



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. T-064

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DATE: August 25, 2020

1. SUBJECT: Tailcone Bulkhead Inspection
2. MODEL: 480, 480B
3. EFFECTIVITY: All S/N
4. BACKGROUND:

Three instances of cracks in the tailcone bulkhead have been reported during field inspections. The cracks are located in the aft bulkhead near the right side lobe of the lower clamp assembly.

This SDB requires inspection for cracks and fretting/wear in the bulkhead and repair of the bulkhead if necessary. If the bulkhead is not cracked, it also allows installation of a reinforcing doubler at the operator's discretion.

5. COMPLIANCE:

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

- 5.1 Within the next 10 flight hours, perform a visual inspection of the bulkhead.
 - 5.1.1 Using a suitable light source, inspect the bulkhead in the areas shown in Figure 1.
 - 5.1.2 Examples of a cracked bulkhead are shown in Figure 2 and Figure 3. In both examples, there is a crack on the right side near the lobe of the lower clamp assembly.
 - 5.1.3 If no crack is detected, no further action is required at this time. A more detailed inspection per paragraph 5.2 is required at the next 100 hour/annual inspection.
 - 5.1.4 If a crack is detected, stop drill ($\varnothing.094$ through the bulkhead) both ends of the crack. If one end of the crack is obscured by the grommet, there is no need to stop drill the hidden end of the crack. The bulkhead must be inspected and repaired in accordance with paragraphs 5.2 and 6 at or before the next 100 hour/annual inspection.
 - 5.1.5 If the crack extending down from the clamp is not moving toward the control cable hole or if the crack extending up from the clamp is more than 1 inch (25 mm) long, contact Enstrom Product Support.

- 5.1.6 Using a Sharpie™ marker or equivalent, with a color that contrasts with the bulkhead, make a mark approximately .5-inch (12 mm) long, perpendicular to the crack, though the end of the crack.
- 5.1.7 Monitor the crack during preflight. If the crack extends beyond the stop drill hole, contact Enstrom Product Support.

