

DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
14 CFR Part 39

Amendment 39-2914; **AD 77-12-01**

Airworthiness Directives; Piper Models PA-28-235, PA-32-260, PA-32-300, and PA-32S-300 Airplanes  
DATES: Effective June 10, 1977.

**77-12-01 PIPER AIRCRAFT CORPORATION:** Amendment 39-2914. Applies to Models PA-28-235, PA-32-260, PA-32-300, PA-32S-300 airplanes certificated in all categories. Models and serial numbers of airplanes affected are noted in sections (a), (b), (c), (d), and (e) in the body of the A.D.

To prevent a fuel system malfunction and a possible power interruption, accomplish the following:

(a) On Model PA-28-235 serial numbers 28-10001 through 28-7410093; Model PA- 32-260 serial numbers 32-03, 32-04, 32-1 through 32-7400049; Model PA-32-300 serial numbers 32-15, 32-21, 32-40000 through 32-7440160, and Model PA-32S-300 serial numbers 32S-15, 32S-40000 through 32S-7240137, airplanes equipped with an Airborne Model 1H10, 1H16-1, 1H26-2, 1H26-3 or 1H26-4 model fuel selector valves, within the next five hours time in service after the effective date of this A.D. and thereafter before the first flight of each day until (b), (c), (d) and (e) are accomplished and thereafter at intervals not to exceed 50 hours time in service from the last check perform the following check:

(1) Insure that there is fuel in each tank. Drain fuel tank sumps and fuel selector sump using normal preflight procedures.

(2) Place the fuel selector valve in the "OFF" detent position.

(3) Actuate the fuel selector valve drain lever for one minute, collect contents and discard.

NOTE: Several attempts may be required to drain all fuel from sump bowl. A leaking fuel selector valve is indicated by continued draining, when the fuel selector is in the "OFF" position. The volume of this drainage depends on the size of the "leak."

(4) Close drain valve and wait three minutes. Drain fuel selector again for one minute, collecting contents in a container. Close drain valve.

(5) If fuel collected exceeds one-half fluid ounce (one tablespoon), repeat Item (4) above.

(6) If the repeated drain procedure produces one-half fluid ounce or more, an excessive internal leaking fuel valve is indicated and (i) or (ii) must be accomplished.

(i) Remove, clean and reinstall the fuel selector valve, and repeat steps (1) through (5).

(ii) Replace the fuel selector valve with the applicable Piper fuel valve kit 757 148V or 760 895V.

Paragraph (a) does not apply to those airplanes that have installed Piper fuel valve Kit 757 148V or fuel

valve kit 760 895V.

(b) On Model PA-28-235 serial numbers 28-10001 through 28-11236; Model PA- 32-260 serial numbers 32-03, 32-04, 32-1 through 32-1123; Model PA-32-300 serial numbers 32-15, 32-21, 32-40000 through 32-40629, and Model PA-32S-300 serial numbers 32S-15, 32S-40000 through 32S-40629, airplanes, within the next 100 hours time in service after the effective date of this A.D., perform the following:

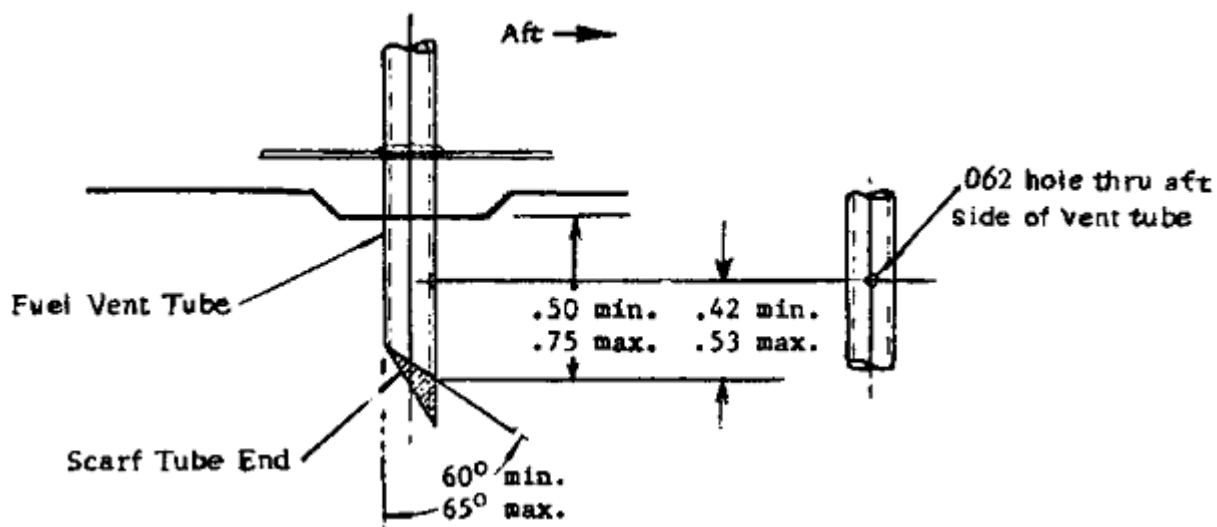
(1) Check to determine whether the main and tip fuel tank fill caps are Piper Part Number 66817-00. Fuel tank fill cap, Piper Part Number 66817-00, contains a circular red rubber seal in the center of the underside of the cap.

