



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. T-041

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DATE: November 28, 2011

1. SUBJECT: Mounting Hardware Inspection

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

3. EFFECTIVITY: S/N 5147 and prior

4. BACKGROUND:

Enstrom has received a report of inadequate thread engagement in the hardware used to install the collective torque tube bearing supports to the keel structure. This was initially discovered on an aircraft when the pilot side bearing support appeared to have movement. Upon further examination, the movement was caused by a lack of thread engagement of an attachment bolt with the nutplate, which counteracted the self-locking feature of the nutplate and allowed the bolt to lose torque. Enstrom has modified the installation incorporating longer bolts to ensure sufficient thread engagement.

During the examination it was also observed that the hardware used to mount the aft cabin door frame support brackets had inadequate thread engagement as well.

This Service Directive Bulletin (SDB) requires a one-time inspection of the collective torque tube bearing support installations as well as the aft cabin door frame support bracket installations for sufficient thread engagement.

5. COMPLIANCE:

Inspect the security of the mounting hardware installation points at the next 100-hour/annual inspection for the collective torque tube bearing supports and the aft cabin door frame support brackets.

6. INSPECTION:

NOTE: Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual.

6.1 Remove the keel access panels in accordance with paragraph 8-14.B of the maintenance manual.

6.2 Locate the installation bolts or screws and nutplates under the cabin floor for the following installations:

6.2.1 Collective torque tube bearing supports (*Figure 1a and 1b*)

6.2.2 Aft cabin door frame support brackets (*Figure 1a and 1c*)

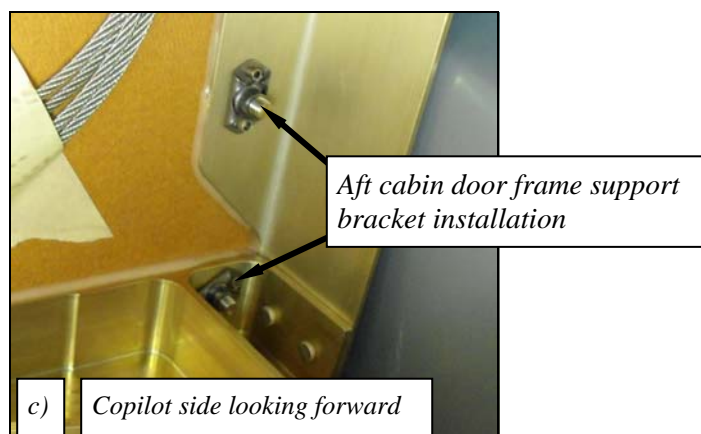
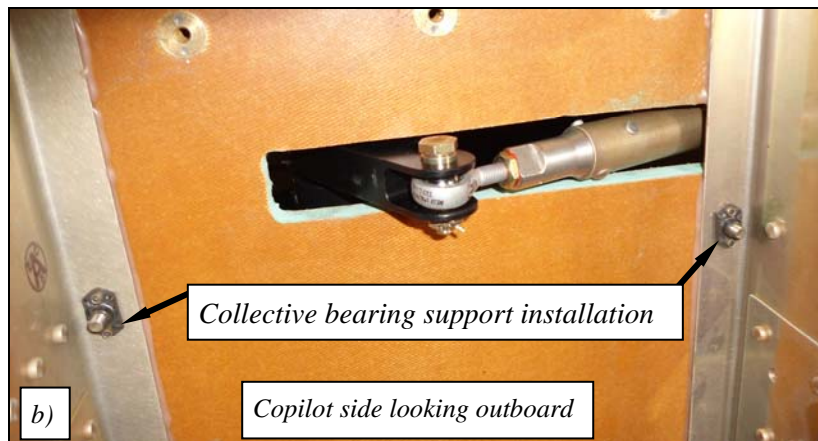
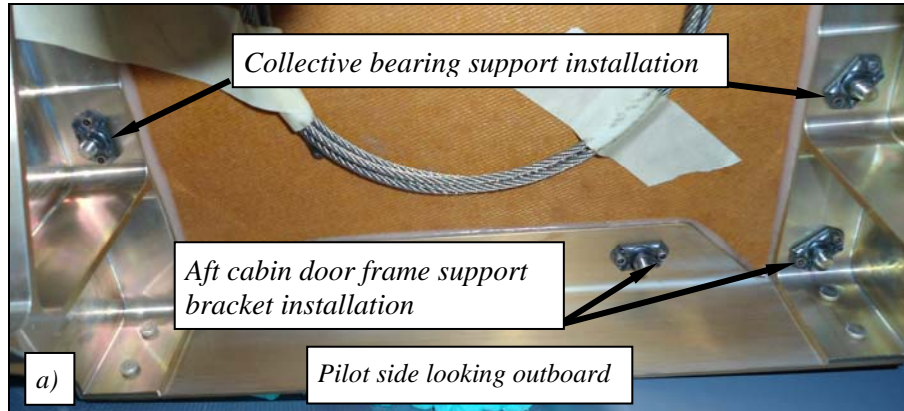


