

7.10 FUEL SYSTEM

The AT-802 fuel system has two integral fuel tanks in the wings that are located between the main spar and aft rear spar of each wing structure. These tanks gravity feed into a small header tank that is located behind the chemical hopper and below the rear spar attach tube in the fuselage. Both wing fuel tanks are interconnected through this fuel tank and there is no means to select either tank individually. Finger strainers are installed at the fuel outlet of each wing tank to strain out large particles from the fuel system.

Some AT-802 aircraft are equipped with visual fuel tabs at the fuel filler openings that show the approximate 3/4 fuel level of the fuel tanks. These tabs also provide a visual reference for 75, 100, or 125 gallon fuel levels (depending on fuel tank size). See Section 7.13. Note that these fuel tabs are not appropriate for installation on aircraft that meet lightning safe requirements.

Each fuel tank has an overboard vent located near the wing tip. With both tanks completely full, it is possible during flight to vent a small amount of fuel overboard by skidding the aircraft or rolling sharply. Some fuel may also vent from these locations on the ground when the fuel expands due to high outside air temperature.

The fuel is drawn from this header tank through an electric fuel boost pump, a fuel shutoff valve, and firewall fuel filter by the engine driven fuel pump. The engine driven fuel pump operates continuously while the electric fuel boost pump is used only to fill the fuel lines prior to starting and as a back-up to the engine-driven pump. Either pump will deliver fuel at a minimum pressure of 15 psi to the fuel control pump which is part of the engine. HOWEVER, when using aviation gasoline (avgas), the electric fuel boost pump must be used continuously for the duration of the flight.

The fuel valve handle is located within reach of the pilot on the left-hand side of the cockpit. This valve is used to shut off the flow of fuel to the engine in an emergency.

If additional fuel capacity is needed for a long distance flight, the optional ferry fuel system may be installed that uses the hopper as an additional fuel tank. In this arrangement, the fuel shutoff valve becomes a selector valve and is used to switch between OFF, Hopper Fuel, and Main Fuel positions. Consult the aircraft Owner's Manual for installation information.

See the included fuel system schematic for more details.

7.10 Fuel System (Continued)

