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Service Instruction

Service Instruction Number: HF-S-2

Date: October 23, 2015

To: All Owners/ Operators of Helifab Sikorsky S-76 Auxiliary Fuel Tank Installation (STC SR00763DE). This service instruction is applicable for installations in the S-76A,B,C, and D up to and including serial number 761036.

Subject: Rerouting of auxiliary tank vent line if existing hydraulic service ports or existing equipment interfere with installation of vent line per Helifab drawing number HF-S76-I-7.

Approval: The engineering aspects of this service instruction are FAA approved.

Compliance Requirements: At owner /operator discretion

Description:

This service instruction is issued to inform the owners / operators of Helifab's Sikorsky S-76 auxiliary fuel tank installation (STC SR00763DE) of the procedure to be used if existing hydraulic service ports or other installed equipment in the roof of the baggage compartment interfere with the auxiliary tank vent line installation per Helifab drawing HF-S76-I-7. This service instruction is only applicable for installations in the S-76A,B,C, and D up to and including serial number 761036. The procedure defined herein gives the installer of the auxiliary fuel tank instructions on rerouting the auxiliary fuel tank vent line in order to be compatible with existing hydraulic service ports or other existing installations.

Log of Revisions

<i>REV</i>	<i>DATE</i>	<i>DESCRIPTION</i>	<i>PAGES REVISED</i>	<i>PREPARED BY</i>
IR	10/23/2015	Initial Release	1 thru 7	KDS

The auxiliary fuel tank vent installation for Helifab's auxiliary fuel tank installation (FAA STC SR00763DE) is accomplished per Helifab drawing number HF-S76-I-7. Some existing aircraft configurations interfere with the vent installation per Helifab drawing HF-S76-I-7 and require rerouting of the auxiliary fuel tank vent line. For those aircraft which experience this interference, the instructions contained herein should be followed in lieu of the vent line installation defined in Helifab drawing HF-S76-I-7.

General Notes:

1. Fastener installation shall be in accordance with FAA advisory circular number AC 43.13-1B, chapter 7, paragraph 7-1 thru 7-89.
2. All dimensions are in inches unless otherwise shown.
3. Tolerances on dimensions are as follows: .xxx ± 0.010, .xx ± 0.03 .xx ± 0.1
4. Length of fasteners may be increased if required for proper thread engagement.
5. Determine proper fastener length upon installation unless otherwise specified.
6. Ensure vent plumbing does not have any low points that may trap water

Accomplishment Instructions:

1. Remove existing auxiliary fuel tank vent line part number HF-S76-A-6-7 from the auxiliary fuel tank assembly by removing three existing adel clams and loosening the -10 nut attaching the vent line to elbow part number 921110 (see figure 1). Note existing hardware buildup and retain hardware for reinstallation.

NOTE

Ensure all fuel tank openings are properly covered during this procedure to prevent dirt or debris from entering the fuel system.

2. Remove the quick disconnect hose part number 156005-10D0104 and AS5174D1010 union from the aux tank vent line (see figure 2). Discard union PN AS5174D1010.
3. Cut vent line, deburr cut end of vent tube, and flare cut end of tube as detailed in figure 2.
4. Locate two new vent line brackets (PN HF-S76-D-6-26 and HF-S76-D-6-27) to the auxiliary fuel tank assembly and match drill $\varnothing 0.1285$ holes from the vent line brackets to auxiliary fuel tank panel PN HF-S76-D-2-75. Deburr all holes, maximum depth of hole deburr to be 10% of material thickness. (See figure 3)

NOTE

When drilling holes, drill only through upper panel skin. Do not drill deeper than 0.25 inches.

5. Install vent line brackets (PN HF-S76-D-6-26 and HF-S76-D-6-27) to the auxiliary fuel tank assembly using 2 each CR3214-4 rivets (See figure 3).
6. Ensure modified aux tank vent line is free of dirt and debris and install auxiliary fuel tank vent line to auxiliary fuel tank assembly using same hardware removed in step 1 (See figure 3).
7. Install new 90° elbow fitting (PN AN821-10D) to the end of auxiliary fuel tank vent line (See figure 3).
8. Install flex hose removed in step 2 to 90° elbow fitting (PN AN821-10D) (See figure 3).
9. Torque all -10 size flare nuts to 200-350 in-lb (See figure 3).
10. Cut existing left hand (LH) fuel tank vent line as detailed in figure 4 and 5. Deburr cut ends of existing vent line.
11. Install MS20819-12D sleeve and AN818-12D nut to each section of existing vent line and flare cut ends of vent line tube as detailed in figure 5.
12. Ensure existing LH fuel tank vent line is free of dirt and debris and install vent manifold assembly part number HF-S76-A-7-1 to the existing LH fuel tank vent line.