Figure 1. View of cabin floor underside and surrounding keel structure: *a)* aft cabin door frame support bracket installation and collective torque tube bearing support installation (pilot side looking outboard), *b)* collective torque tube bearing support installation (copilot side looking outboard), and *c)* aft cabin door frame support bracket installation (copilot side looking outboard).

- 6.3 Inspect all bolt or screw attachments for complete thread engagement. At least one thread should be exposed beyond the nut. *Figure 2a* shows an example of inadequate thread engagement. *Figure 2b* shows an example of adequate thread length.

NOTE: The nutplate may contain residue, which may obscure the threads. Use a sharp pointed tool to remove any foreign material to expose the bolt or screw shank.

NOTE: Too much thread sticking out of the nutplate may indicate the bolt or screw is too long and the shank is binding in the nutplate threads.

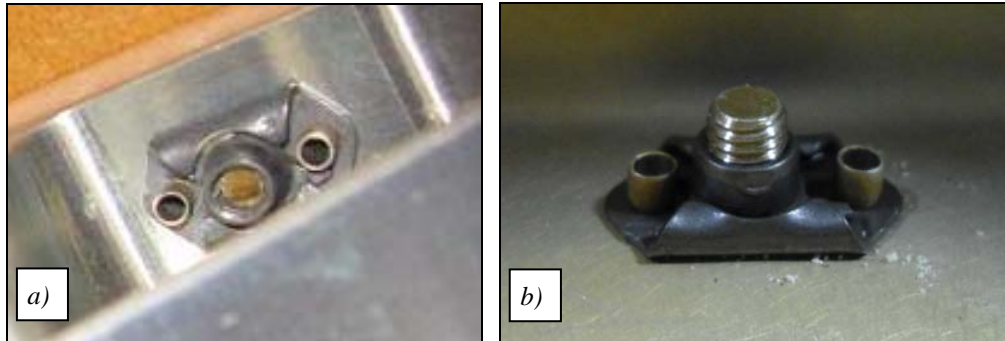


Figure 2. Thread engagement: *a)* inadequate thread engagement and *b)* adequate thread engagement.

- 6.4 If thread engagement is adequate, no additional inspection is required. Re-install the access panels.
- 6.5 If thread engagement is not acceptable, proceed to paragraph 6.6 to replace the bolt(s) or screw(s).
- 6.6 Collective bearing supports
- 6.6.1 Replace the applicable bolt(s) in accordance with *Figure 4*.
- 6.7 Cabin support brackets
- 6.7.1 Aft cabin support brackets: Use P/N MS27039-1-16 for the location with the sheet metal bracket. Use P/N MS27039-1-17 for the location with the machined fitting. See *Figure 3*.

