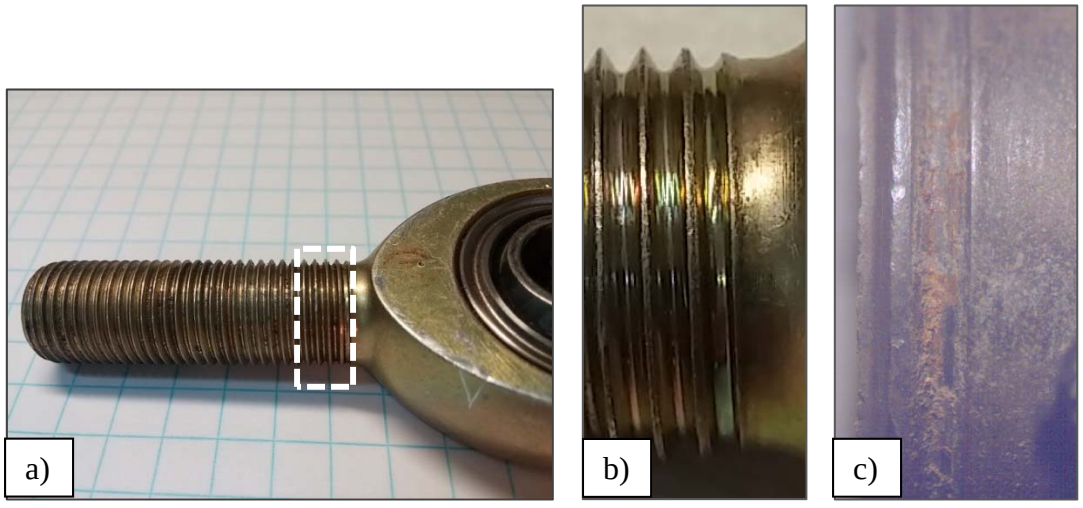

Figure 1. a) Rod end assembly (removed for clarity), area within the box is representative of photo b) and c) area); b) Airworthy rod end (as installed); c) unairworthy rod end with thread root corrosion.

NOTE

Refer to the Repetitive Action requirements (paragraph 13) prior to selecting or applying a corrosion inhibitor.

6.4 Apply corrosion inhibitor to the entire thread length of the rod end.

6.4.1 Approved corrosion inhibitors include:

6.4.1.1 MIL-PRF-23377 Type I Class C2 Epoxy Primer

6.4.1.2 MIL-PRF-23377 Type I Class N Epoxy Primer

6.4.1.3 ACF-50, or equivalent

CAUTION

Do not allow the epoxy primer to dry prior to assembly of the rod end.

CAUTION

Mask the bearing area prior to applying corrosion inhibitor to avoid damaging the bearing.

NOTE

Follow the manufacturer's instructions for corrosion inhibitor application.

6.4.2 Remove the jam nut to expose all the threads.

6.4.3 Refer to the manufacturer's instructions for application.

6.5 Install the rod end bearing assembly for each of the three hydraulic damper assemblies and install the damper assemblies.

6.5.1 Install the jam nut.

NOTE

Installing the nut will tend to wipe away inhibitor that was freshly applied. Re-apply to ensure complete coverage.

6.5.2 Re-apply corrosion inhibitor to the threads below the jam nut, as required.

6.5.3 Assemble the damper assembly in accordance with MM paragraph 9-30, Steps S through T.

6.5.4 Re-apply corrosion inhibitor to the threads above the jam nut, as required.

6.5.5 Install the damper assembly in accordance with MM paragraph 9-31.

6.6 Perform a maintenance ground run in accordance with TH-28/480 Series MM paragraph 4-60.

7. PARTS: For replacement:

Description	Acceptable Part Number	Quantity
Rod End Bearing Assembly	ECD091-1	3 (A/R)

8. SPECIAL TOOLS: Tool T-0005

9. MAN-HOURS: Inspection – 1 hour

10. WARRANTY: Per Enstrom Helicopter Warranty policy

11. WEIGHT CHANGE: N/A

12. LOG BOOK ENTRY: Enter compliance with this SDB in the aircraft maintenance records.

13. REPETITIVE ACTION:

13.1 If corrosion inhibitor such as ACF-50 (or equivalent) was applied upon re-assembly, inspect the rod end threads for corrosion in accordance with paragraph 6 every bi-annual inspection.

13.2 If MIL-PRF-23377 Type I Class 2C or Class N Epoxy Primer was applied upon re-assembly, no repetitive action is required.