Accomplishment Instructions (Continued from page 3):

13. Torque the -12 nuts to 300-500 lb-in.
14. Cut back cargo compartment trim panel around auxiliary fuel tank vent manifold as required for access.
15. Attach the hose quick disconnect (PN 3755-10), installed to the auxiliary fuel tank vent line, to PN HF-S76-D-7-1 quick disconnect located on vent manifold assembly PN HF-S76-A-7-1.

**Figure 1
Auxiliary Fuel Tank Assembly**

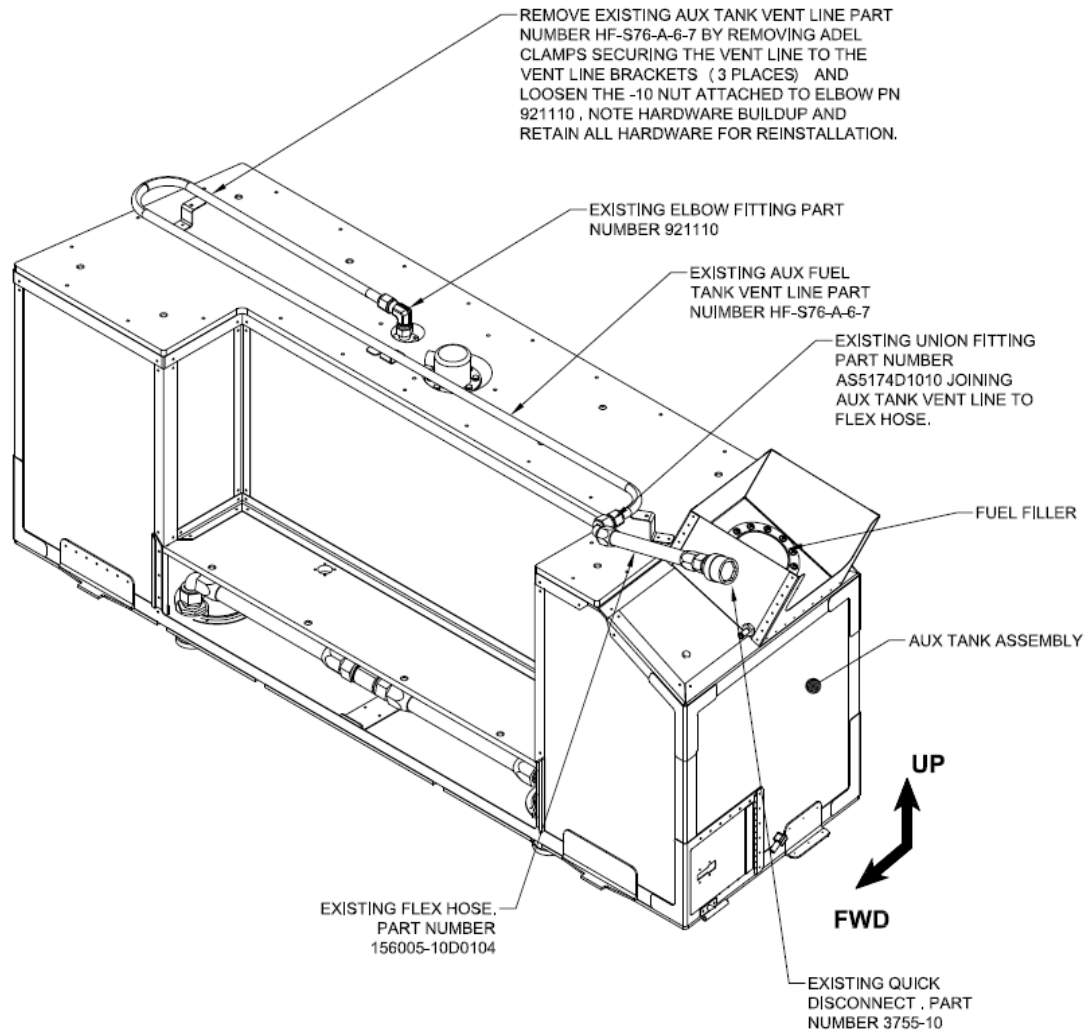


Figure 2
Auxiliary Fuel Tank Vent Line Modification

