

FUEL SYSTEM

MAIN PARTS OF THE FUEL SYSTEM

- FUEL STORAGE
- PRESSURE REFUELING SYSTEM
- ENGINE FUEL FEED
- APU FUEL FEED
- DEFUELING
- FUEL INDICATING
- FUEL TEMPERATURE INDICATING SYSTEM
- FUEL MEASURING STICK

FUEL SYSTEM

Primary purposes of the fuel system:

- Stores fuel for use by engines and APU
- Supplies fuel to APU
- Supplies fuel to engines

The fuel system has these subsystems:

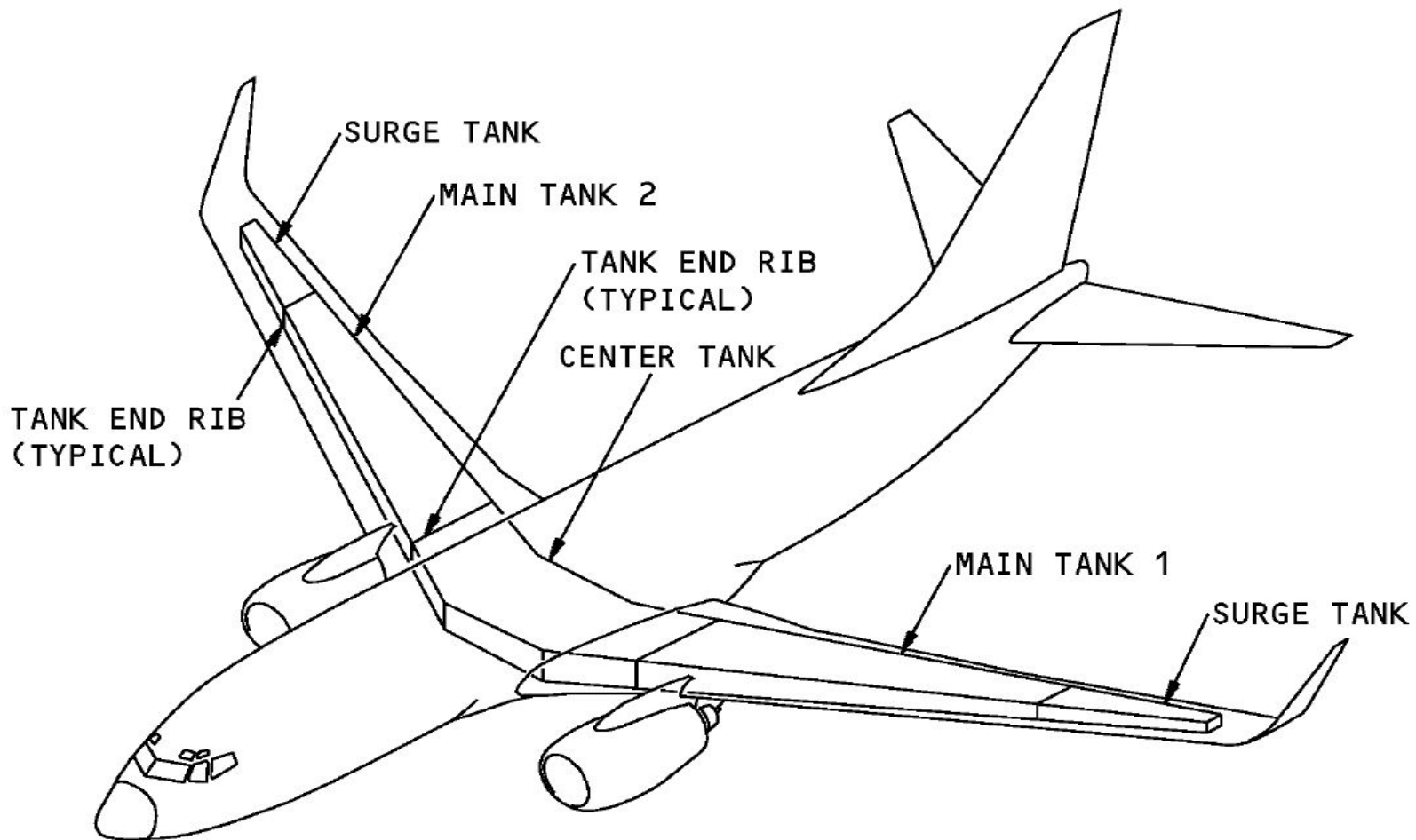
- Fuel storage
- Pressure fueling
- Engine fuel feed
- APU fuel feed
- Defuel
- Fuel quantity indicating system
- Fuel temperature indication