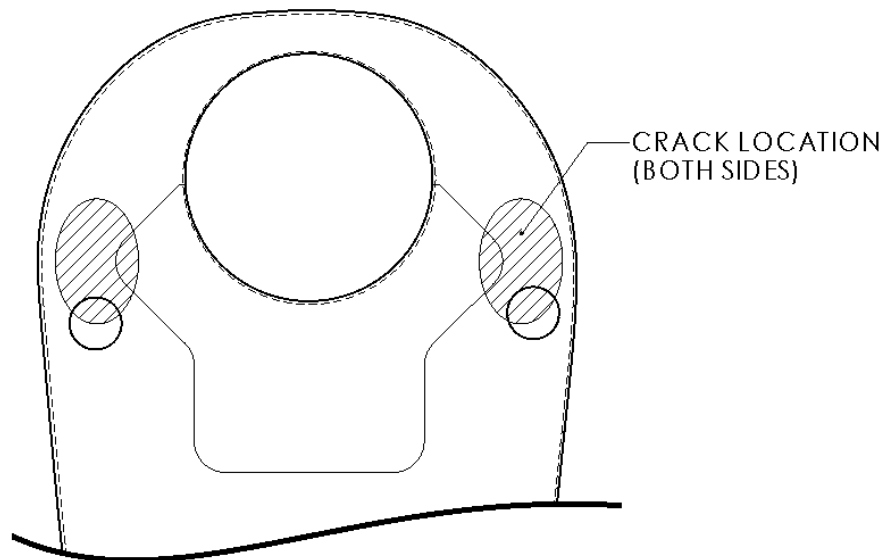


Figure 1. Crack Inspection Areas

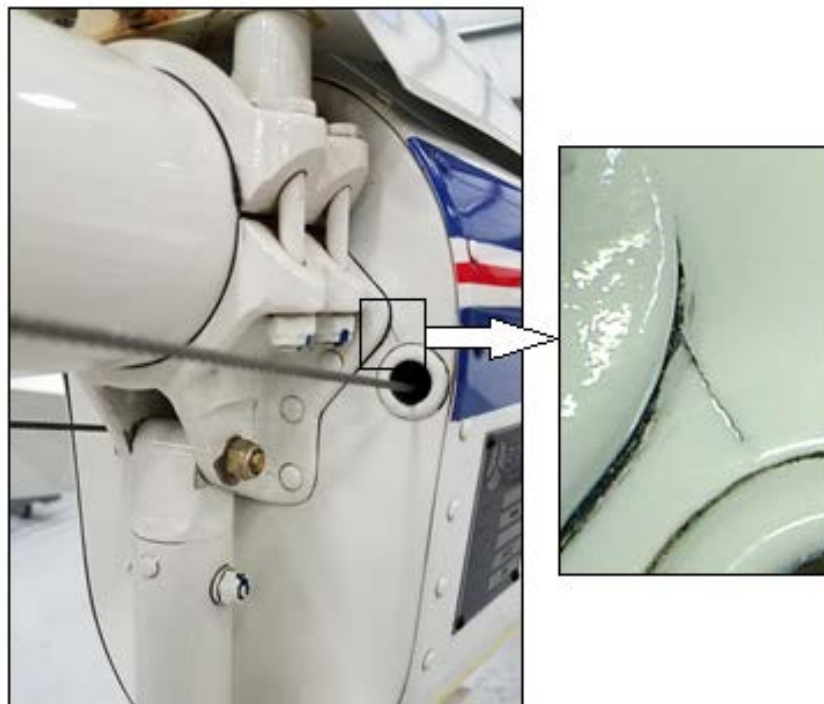


Figure 2. Crack in Aft Tailcone Bulkhead (Example 1)

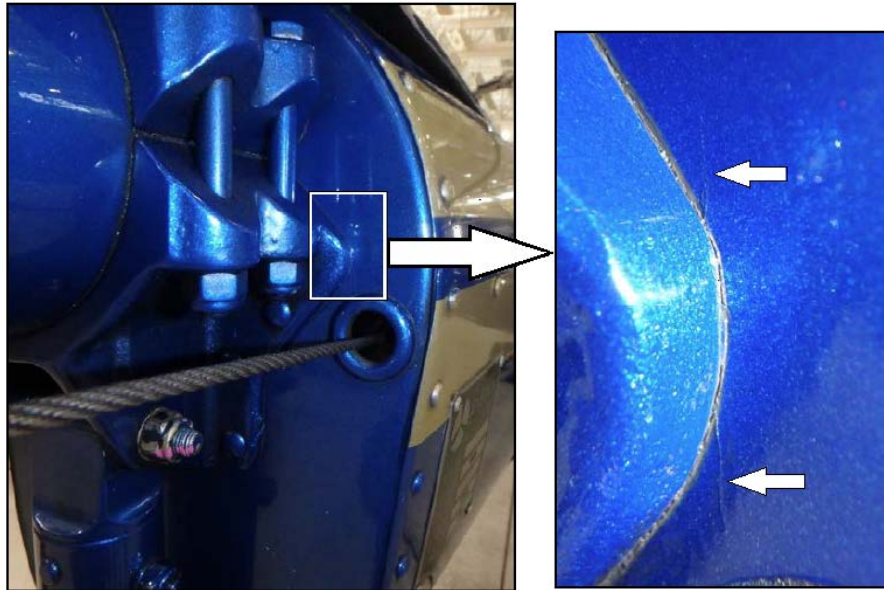


Figure 3. Crack in Aft Tailcone Bulkhead (Example 2)

5.2 At or before the next 100 hour/annual inspection, inspect the bulkhead for cracks as follows:

5.2.1 Remove the tail rotor extension tube in accordance with MM paragraph 8-109.

5.2.2 Remove the P/N 28-11215 clamp and set aside.

5.2.2.1 Drill out the rivets that mount the P/N 28-11215 clamp to the bulkhead.

CAUTION

Take care not to damage the rivet holes as they will be re-used.