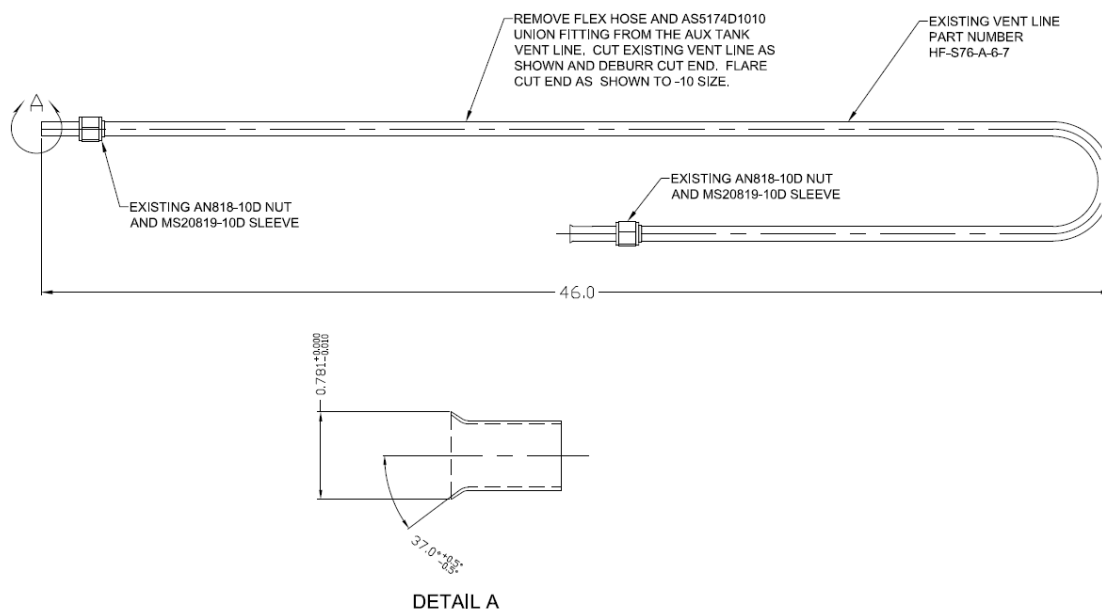


Figure 3
Auxiliary Fuel Tank Vent Line Installation

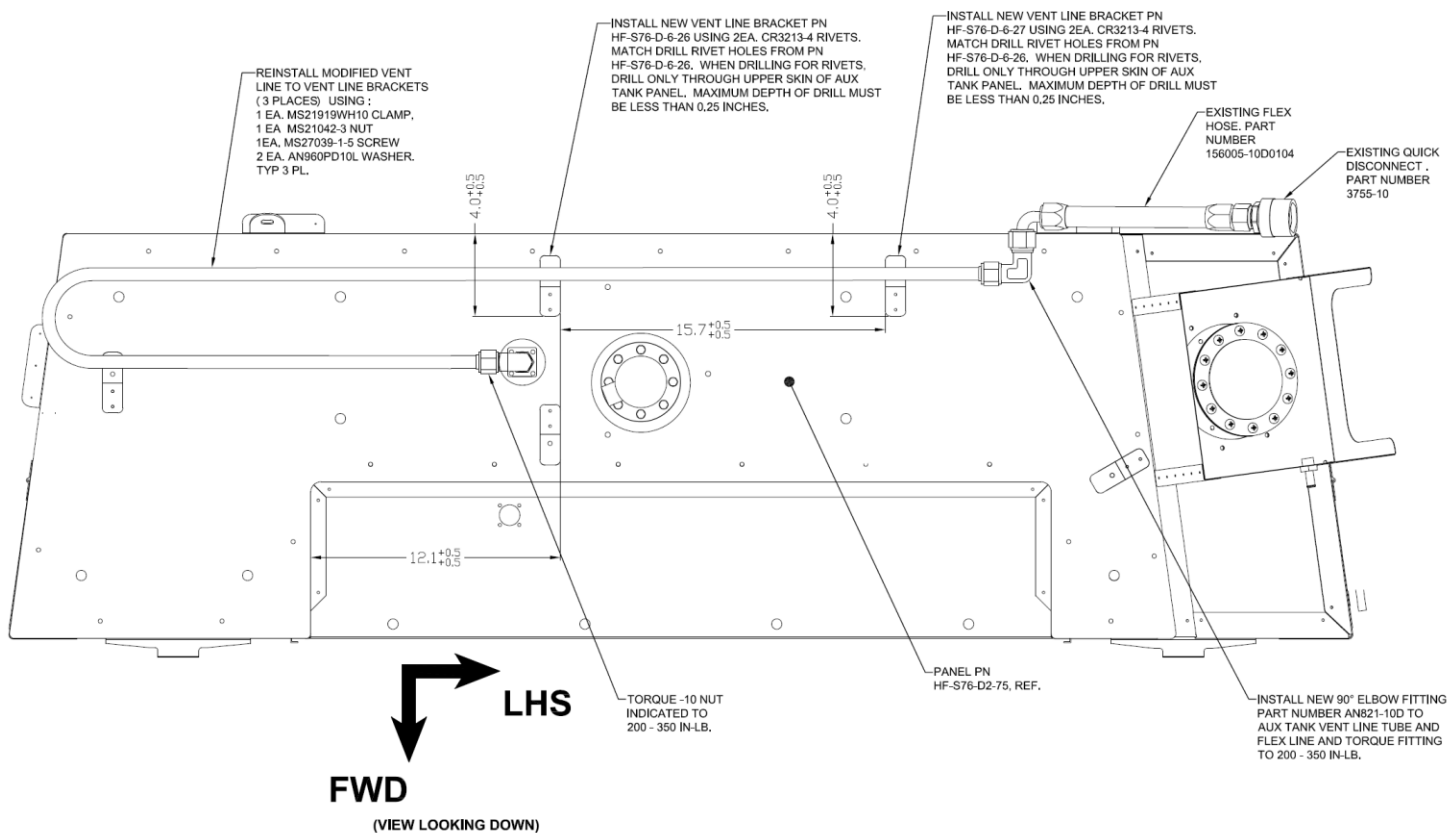


Figure 4
Auxiliary Fuel Tank Vent Manifold Installation

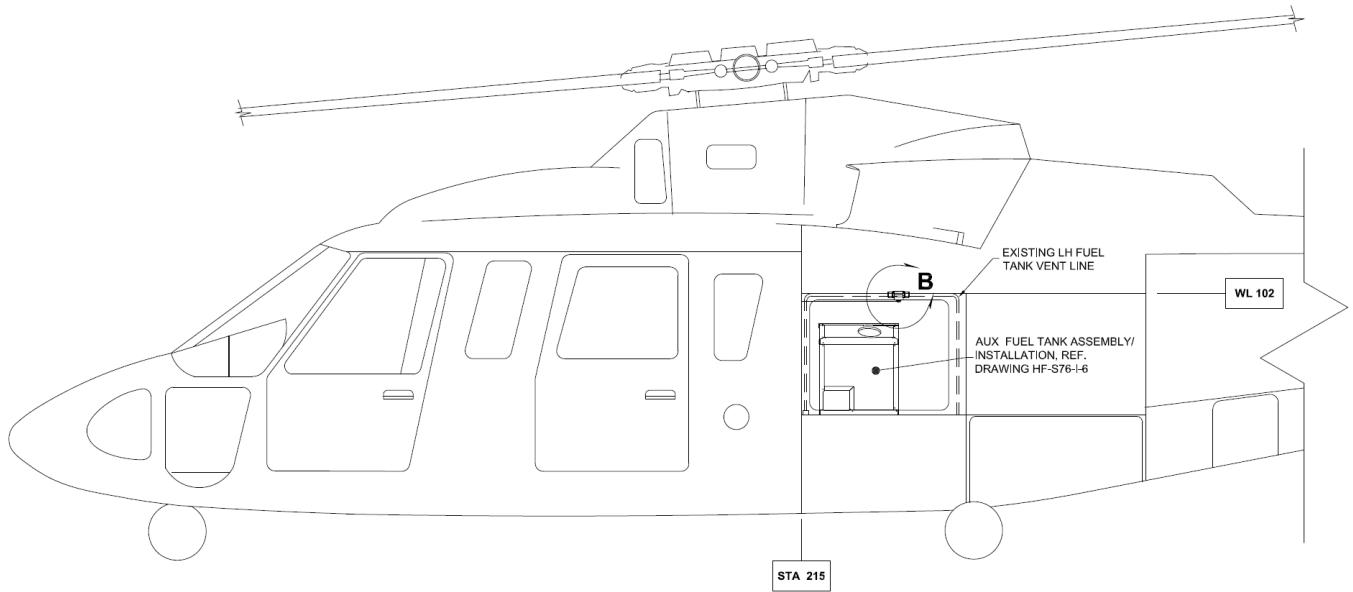


Figure 5
Auxiliary Fuel Tank Vent Manifold Installation