FUEL STORAGE

These tanks store fuel:

- Main tank 1
- Main tank 2
- Center tank

The main tanks are in the wings. Main tank 1 is in the left wing. Main tank 2 is in the right wing. The center tank is in the fuselage and the inboard section of each wing.



| FUEL TANK CAPACITY | | |
|--------------------|--------|--------|
| | LB | KGS |
| MAIN TANK 1 | 8,630 | 3,915 |
| MAIN TANK 2 | 8,630 | 3,915 |
| CENTER TANK | 28,803 | 13,066 |
| TOTAL | 46,063 | 20,896 |

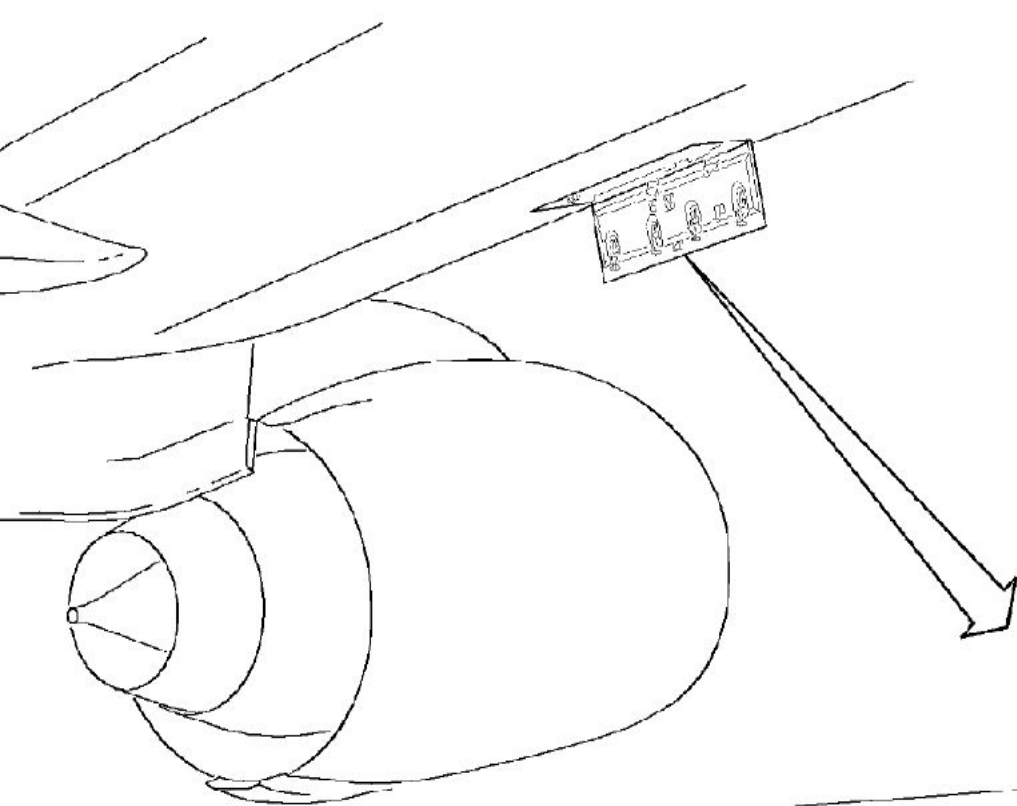
FUEL DENSITY 6.7
POUNDS PER US GALLON
(0.8029 KILOGRAMS
PER LITER)