5.2.3 Using a suitable light source and a mirror as required, inspect the interior surface of the bulkhead for cracks in the areas indicated in Figure 1.

5.2.4 Using a 10-power magnifying glass and a suitable light source, inspect the exterior surface of the bulkhead for cracks in the areas indicated in Figure 1.

5.2.5 Inspect the bulkhead for fretting/surface wear under P/N 28-11215 clamp.

5.2.6 If no crack or no fretting or wear is detected, no further action is required.

5.2.6.1 At the operator's discretion, install a P/N 28-11207-11 doubler per paragraph 6.2, or

5.2.6.2 Reinstall the clamp per 6.2.1.7 and 6.2.2.

5.2.7 If the bulkhead is cracked or fretting or wear is detected, the bulkhead must be repaired and a doubler installed in accordance with paragraph 6 before returning the aircraft to service.

- 5.2.7.1 If the crack extending down from the clamp is not moving toward the control cable hole or if the crack extending up from the clamp is more than 1 inch long, contact Enstrom Product Support.

6. REPAIR:

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

6.1 Crack or Fretting/Wear Repair:

6.1.1 Cracks

- 6.1.1.1 Stop drill (\varnothing .094 (#42 drill bit)) both ends of any crack.

6.1.2 Fretting/Wear:

- 6.1.2.1 Blend out damage. Depth of blended area must not exceed .008 inch/.20 mm.
- 6.1.2.2 Cover blended area with a chromate conversion coating (MIL-DTL-81706) (paragraph 7.1.2).

6.2 Doubler Installation:

6.2.1 Install P/N 28-11207-11 doubler (Figure 4).

- 6.2.1.1 Remove grommets from tail rotor cable holes.
- 6.2.1.2 Using a Sharpie™ marker or equivalent, mark one face of the doubler “aft” to maintain the orientation of the doubler throughout this process.
- 6.2.1.3 Center the doubler on the exterior face of the bulkhead.
- 6.2.1.4 Match drill the rivet holes \varnothing .097/.101 (#40 drill bit) from the doubler to the bulkhead (10 plcs).
- 6.2.1.5 Position the doubler on the interior face of the bulkhead. Line up the rivet holes to match the drilled holes in the bulkhead.
- 6.2.1.6 Cleco the doubler in place. Match drill the clamp rivet holes \varnothing .164/.164 (#20 drill bit) from the bulkhead to the doubler (4 plcs).
- 6.2.1.7 Enlarge the holes for mounting the P/N 28-11215 clamp to \varnothing .164/.168 (#19 drill bit) (7 plcs).
- 6.2.1.8 Enlarge the rivet holes for mounting the P/N 28-11207-11 doubler to the bulkhead (\varnothing .129/.132, #30 drill bit) (10 plcs).
- 6.2.1.9 Use a Sharpie™ marker or equivalent to transfer the grommet hole to the doubler on both sides, if required.

- 6.2.1.10 Remove the Clecos holding the doubler to the bulkhead. Cut/file along the grommet hole line and deburr entire doubler and bulkhead as required. Coat exposed raw metal with chromate conversion coating.
- 6.2.1.11 Position the doubler on the interior face of the bulkhead. Line up the holes in the doubler to the corresponding holes in the bulkhead. Install the rivets as depicted in Figure 4 (10 plcs).
- 6.2.2 Install P/N 28-11215 clamp using the hardware depicted in Figure 4.
- 6.2.3 Install P/N NAS1368N8 grommets.
- 6.2.3.1 Measure the bulkhead to determine the grommet grip length.
- 6.2.4 Repaint bulkhead as required.
- 6.2.5 Install the extension tube in accordance with MM paragraph 8-112.

