



SERVICE LETTER

No. 606A

August 23, 1972

(Supersedes and voids Piper Service Letter No. 606, dated February 1, 1972)

Reason for Revision:

Expansion of the Fuel System Inspection and Modification program (as denoted in Service Letter No. 606) to include Aztecs, Serial Nos. 27-2505 to 27-4765 inclusive.

Subject:

Fuel System Inspection and Modification

Models Affected:

PA-23-235, PA-23-250, PA-E23-250 (Six Place) and PA-23-250 (Six Place) Aztec

Serial Numbers Affected:

- I. 27-1 to 27-2504 incl.
- II. 27-2505 to 27-4765 incl.

Compliance Time:

Recommended at the next periodic (100-hour, annual, 500-hour, etc.) inspection interval.

Purpose:

FAA Airworthiness Directive 72-11-1 (supersedes A.D. 70-3-8) requires a fuel system inspection on the above referenced aircraft as follows:

1. Aircraft Serial Nos. 27-1 to 27-2504 incl.; prior to the first flight of each day, check for evidence of fuel leaks along the wing lower surface in the areas of the fuel cells and aft nacelle.
2. Aircraft Serial Nos. 27-2505 to 27-4765 incl.; conduct inspection in the areas described above except that the inspection is to be repeated only at 50-hour intervals.

This Service Letter provides material and instructions to accomplish the following objectives which, when completed, will render further compliance with A.D. 72-11-1 unnecessary:

1. Detailed inspection of the fuel cells, fuel cap, fuel filler doors, fuel lines and fittings for possible leaks;
2. Resealing of the wing internal fuel cell cavity;
3. Installation of fuel cell vent drain kit; and
4. Modification to existing fuel cell wing cavity drains.

(over)

Purpose: (continued)

NOTE: The detailed inspection of the fuel cells and resealing of the wing internal fuel cell cavity referenced above does not apply to aircraft Serial Nos. 27-2505 to 27-4765 incl.

Instructions:

- I. Applies to Aircraft Serial Nos. 27-1 to 27-2504 incl.:
 - A. Remove fuel cells from wing cavity in accordance with Aztec Service Manual, Section 9-5, "Removal of Fuel Cells."
 1. Check for leakage in accordance with Aztec Service Manual, Section 9-12, "Testing Fuel Cells."
 - a. If leaks appear, repair (reference Service Manual, Section 9-11, "Repair of Cell"), clean (Section 9-6) and reinstall (Section 9-9) or replace with new cell(s).
 - b. If no leakage appears, clean and re-install cell(s), reference Aztec Service Manual, Sections 9-6 and 9-9, respectively.
 - B. Check condition of fuel cap assemblies, especially the rubber expandable seal portion. Caps showing indications of deterioration or hardening (of seal should be replaced).
 1. Be sure to adjust caps to achieve snug fit in the filler neck.
 - C. Inspect the fuel cell filler cover plate gasket for evidence of aging, hardening or deterioration; replace gasket if any of these conditions are noted.
 1. Check fit of cover plate in relation to wing surface when closed; cover plate should fit flush with wing surface.
 - D. Check fuel lines and fittings for integrity.
 1. Fuel lines showing evidence of damage or possible splitting, and loose or damaged fittings should be replaced.
 - E. Applies only to aircraft with anti-icing fuel cell vents installed; install Fuel Cell Vent Drain Kit in accordance with instructions contained in Fuel Cell Vent Drain Kit, Piper Part No. 760 577 (reference Material Required, below).
 - F. Reseal the wing internal fuel cell cavity in accordance with attached sketch/instructions "A."

Instructions: (continued)

- G. Modify the fuel cell wing cavity drains by installing Wing Panel Vent Drain Installation Kit, Piper Part No. 760 578 (reference Material Required, below); reference attached sketch "B."
- II. Aircraft Serial Nos. 27-2505 to 27-4765 incl.:
- A. Check condition of fuel cap assemblies, especially the rubber expandable seal portion. Caps showing indication of deterioration or hardening (of seal) should be replaced.
1. Be sure to adjust caps to adjust snug fit in the filler neck.
- B. Inspect the fuel cell filler cover plate gasket for evidence of aging, hardening or deterioration; replace gasket if any of these conditions are noted.
1. Check fit of cover plate in relation to wing surface when closed; cover plate should fit flush with wing surface.
- C. Check fuel lines and fittings for integrity.
1. Fuel lines showing evidence of damage or possible splitting, and loose or damaged fittings should be replaced.
- D. Install Fuel Cell Vent Drain Kit in accordance with instructions contained in Fuel Cell Vent Drain Kit, Piper Part No. 760 577 (reference Material Required, below).
- E. Modify the fuel cell wing cavity drains by installing Wing Panel Vent Drain Installation Kit, Piper Part No. 760 578 (reference Material Required, below); reference attached sketch "B."