PRESSURE FUELING SYSTEM

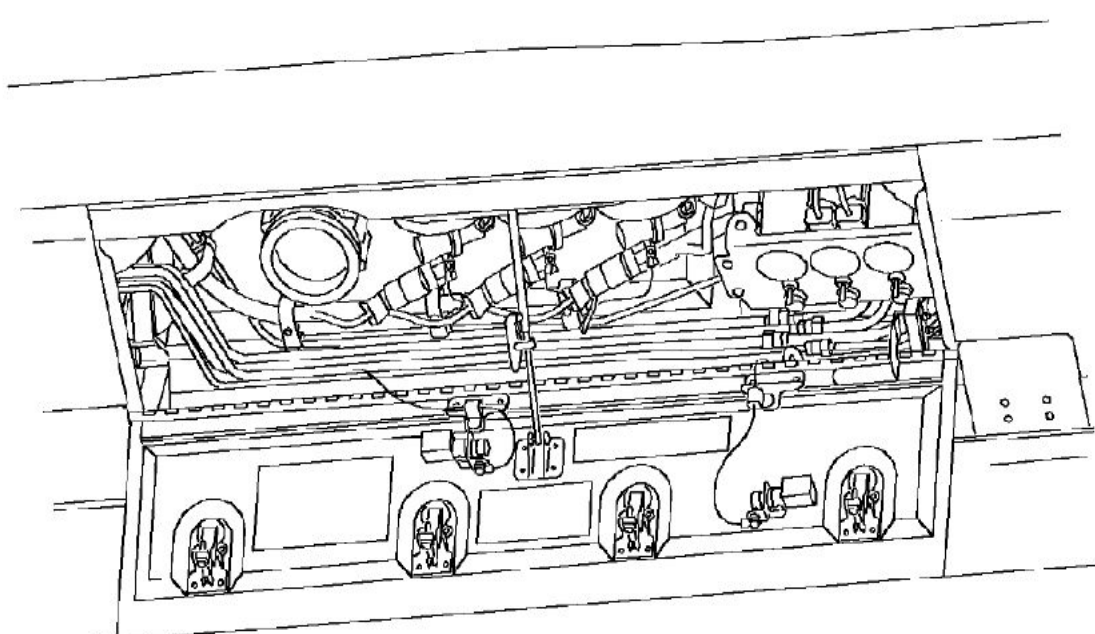
The pressure fueling system is used to refuel all tanks and during fuel transfer from tank to tank.

The fueling station has these components:

- Fueling panel
- Fueling manifold
- Fueling receptacle
- Fueling shutoff valves



LOWER RIGHT WING

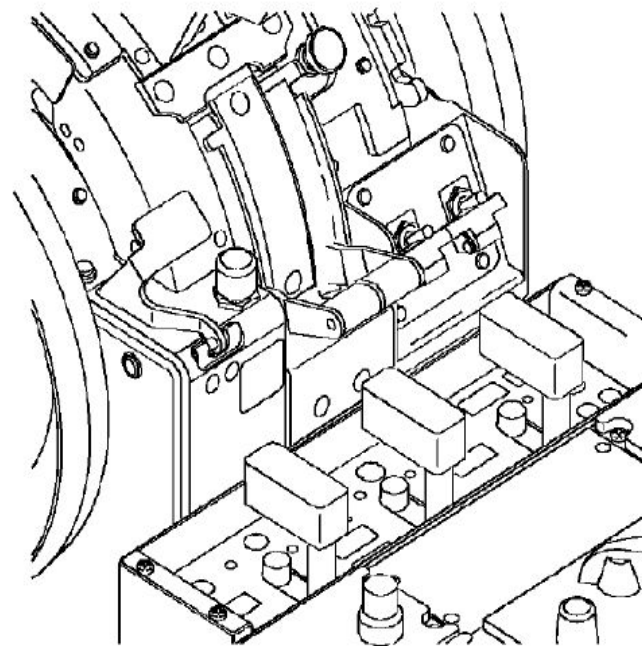
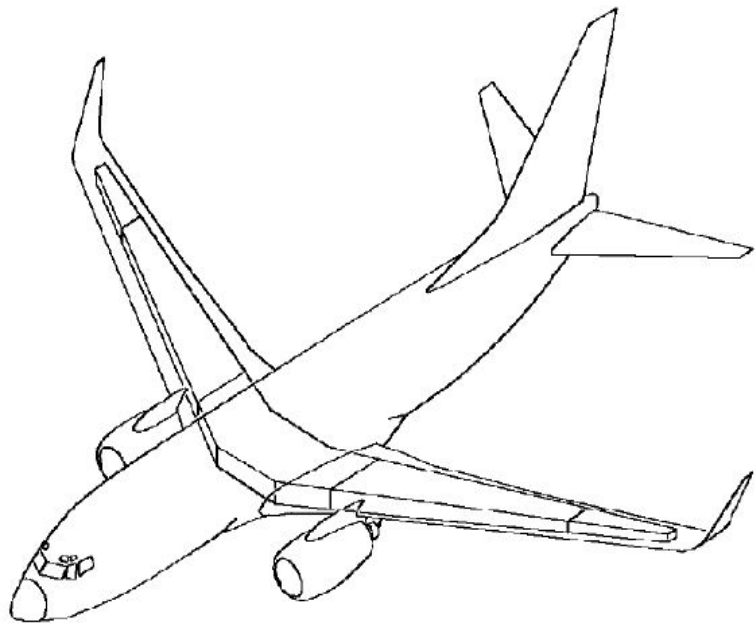


