

**PIPER AIRCRAFT
PA-46-310P / 350P
MAINTENANCE MANUAL**

Fuel

A. General

WARNING: DURING FUEL SYSTEM MAINTENANCE PRACTICES, A GROUND WIRE ATTACHED FROM EACH MAIN GEAR GROUNDING PIN TO SEPARATE APPROVED GROUNDING STAKES SHOULD BE USED TO PREVENT UNGROUNDING OF THE AIRCRAFT DUE TO ACCIDENTAL DISCONNECTION OF ONE GROUND WIRE.

(1) Fuel System (PA-46-310P) Description

The fuel system consists of an integral fuel tank in each outboard wing section, having a usable capacity of 60 U.S. gallons for a total usable capacity of 120 U.S. gallons. The fuel tanks are part of the wing structure and are of the wet wing configuration. Each tank has an anti-icing fuel vent and forward and aft fuel supply lines with finger screens. Fuel flows from these finger screens thru lines to a 1 U.S. gallon collector tank located in each wing wheel well area. Installed in each collector tank is an electrically driven centrifugal fuel boost pump which is activated in conjunction with the fuel selector control in the cockpit. A sump drain is also located in each collector tank.

The fuel selector valve has a combination fuel and vapor return function. This selector valve is located on the lower right side of the fuselage between F.S. 139.80 and 147.30, in a compartment sealed from cabin pressure. All fuel and vapor return lines passing through the cabin area are of the double walled construction with no fittings or joints within the pressurized cabin area. The vapor return line is routed from the engine thru the fuel selector valve and back to each main fuel tank.

The combination fuel selector and vapor return valve is mechanically operated through a direct operating flexible control cable. The selector lever is mounted on the lower left instrument panel directly below the fuel quantity gauge. The OFF position has a positive detente.

A single electric fuel boost pump switch is located on the lower left portion of the instrument panel and is electrically interconnected thru the fuel selector valve operating mechanism, so only the boost pump of the selected fuel tank will operate when the switch is activated.

Two fuel quantity senders are provided in each main fuel tank.

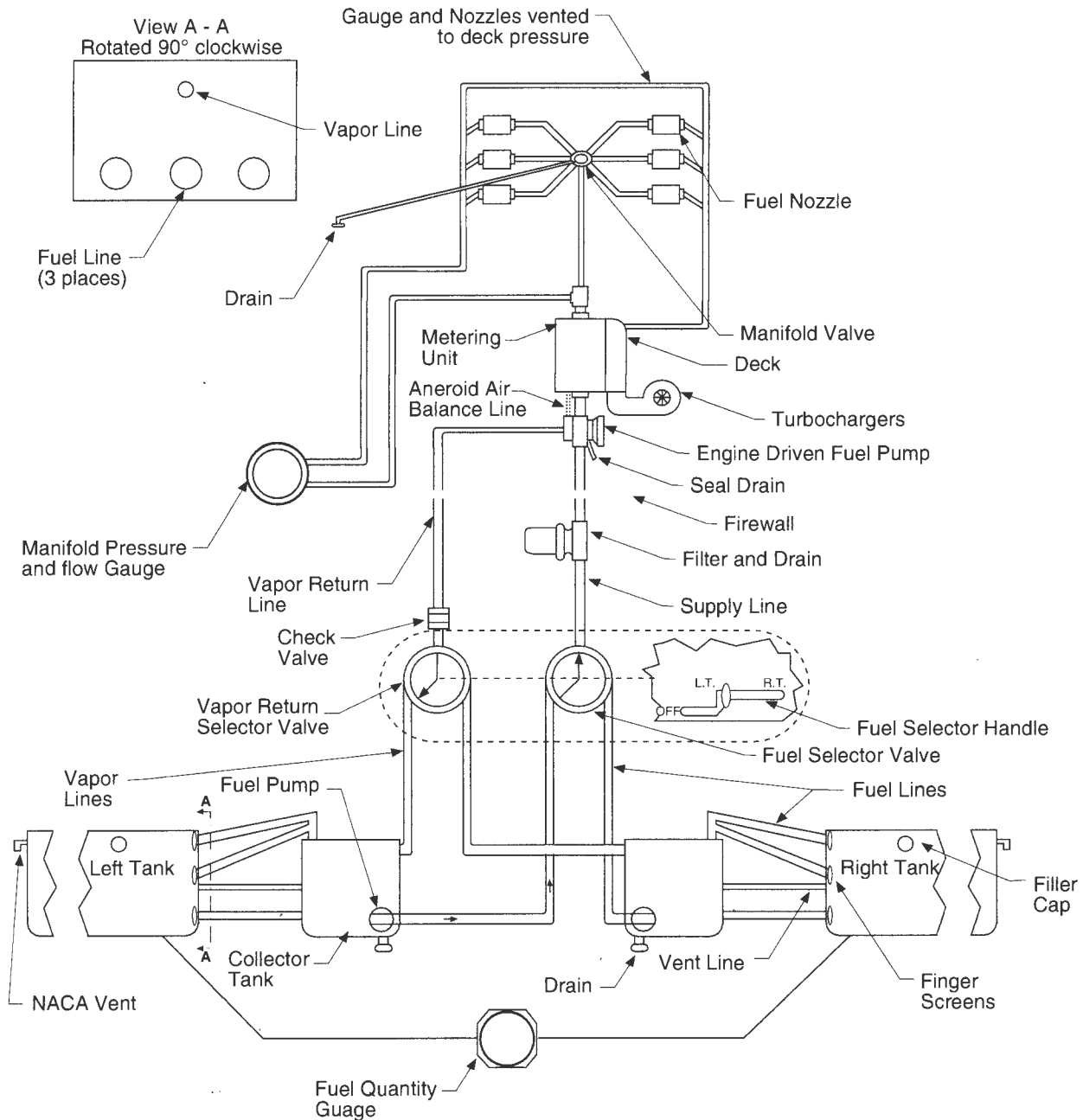
Fuel from the selector continues on through to the fuel gascolator (filter) located below the floor of the forward baggage compartment. Access is through a removable floor panel on the right side of the compartment. A quick drain is provided from the gascolator and extends out through the fuselage on the lower right side of the nose section.

(2) Fuel System (PA-46-350P) Description

The fuel system consists of an integral fuel tank in each outboard wing section, having a usable capacity of 60 U.S. gallons for a total usable capacity of 120 U.S. gallons. The fuel tanks are part of the wing structure and are of the wet wing configuration. Each tank has an anti-icing fuel vent and forward and aft fuel supply lines with finger screens. Fuel flows from these finger screens thru lines to a 1 U.S. gallon collector tank located in each wing wheel well area. Installed in each collector tank is an electrically driven centrifugal fuel boost pump which is activated in conjunction with the fuel selector control in the cockpit. A sump drain is also located in each collector tank.

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A. General (continued)



Fuel System (PA-46-310P)
Figure 1