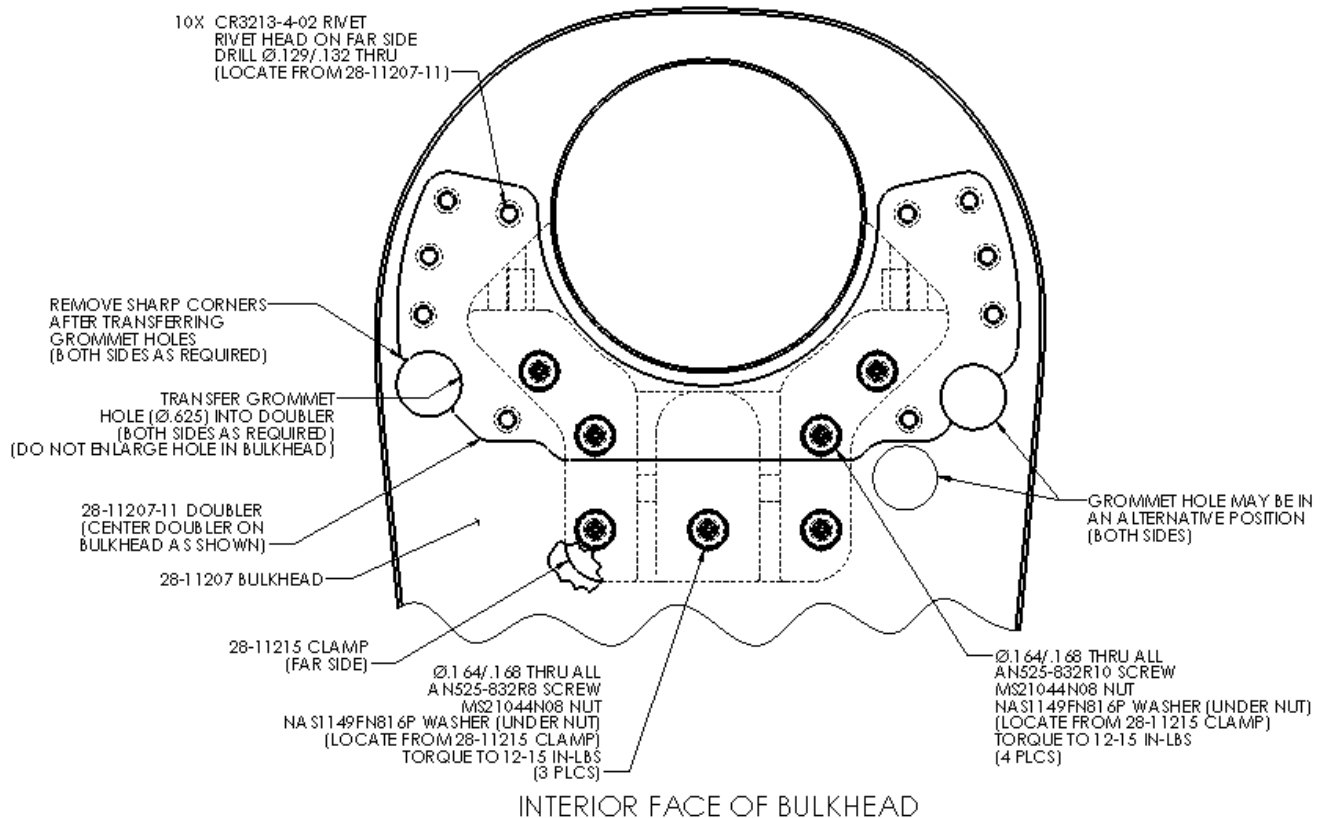
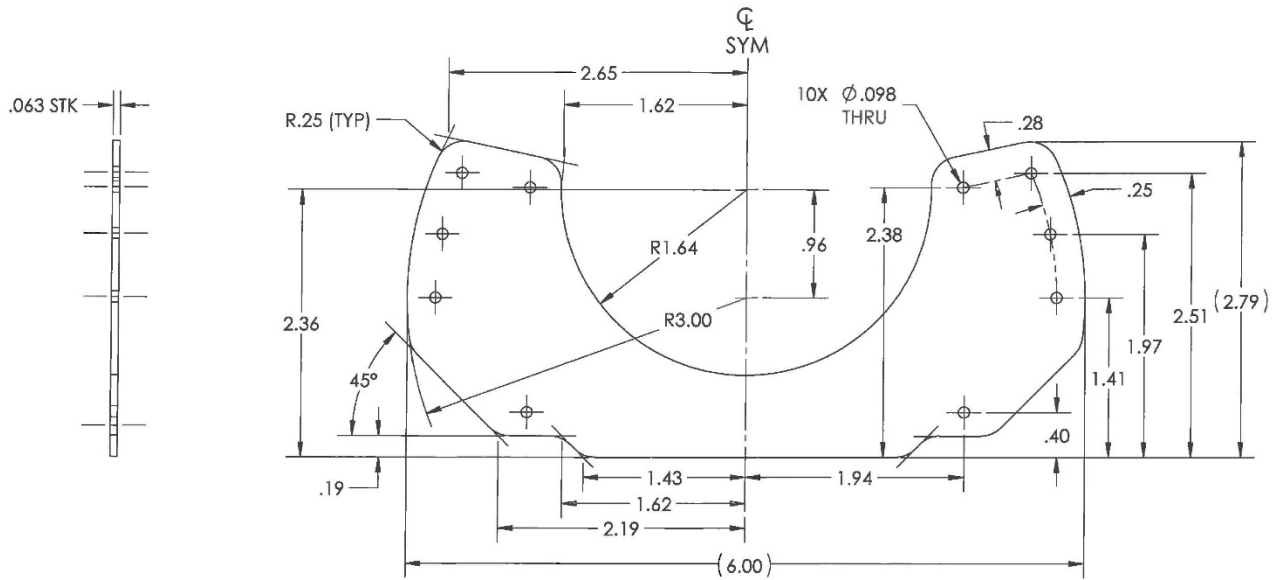