FUELING STATION (P15)

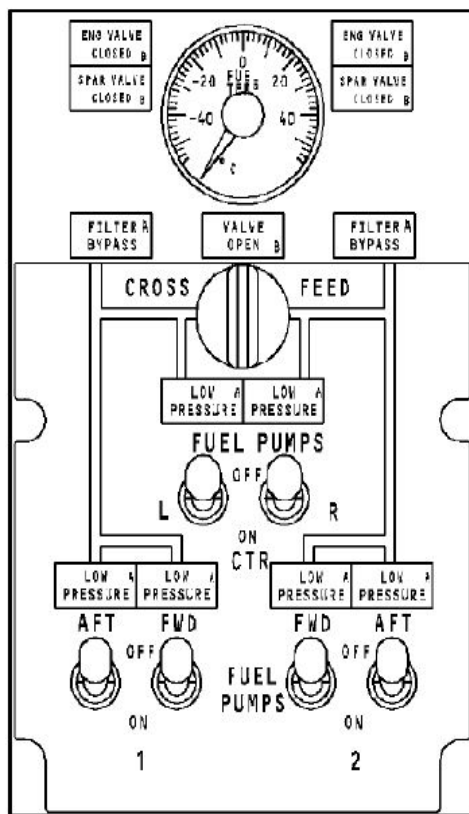
ENGINE FUEL FEED

The engine fuel feed system supplies fuel from the fuel tanks to the engines.

It is operated from the fuel control panel and the engine start levers.



