

Section VII Systems Description

BEECHCRAFT Musketeeer A23, A23A

FUEL TANKS

Fuel tanks located in each wing leading edge have a nominal capacity of 29.9 gallons. In the filler neck of each tank is a visual measuring tab which permits partial filling of the fuel system. When the fuel touches the bottom of the tab it indicates 15 gallons of fuel, and when filled to the slot in the tab it indicates 20 gallons of fuel. The indicating system reads full at 20 gallons. The pilot must visually check the fuel level during preflight to ascertain desired level. Fuel is fed from the desired tank through a fuel selector valve in the center floorboard and then through a strainer to the engine-driven fuel pump.

A fuel return line from the engine-driven fuel pump returns approximately 3 to 6 gallons of fuel per hour to the left tank when the engine is operating at 75% power or less.

FUEL DRAINS

Two tank sump drains extend through the bottom of the wing skins, near the fuselage. The system low spot drain is incorporated in the fuel strainer on the lower right side of the fuselage aft of the nose wheel. Sump drains provide a means to visually inspect the fuel for water or contaminants.

Refer to HANDLING, SERVICING AND MAINTENANCE Section for procedures describing how and when to use fuel tank sump drains.

FUEL QUANTITY INDICATORS

Fuel quantity is measured by a float operated sensor, located in each wing tank system. These transmit electrical signals that indicate fuel remaining in each tank. The indicators indicate full when 20 or more gallons are in each wing tank.

FUEL BOOST PUMP

The electric fuel boost pump is controlled by an ON-OFF switch on the pilot's subpanel. It provides pressure for starting and emergency operation.

FUEL TANK SELECTION

The fuel selector valve handle is located on the floorboards between the pilot and copilot seats. Takeoffs and landings should be made using the tank that is more nearly full.

CAUTION

Use 15 gallons from the left tank first.

If the engine stops because of insufficient fuel, refer to the EMERGENCY PROCEDURES Section for the Air Start procedures.

FUEL REQUIRED FOR FLIGHT

It is the pilot's responsibility to ascertain that the fuel quantity indicators are functioning and maintaining a reasonable degree of accuracy, and to be certain of ample fuel for a flight. Takeoff is prohibited if the fuel quantity indicators do not indicate above the *yellow arc or with less than 11 gallons in each main tank. The caps should be removed and fuel quantity checked to give the pilot an indication of fuel on board. The airplane must be approximately level for visual inspection of the tank. Fuel should be added so that the amount of fuel will be not less than is required for takeoff. Plan for an ample margin of fuel for any flight.

*Only on airplanes complying with BEECHCRAFT S.I. No. 0524-281.