Figure 4. Aft Bulkhead Doubler Installation



Material	AL 2024-T3; AMS-QQ-A-250/5 or AMS-QQ-A-250/4 (Sheet)
Finish	MIL-DTL-81706 (Alodine, Iridite, or equivalent)

Figure 5. Dimensions and Specifications of P/N 28-11207-11 Doubler (Dimensions in Inches)

7. PARTS:

7.1 Parts needed for doubler installation:

Part Number	Description	Quantity
SDB-T064-KIT	.Doubler Kit	1
28-11207-11	.. Doubler	1
AN525-832R10	.. Screw	4
AN525-832R8	.. Screw	3
CR3213-4-02	.. Rivet	10
MS21044N08	.. Nut	7
NAS1149FN816P	.. Washer	7
NAS1368N8A	.. Grommet	1 (as required)
NAS1368N8B	.. Grommet	2 (as required)

7.1.2 Consumables (must be locally procured):

Description	Name or Brand
Chemical conversion coating	MIL-DTL-81706 (Alodine, Iridite, or equivalent)

7.2 Parts needed for reinstallation of 28-11215 clamp if not installing the doubler:

Part Number	Description	Quantity
AN525-832R8	. . Screw	7
MS21044N08	. . Nut	7
NAS1149FN816P	. . Washer	7

8. SPECIAL TOOLS: Cherrymax ® G27 Model Riveter (or similar), NAS1368 grommet installation tool
9. ESTIMATED MAN HOURS: Initial Inspection per paragraph 5.1: 1 hour; 100 Hour Inspection per paragraph 5.2: 4 hours; Bulkhead Repair/Doubler Installation: 6.5 hours
10. WARRANTY: Per Enstrom warranty policy
11. WEIGHT CHANGE: N/A
12. LOG BOOK ENTRY: Enter compliance with this Service Directive Bulletin.
13. REPETITIVE INSPECTIONS:
 - 13.1 Perform an external visual inspection at 100 hour intervals per 5.2.4.
 - 13.2 Installing the P/N 28-11207-11 doubler terminates the repetitive inspection requirement.