

SECTION IX

FUEL SYSTEM

9-1. INTRODUCTION. The fuel system components covered in this section consist of fuel cells, fuel selector valves, electric auxiliary fuel pumps, tip tanks, tip tank solenoid valves and fuel selector electrical switches.

This section provides instructions for troubleshooting the system, and removal, cleaning, repair, testing, installation and adjustment of system components.

9-2. DESCRIPTION. The fuel system is contained in two independent units that allow each engine to have its own fuel supply. The systems are connected only by a crossfeed that will allow fuel to be drawn from one set of fuel cells to the engine of the opposite side, in the event of an emergency.

The fuel cells are of the bladder type installed in cavities in the wings, with each inboard (main) cell holding a capacity of 30 U.S. gallons and each outboard (auxiliary) cell holding a capacity of 15 U.S. gallons. Optional wing tip tanks hold a capacity of 15 U.S. gallons each.

For each engine, fuel is taken from each cell through a screen located in the cell outlet fitting and then on to a shut-off selector valve. From the selector valve, fuel is drawn through an electrically operated auxiliary fuel pump and on to an engine driven pump where it is pumped to the injector unit. Fuel from the tip tanks enters the auxiliary fuel line at the solenoid valve located in the cabin at the main spar.

Drains and fuel screens are located in the fuel selector valves which are accessible through an access panel located just ahead of the main spar between the pilot seats or, for service purposes, in the bottom of the fuselage.

The fuel valves are operated through controls located in a panel, just ahead of the main spar, between the pilot seats. Fuel gauges will indicate the quantity of fuel in each cell from which the fuel is being selected.

9-3. TROUBLESHOOTING. Troubles peculiar to the fuel system are listed in Table IX-I at the back of this section, along with their probable causes and suggested remedies. When troubleshooting, check from the fuel supply or from the power supply to the items affected. If no trouble is found by this method, the trouble probably exists inside individual pieces of equipment; they may then be removed from the airplane and overhauled, or identical unit or units tested and known to be good installed in their place. The electrical system diagram for the system may be found in Section XI, Electrical System.