ENGINE START LEVERS



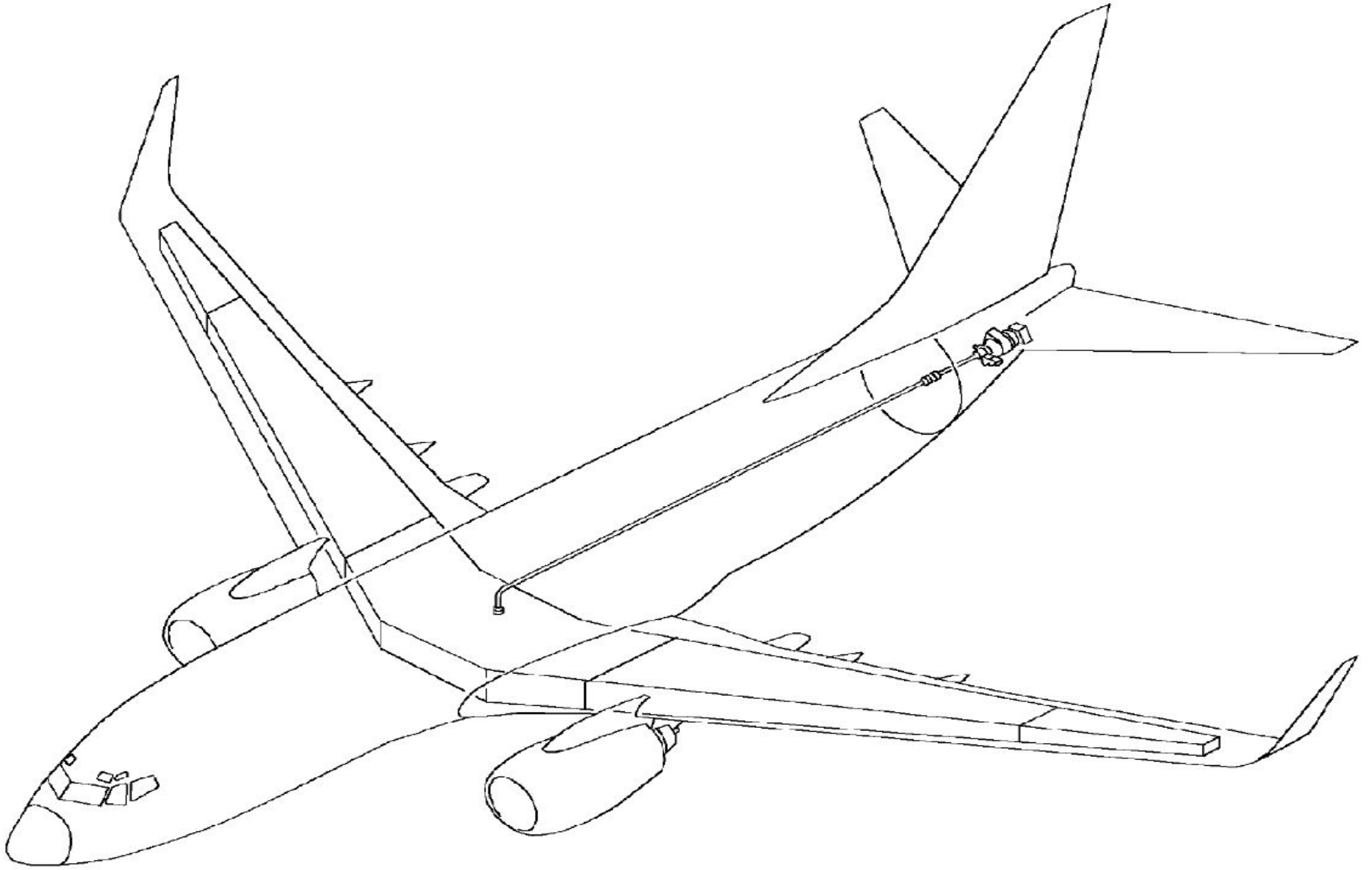
FUEL CONTROL PANEL

APU FUEL FEED

This system supplies fuel from any tank to the APU.

The APU fuel feed system has these components:

- APU dc boost pump (Optional)
- APU fuel feed line
- APU fuel feed line shroud
- APU fuel shutoff valve



APU FUEL FEED - INTRODUCTION

DEFUELING

The defuel system removes fuel from the fuel tanks to the refuel station. The defuel system also permits fuel transfer from one fuel tank to another.

DEFUELING

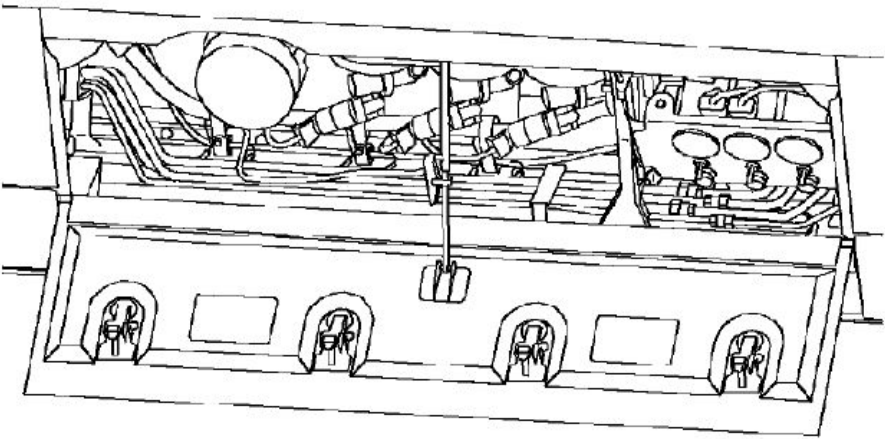
Pressure Defuel

These is used to pressure defuel the tanks:

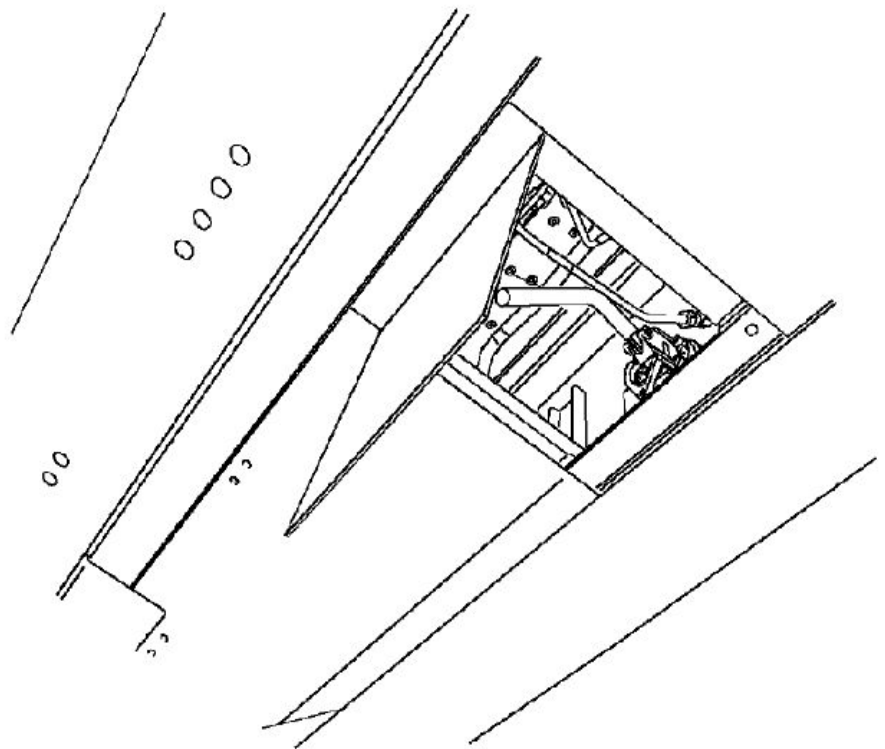
- Refuel station
- Fuel pumps
- Defuel valve
- Crossfeed valve

Suction Defuel

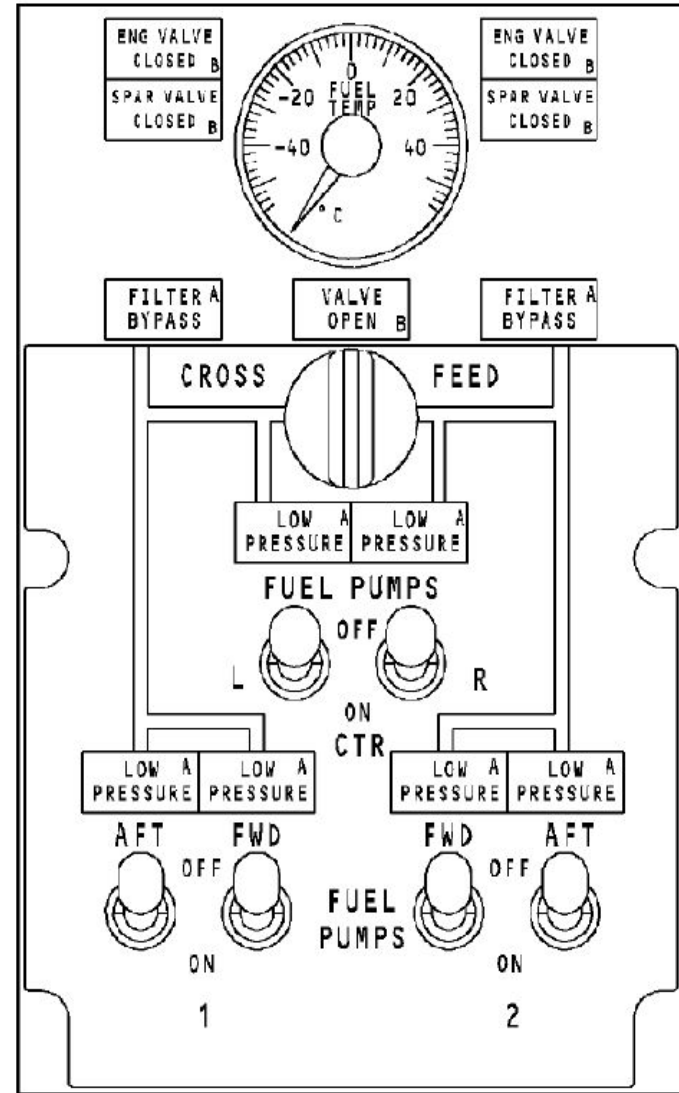
The defuel valve and refuel station are used to suction defuel main tank 1 and main tank 2.