IMPORTANT NOTE: Aircraft described on Service Letter No. 606, dated February 1, 1972 that have complied with the provisions of Service Letter No. 606 are exempt from compliance with this Service Letter.

Material Required:

1. Fuel system components requiring replacement as a result of Instructions, Sections I and II, above, may be identified in the current Aztec Parts Catalog and procured in the normal manner.
2. Applies to Aircraft Serial Nos. 27-1 to 27-2504 incl. (with anti-icing fuel cell vents installed) and all Aircraft Serial Nos. 27-2505 to 27-4765 incl.; one (1) each (per aircraft) Fuel Cell Vent Drain Installation Kit, Piper Part No. 760 577.

Material Required: (continued)

3. One (1) each (per aircraft) Wing Panel Vent Drain Installation Kit, Piper Part No. 760 578.

Availability of Parts:

Your Piper Dealer.

Effectivity Date:

This Service Letter is effective September 1, 1972.

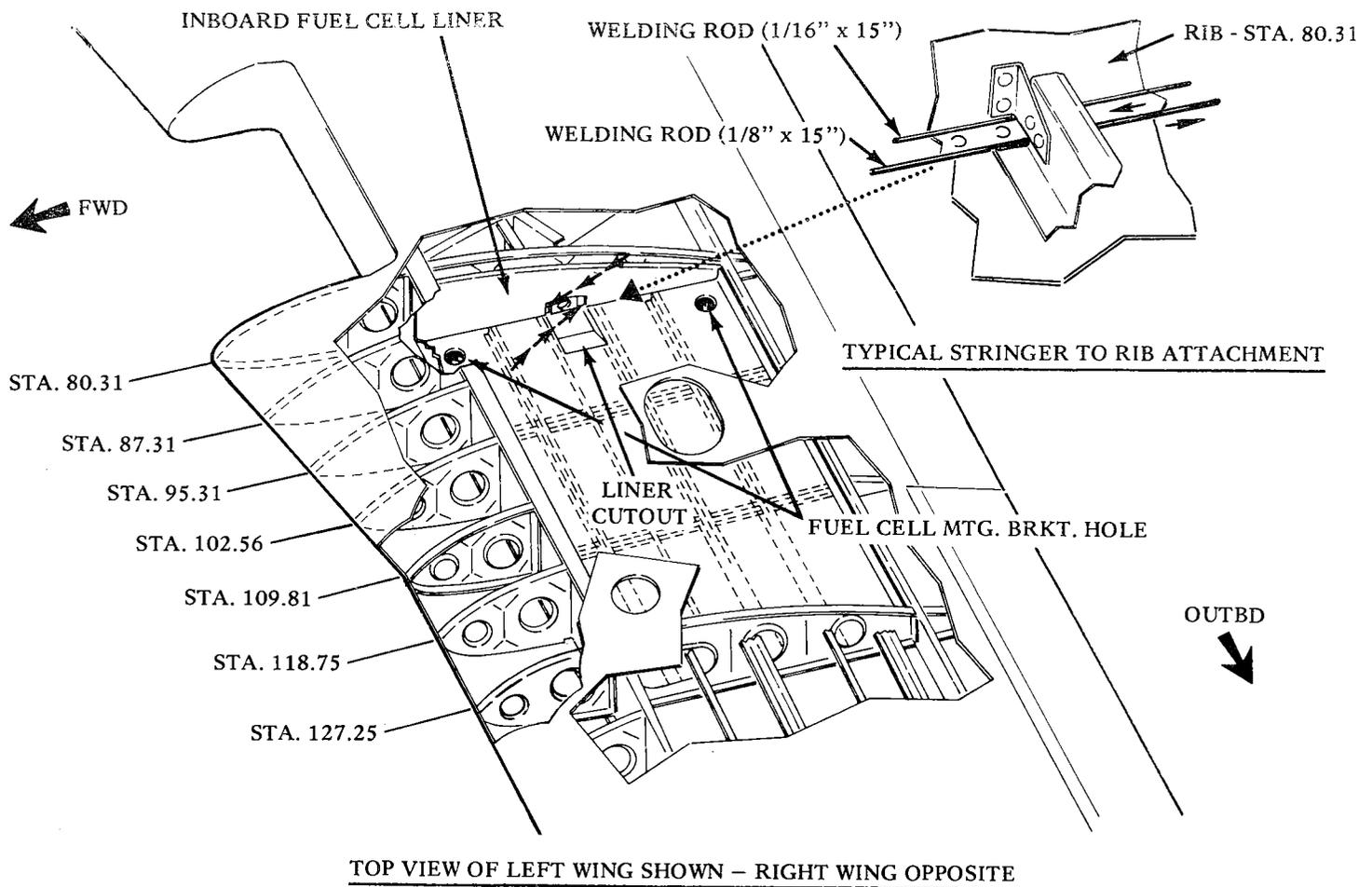
Summary:

Although compliance with this Service Letter is at the discretion of the aircraft owner/operator, it is recommended that the guidelines specified in Compliance Time, above, be followed in order to minimize total labor expense.

The modification material as specified in Material Required Nos. 2 and 3, above, is offered at a special reduced price through your Piper Dealer for a period of time not to exceed one (1) year from the effectivity date of this letter.

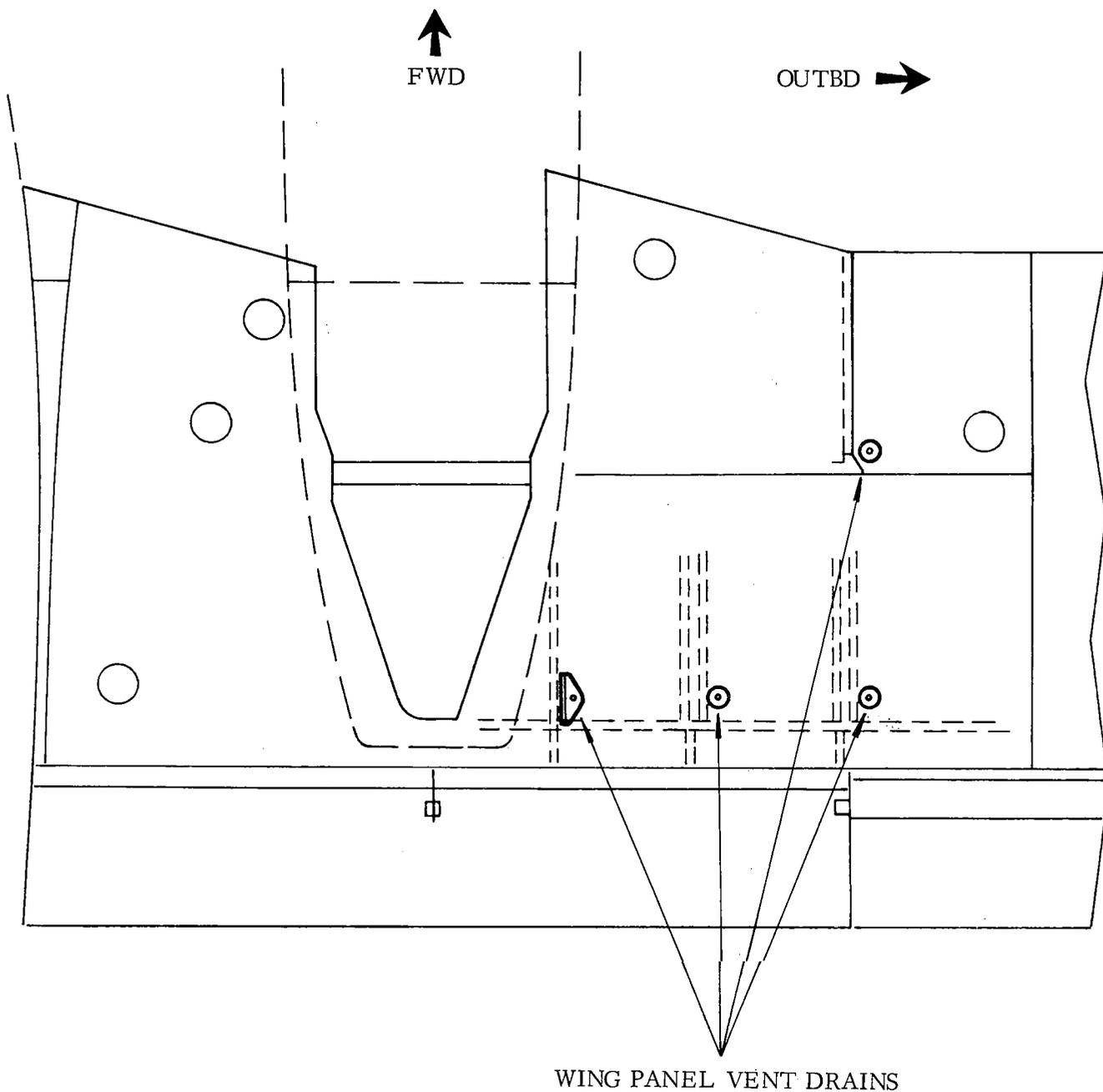
Aircraft designated on Service Letter No. 606, dated February 1, 1972 that have complied with the provisions of Service Letter No. 606 need not comply with this Service Letter.

