



SERVICE INFORMATION LETTER

SIL T-054
Revision 1

DATE: November 16, 2022

1. SUBJECT: Fuel Cell Foam Baffle Maintenance Instructions
2. MODEL: 480, 480B
3. EFFECTIVITY: S/N 5007, 5013 and Subsequent (Equipped with P/N 4122052 Fuel Cells)
4. BACKGROUND:

This SIL (Service Information Letter) defines the maintenance aspects for the foam baffle assemblies installed in Enstrom fuel cells.

Revision 1 modifies the Effectivity description (para. 3), clarifies the flange plate installation procedure (para. 6.3.4) and includes references to SIL T-074 for other applicable fuel cell information (para. 6.4.4 and para. 7).

5. COMPLIANCE:

Use the procedures defined in paragraph 6 of this Service Information Letter (SIL) when removing, inspecting, and installing the fuel cell foam baffle assemblies. Replacement parts shall be in accordance with paragraph 7.

6. PROCEDURE:

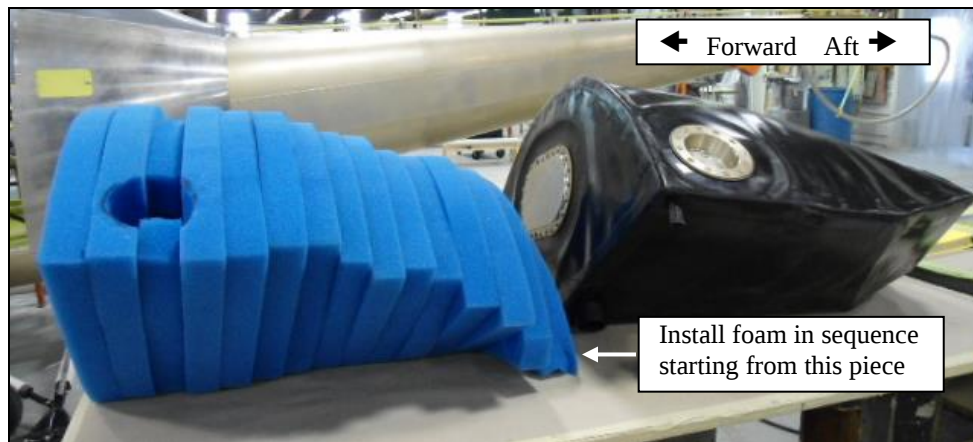
Note: Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual.

Note: Numbers in parenthesis refer to the item number in the TH-28/480 Series Illustrated Parts Catalog (Figure 5-1) or to the applicable paragraph in the TH-28/480 Series Maintenance Manual, unless otherwise noted.

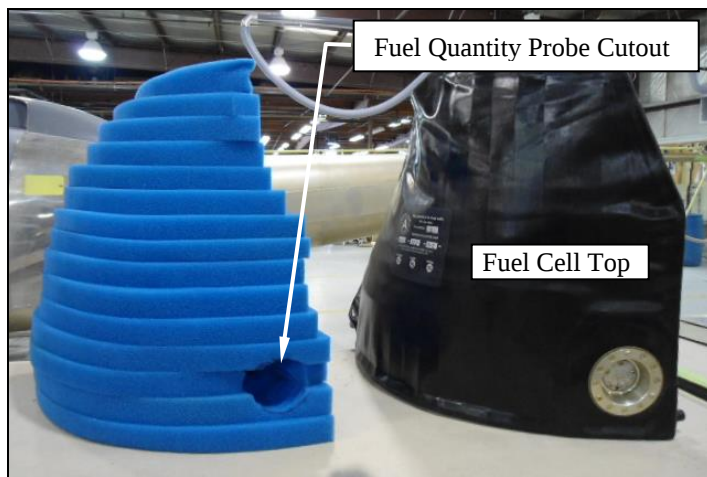
- 6.1 Removal – Foam Baffle Assembly

- 6.1.1 If removing the foam baffle assembly in an installed fuel cell, remove the applicable fuel cell from the aircraft (paragraph 10-4).