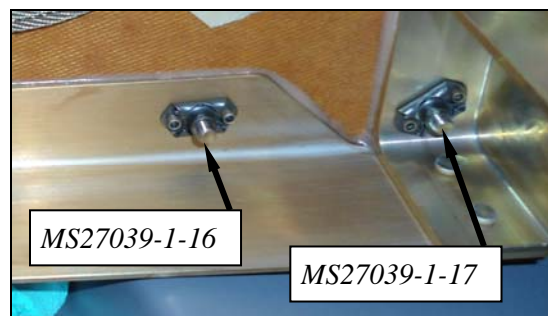
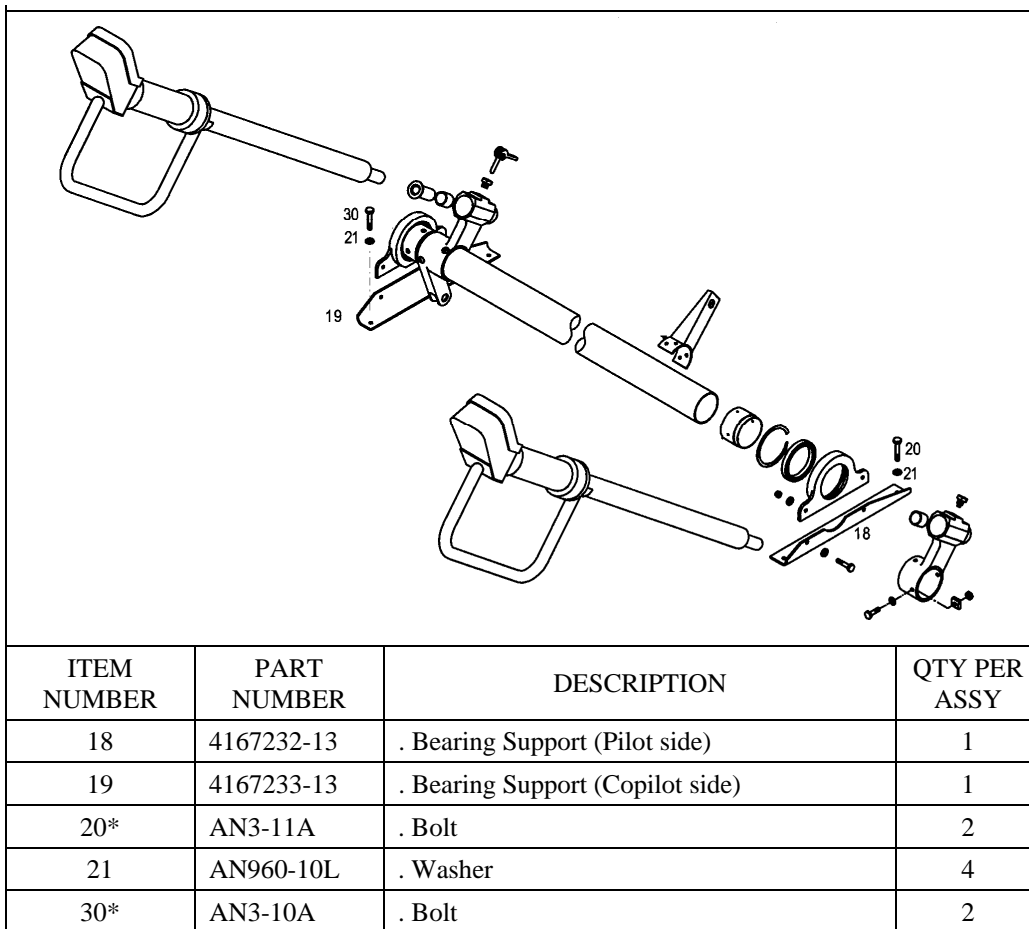


Figure 3. Aft cabin support bracket installation

- 6.8 Re-install the access panels in accordance with paragraph 8-17.B of the maintenance manual.



* Replacement bolts authorized by this Service Directive Bulletin. Other parts remain unchanged.

Figure 4. Collective Torque Tube Installation

7. PARTS: See Figure 4
8. SPECIAL TOOLS: None
9. MAN-HOURS: Inspection – 15 minutes
10. WARRANTY: Per Enstrom Warranty Policy
11. WEIGHT CHANGE: None
12. LOG BOOK ENTRY:
If bolts or screws are replaced, record the modification in detail as required for maintenance actions.
13. REPETITIVE ACTION: None