Contact your Piper Dealer to make arrangements for compliance with this Service Letter.



● INSTRUCTIONS FOR RESEALING INBOARD FUEL CELL WING CAVITY AREA

1. Remove inboard fuel cells from the left and right wings in accordance with Section 9-5 of the Aztec Service Manual.
2. Remove tape from fuel cell liner cutout area where the fuel cell's outlet nipple fits.
3. To facilitate flow-thru of sloshing compound along bottom rib flange at Sta. 80.31 and bottom skin stringer to rib attachment areas (see detail), proceed as follows:
 - a. Insert a 1/8" welding rod (pointed on end) into fuel cell liner cutout (fuel cell outlet area), routing rod behind inboard fuel cell liner and along bottom rib outside flange using a push-pull motion which will "drill" hole thru existing sealant. This procedure shall apply to all four stringer to rib attachment points. Remove rod from wing cavity.
4. Insert two 1/16" welding rods into fuel cell liner cutout, one toward front spar and one toward rear spar, routing rods behind inboard fuel cell liner and along bottom inside radius of rib flange. (See detail). Leave rods in this position. They will be removed later.
5. Cover hole in rib through which the fuel cell's outlet nipple fits, and cover all drain holes in bottom of wing skin between Stations 80.31 and 127.25 with masking tape.
6. Level aircraft longitudinally.
7. Reseal the fuel cell cavity area of one wing at a time, using a sloshing compound that meets MIL-S-4383B specifications. Two sources of this sloshing compound are:
 Products Research & Chemical Corporation - Gloucester City, New Jersey (Part No. 1005-L)
 Coast Pro-Seal Company - Compton, California (Part No. 444R)
 - a. Pour two quarts of the sloshing compound into the two inboard fuel cell mounting bracket holes in the liner and the liner cutout area of the left wing so that the compound will flow under the fuel cell liner and be distributed fore and aft along the rib to skin junction.
 - b. Place jack under jack pad of right wing and raise until left wing is level on underside. This action will distribute the sloshing compound laterally along the rear and front spar skin junctions. Let the aircraft sit in this position for ten (10) minutes and then remove jack.
 - c. Perform steps a. and b. on the right wing.
8. Open drain holes in bottom of wing skins to allow excess sloshing compound to drain out. Return aircraft to normal ground attitude and let drain for one (1) hour.
9. Allow the sloshing compound to dry for twenty-four (24) hours and then remove the two 1/16" welding rods from both wings.
10. Retape liner cutout area at inboard end of fuel cell cavities. Also clean out drain holes on bottom wing skins of any build-up of sloshing compound.
11. Reinstall inboard fuel cells in accordance with Section 9-9 of the Aztec Service Manual.



BOTTOM VIEW OF LEFT WING SHOWN - RIGHT WING OPPOSITE