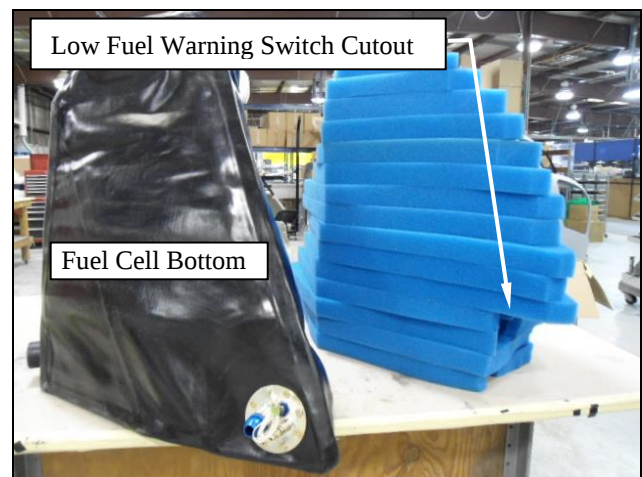
- 6.1.2 If a left-hand fuel cell, remove dip stick tube (26) (if not previously removed in accordance with SIL T-062).
- 6.1.3 If a right-hand fuel cell, remove the fuel quantity probe (14) (paragraph 10-48).
- 6.1.4 Remove the flange plate (4) by removing safety wire, bolts (6), and washers (6). Discard the gasket (3).
- Note: If reinstalling the foam baffles, retain the sequence of the baffles during removal to simplify reinstallation.**
- 6.1.5 Remove the foam baffles from the fuel cell and place on a clean surface. Stack the foam baffles in sequence to simplify reinstallation. Cover the foam baffles to prevent contamination.
- 6.2 Inspection – Foam Baffle Assembly
- 6.2.1 Inspect the foam baffles for contamination (such as fungus) and deterioration (debris).
- 6.2.1.1 If lightly contaminated, clean as necessary with suitable dish detergent. Rinse and dry thoroughly.
- 6.2.1.2 If heavily contaminated, replace the foam baffle assembly. See paragraph 7.
- 6.2.1.3 If deteriorated, replace the foam baffle assembly. See paragraph 7.
- 6.3 Installation – Foam Baffle Assembly (See *Figure 1* to aid installation)
- Note: The photos in Figure 1 depict an uninstalled foam baffle assembly stacked in the proper sequence for installation. A finished fuel cell with a foam baffle assembly installed is also shown for comparison. The foam baffle assembly consists of 14 or 15 foam layers specifically cut to fit the shape of the fuel cell and the components within the fuel cell.**
- 6.3.1 Lay the fuel cell on a table surface or prop the fuel cell up between two tables with flange plate opening accessible.
- 6.3.2 Install the first foam baffle through the flange plate opening into the bottom of fuel cell. Ensure that the foam is orientated to match the shape of the fuel cell.
- 6.3.3 Repeat step 6.3.2 for the remaining foam baffles. Ensure the foam baffles are orientated to match the shape of the fuel cell and fit around interior components as applicable.



a) Foam Baffle Assembly, R/H (P/N 4122058-902) and Fuel Cell Assembly, R/H (P/N 4122052-4)



b) Fuel Quantity Probe Cutout



c) Low Fuel Warning Switch Cutout



d) First foam baffle piece to be installed

Figure 1: Foam Baffle Assembly (Right Hand Installation Shown)

6.3.4 Install the flange plate

Note: Ensure that the captive nut plate threads are free of debris or sealant.

Note: Ensure that the sealing surfaces are clean and dry.

6.3.4.1 Install a new gasket (3). If needed, install 2 to 4 studs, hand tight, into the flange ring to hold the gasket in place on the fuel cell.

Note: The studs referenced above are made by removing the heads from appropriate length AN4-XXA bolts and deburring the cut shank.

6.3.4.2 Install the flange plate (4) (raised surface forward) with bolts (6) and washers (5). Torque (25-30 in-lb/2.8-3.4 Nm) in a crisscross torque pattern (for 24 bolts), making three full rounds to ensure proper gasket seating. Remove the studs as required when installing the bolts and washers.

6.3.4.3 Ensure that there is no movement of the washers. If there is movement, back out the bolt and recheck the threads for debris or sealant. Re-install and torque

6.3.4.4 Allow several hours (preferably overnight) after installation of the oval flange plate and retorque the hardware.

6.3.4.5 Safety wire bolts (MS20995C20).

6.4 Installation – Fuel Cell

6.4.1 If a right hand fuel cell, install the fuel quantity probe (14) (paragraph 10-51).

6.4.2 Install the fuel cell (paragraph 10-8).

6.4.3 Refer to SIL T-074, latest revision, for additional torquing guidance when installing a fuel cell.

7. PARTS:

Per SIL T-074, latest revision, or Enstrom TH-28/480 Series Illustrated Parts Catalog, Figure 5-1, latest revision

8. CONSUMABLE MATERIALS LIST:

MS20995C20 Safety Wire
Dish Detergent (any brand)

- 9. SPECIAL TOOLS: None
- 10. MAN-HOURS: N/A
- 11. WARRANTY: N/A
- 12. WEIGHT CHANGE: N/A
- 13. LOG BOOK ENTRY: As required for maintenance actions
- 14. REPETITIVE INSPECTIONS: As required in Section 4 of the maintenance manual