FUELING STATION (P15)



DEFUEL VALVE

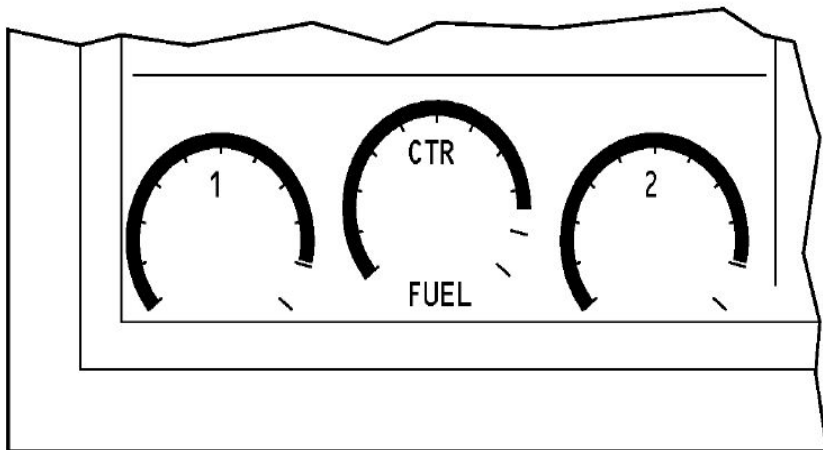


FUEL CONTROL PANEL (P5)