(2) If any fuel tank fill cap is not Piper Part Number 66817-00, remove and replace it with Piper Part Number 66817-00.

(c) On Model PA-28-235 serial numbers 28-10001 through 28-7310125; Model PA- 32-260 serial numbers 32-03, 32-04, 32-1 through 32-7300036; Model PA-32-300 serial numbers 32- 15, 32-21, 32-40000 through 32-7340081, and Model PA-32S-300 serial numbers 32S-15, 32S- 40000 through 32S-7240110, airplanes, within the next 50 hours time in service after the effective date of this A.D., unless already accomplished, modify the fuel selector control system in accordance with Piper Service Bulletin 376 dated April 19, 1973.

(d) On Models PA-28-235 serial numbers 28-10001 through 28-7710040; Model PA-32-260 serial numbers 32-03, 32-04, 32-1 through 32-7700016; Model PA-32-300 serial numbers 32-15, 32-21, 32-40000 through 32-7740037, 32-7740039 through 32-7740053, 32- 7740055 through 32-7740062, 32-7740064 through 32-7740069; and Model PA-32S-300 serial numbers 32S-15, 32S-40000 through 32S-7240137 airplanes, within the next 50 hours time in service after the effective date of this A.D., perform the following modification and/or inspections to the main and wing tip fuel tank vent tubes:

(1) Unless already accomplished, rework fuel tip tank vent to the dimensions shown on the sketch below:



## TIP TANK VENT TUBE

NOTE: Some tip tanks were not equipped with protruding external vents, and (d)(1) of the A.D. does not apply to those tanks.

(2) Unless already accomplished, install the new main fuel tank vent assembly contained in Piper Kit No. 760 560V.

(i) Remove all screws from each main fuel tank and slide tank forward approximately six (6) inches. Remove present vent assembly.

(ii) Install the new vent assembly contained in Piper Kit. No. 760 560V.

(iii) Replace each tank in its proper position, and secure in place with the screws removed in (i).

(3) Inspect both wing tip fuel tank vent tubes scarf angle and alignment to the lower wing surface.

(4) If the tip tank vent tube scarf angle is not between 60 degrees and 65 degrees, or if the vent tube is not perpendicular (90 degrees) plus or minus 2 degrees, rework it to those dimensions.

(5) Inspect both main fuel tank vent tubes scarf angle and alignment to the lower wing surface.

(6) If the vent tube scarf angle is not 40 degrees plus or minus 2 degrees, or if the vent tube is not perpendicular (90 degrees) plus or minus 2 degrees, rework it to those dimensions.

(e) On Models PA-28-235 serial numbers 28-10001 through 28-7710040; Model PA-32-260 serial numbers 32-03, 32-04, 32-1 through 32-7700016; Model PA-32-300 serial numbers 32-15, 32-21, 32-40000 through 32-7740037, 32-7740039 through 32-7740053, 32-7740055 through 32-7740062, 32-7740064 through 32-7740069; and Model PA-32S-300 serial numbers 32S-15, 32S-40000 through 32S-2740137 airplanes, within the next 50 hours time in service after the effective date of this A.D., inspect the two fuel hose assemblies, Piper Part Number 63901-15 or 63901-48 at each main fuel tank for proper installation as follows:

(1) Disconnect both main landing gear strut fairings from the wings.

(2) Remove both main landing gear access covers.

(3) Visually inspect both fuel hose assemblies, Piper Part Number 63901-15 or 63901-48 as applicable.

(i) If the hose assembly is twisted, loosen the inboard end fitting and allow the hose to return to its natural untwisted state.

(ii) If the hose assembly does not return to its natural state with slight hand pressure, replace it with a serviceable hose assembly, Piper Part Number 63901-15 or 63901-48 as applicable.

(4) Reconnect the inboard end fittings, making sure the hose is not twisted, and reinstall the main landing gear access covers and strut fairings.

(f) Alternate method of compliance must be approved by the Chief, Engineering and Manufacturing

Branch, Federal Aviation Administration, Southern Region.

The checks in this A.D. may be accomplished by the pilot and appropriate log book entries made in accordance with FAR 91.173.

Piper Service Bulletins 342, 376 and 571 pertain to this subject.

This amendment becomes effective June 10, 1977.