

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/AOCADSearch/636243780EDD2233862569A6005CD14C?OpenDocument

Airworthiness Directive

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3903; AD 80-18-10

Airworthiness Directives; Piper Model PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-31, PA-31-300, PA-31-325, PA-31-350, and PA-31P Airplanes

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 8, 1980.

80-18-10 PIPER AIRCRAFT CORPORATION: Amendment 39-3903. Applies to all Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-31, PA-31-300, PA-31-325, PA-31-350, and PA-31P airplanes certificated in all categories.

Compliance is required as indicated unless already accomplished. To prevent possible engine power loss due to malfunction of the fuel valves or fuel valve cable assemblies, accomplish the following:

(a) On Models PA-23-235, PA-23-250, PA-E23-250, serial numbers 27-505 through 27-1999 and 27-2223 through 27-7305126; PA-31, PA-31-300 and PA-31-325, serial numbers 31-2 through 31-7300951; PA-31-350, serial numbers 31-5001 through 31-7305052; and PA-31P, serial numbers 31P-3 through 31P-7300147, equipped with Scott fuel selector valves, perform the following:

NOTE: The requirements of paragraph (a) do not apply to those aircraft equipped with a Dukes valve.

(1) Prior to the next flight, and at intervals not to exceed 10 hours time in service until compliance with paragraph (c), check both right and left fuel selector valves for smooth and easy operation before starting engines. If either fuel selector valve exhibits binding, sticking or is otherwise difficult to operate, accomplish paragraph (c) (1) or (c) (2), as applicable, before further flight.

(b) On Models PA-23, PA-23-160; PA-23-235, PA-23-250, PA-E23-250, serial numbers 27-1 through 27-7954089; PA-31, PA-31-300, PA-31-325, serial numbers 31-2 through 31-7612065; and PA-31P, serial numbers 31P-1 through 31P-7730004, which have accumulated 300 or more hours in service, accomplish the following within 100 hours' time in service after the effective date of this AD unless already accomplished within the last 100 hours, and thereafter at intervals not to exceed 100 hours' time in service.

(1) Visually inspect, using 10x power magnification, all fuel valve control cable wires at each swivel fitting and at idler control arm and actuating lever connections. Inspect for cracks, sharp radius bends

and kinks in the control wires. Refer to Piper Service Bulletin No. 507 for inspection locations. Replace any cable inner wire that exhibits an adverse condition as described above with a like serviceable part.

(2) In accordance with Piper Service Bulletin No. 507 and the appropriate Piper Service Manual, inspect all fuel valves and control cables through all detent positions by having someone operate the fuel controls in the cockpit while inspecting for the following:

(i) Rigging and adjustment.

(ii) Unrestricted motion of cable wires, swivel fitting and valve actuating levers.

(iii) Proper lubrication of fuel valve attachments and controls. Correct any unsatisfactory conditions in accordance with the appropriate aforementioned Piper Service documents.

(c) Within the next 100 hours time in service after the effective date of this AD, unless already accomplished within the last 900 hours, and thereafter at intervals not to exceed 1,000 hours time in service, accomplish the following:

NOTE: The requirements of paragraph (c) do not apply to aircraft equipped with a Dukes valve.

(1) On Models PA-23-235, PA-23-250, PA-E23-250, serial numbers 27-505 through 27-1999 and 27-2223 through 27-7305126; PA-31, PA-31-300, and PA-31-325, serial numbers 31-2 through 31-7300951; and PA31P, serial numbers 31P-3 through 31P-73001 47, equipped with Scott fuel selector valves:

(i) Gain access to the fuel selector valves in accordance with the appropriate Maintenance Manual.

(ii) Visually inspect the cable wires at the fuel selector valve swivel fittings by having someone operate the fuel controls in the cockpit while inspecting the swivel fittings and control wires.

(iii) If any evidence exists of the cable binding, bending, or kinking, replace the cable and carefully check the system rigging in accordance with the appropriate Maintenance Manual.

(iv) Remove and disassemble the Scott fuel selector valves in accordance with the Maintenance Manual, under the section entitled "Fuel System."

(v) Remove the existing valve spool "O" rings and install new ones contained in Piper Kit No. 760-504.

(vi) Reassemble the fuel selector valves and inspect for leaks in accordance with the Maintenance Manual.

(vii) Install the fuel selector valves in the aircraft and inspect for proper rigging and tank selection. Lubricate the external parts at the selector valve sprocket and control cable swivel fittings with an appropriate grease as specified in the Maintenance Manual.

(viii) Inspect for fuel leaks from the fuel selector valves and fittings.

(ix) Prepare the airplane for return to service in accordance with the Maintenance Manual.

(x) Make an appropriate maintenance record entry.

(2) For Model PA-31-350, serial numbers 31-5001 through 31-7305052, equipped with Scott fuel selector valves:

- (i) Remove the access plates located forward of the main spar on the underside of the wings, between the wing and the fuselage.
- (ii) Remove and disassemble the Scott fuel selector valves in accordance with the Maintenance Manual, under the section entitled "Fuel System."
- (iii) Remove the existing valve spool "O" rings and install new ones contained in Piper Kit No. 760-504.
- (iv) Reassemble the fuel selector valves and inspect for leaks in accordance with the Maintenance Manual.
- (v) Install the fuel selector valves in the aircraft and inspect for proper rigging and tank selection.
- (vi) Inspect for fuel leaks from the fuel selector valves and fittings.
- (vii) Install the access plates.
- (viii) Make an appropriate maintenance record entry.

Upon submission of substantiating data, through an FAA Aviation Safety Inspector, the Chief, Engineering and Manufacturing Branch may adjust the inspection intervals.

An equivalent method of compliance may be approved by the Chief, Engineering and Manufacturing Branch, Federal Aviation Administration, Southern Region or Eastern Region.

The checks in paragraph (a) of this AD may be accomplished by the pilot as provided in FAR 43.3h and appropriate maintenance record entries made in accordance with FAR 91.173. Inspections and component replacements must be accomplished by a person authorized by FAR 43.3.

NOTE: Piper Service Letter 580 and Service Bulletin Nos. 277, 507, and 648 pertain to this subject.

This supersedes Amendment 39-3102, 43 FR 6411, AD 77-26-02.

This amendment becomes effective September 8, 1980.