



# SERVICE BULLETIN

No. 40

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

"FAA DOA EA-1 Approved"

May 24, 1971

Subject:

Fuel Cell Vent/Drain Lines Inspection

Models Affected:

PA-23-150-160 Apache  
PA-23-235, PA-23-250, PA-E23-250, and PA-23-250 (Six Place) Aztec

Serial Numbers Affected:

PA-23-150-160; Serial Nos. 23-1 and up.  
PA-23-235, PA-23-250, PA-E23-250 and PA-23-250 (Six Place); Serial Nos. 27-1 and up.

With Anti-icing Fuel Cell Vents Installed (factory installed and field installed per Service Kit 754 493, Fuel Cell Vent Relocation).

Compliance Time:

Within the next 100 hours of operation, and every 100 hours of operation thereafter.

Purpose:

Field reports have indicated that water may accumulate in the fuel cell vent/drain lines of the above referenced aircraft. This may occur as a result of rain or wash water getting into the fuel cell filler compartment because the cover is not secure or the seal is worn. If the aircraft is parked on level ground or is operated in warm weather, the vent/drain system is designed so that water will drain from the system by gravity. However, should the airplane be parked on a slope, the water may collect and freeze in the lines. This could block the vent/drain line and cause the fuel cell to collapse as fuel is used from the cell. In extreme cases the vent/drain line may split because of the expanding ice, which could allow fuel to leak through the split and enter the wing cavity, thus becoming a possible hazard.

This Service Bulletin provides inspection instructions by which the above referenced aircraft fuel cell vent/drain system may be inspected for indications of the following:

1. Blockage or accumulated foreign material,
2. Leaks,
3. Accumulation of fuel or water.

(over)

Purpose: (Continued)

This inspection will insure that the fuel cell vent/drain system (from the fuel cell filler compartment to the vent outlets in the wing lower skin area) is functioning properly.

Instructions:

1. Secure a plastic or rubber hose approximately 18" long, approximately 5/16" I.D., 9/16" O.D. or larger, with the end tapered to fit the vent/drain hole inside the fuel filler compartment.
2. Insert the hose (tapered end) into the fuel filler vent/drain hole and
  - a. Apply regulated air pressure (Maximum 5 P.S.I.) or blow through the hose. If the line is blocked, correct the cause before proceeding further.
  - b. With an assistant under the wing blocking (with the fingers) the two outlets (9/16" and 1/8" diameter), apply air pressure (per a, above) and determine that air pressure can be held in the system. If pressure cannot be maintained, locate the leak and correct the cause.
3. Inspect the thermos type fuel cell caps for sealing integrity. Caps that have become hardened, dry or cracked should be replaced.
4. Inspect the fuel filler compartment hinged access cover for sealing integrity. A defective seal may allow rain or wash water to enter the fuel cell filler compartment.

This inspection must be accomplished on the fuel cell vent/drain systems on each of the four fuel cells.

Material Required:

Not applicable.

Availability of Parts:

Not applicable.

Effectivity Date:

This Service Bulletin is effective June 11, 1971.

Summary:

Please contact your Piper Dealer to make arrangements for compliance with this Service Bulletin.