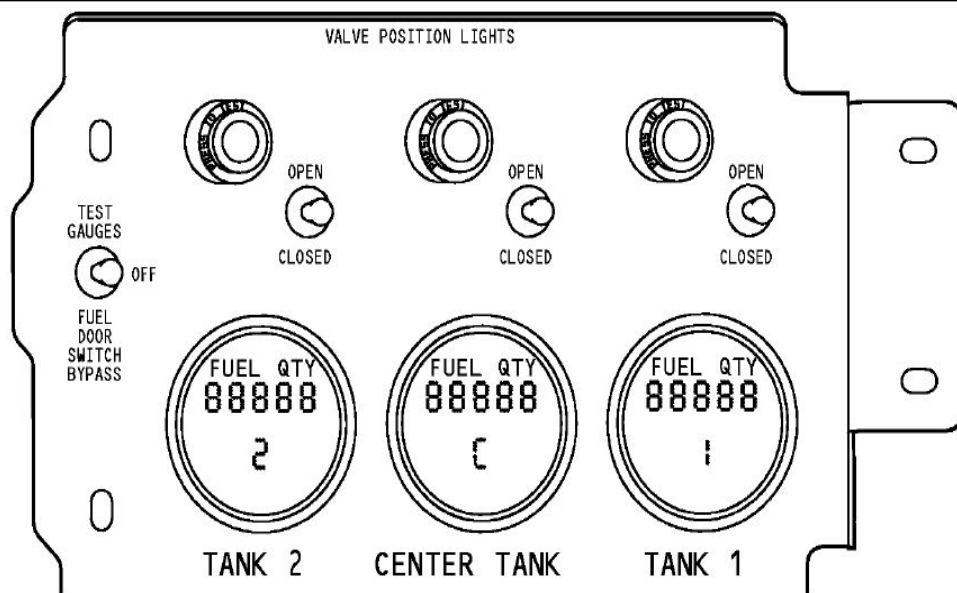
FUEL INDICATING

The Fuel Quantity Indicating System (FQIS) measures fuel weight in the fuel tanks. The common display system (CDS) and the fueling panel show fuel quantity.

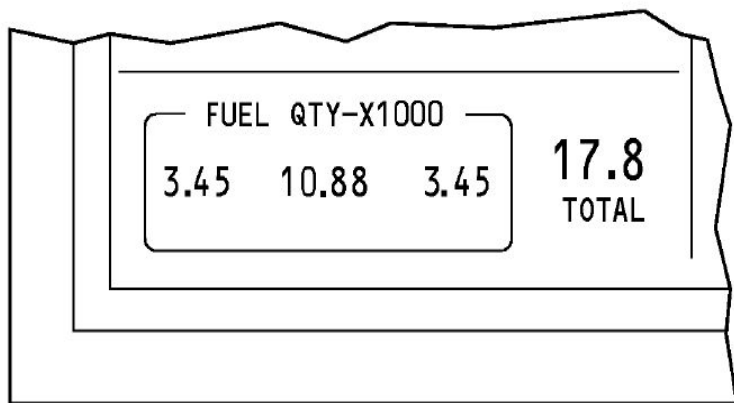
The fuel quantity indicating system (FQIS) calculates the fuel weight in each fuel tank. The fuel quantity of each tank shows on the common display system (CDS). The fuel quantity processor unit (FQPU) calculates total fuel weight and supplies this to the FMCS.



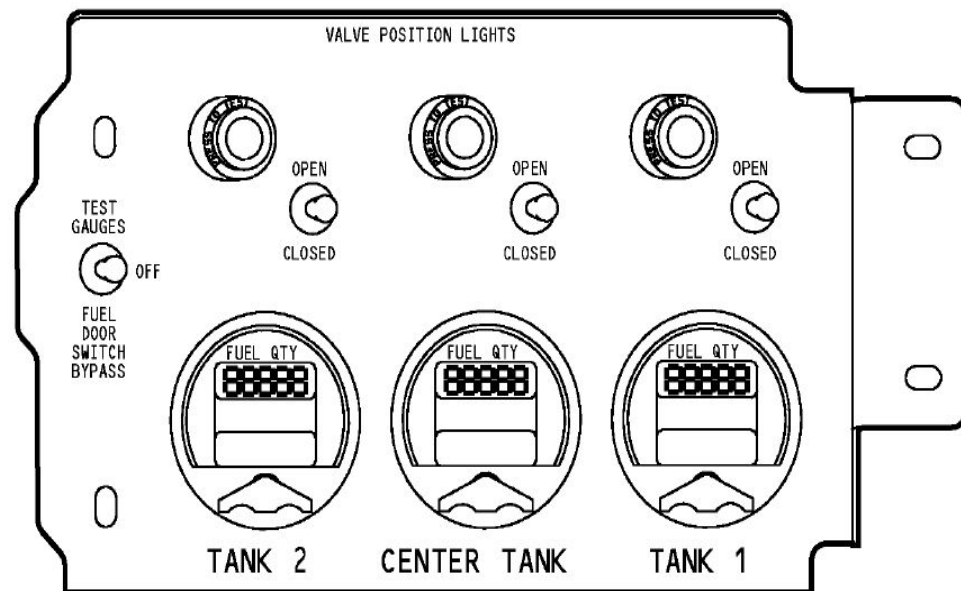
ENGINE DISPLAY
(EXAMPLE)



REFUEL PANEL, P15



ENGINE DISPLAY
(EXAMPLE)



REFUEL PANEL (P15)

NOTE: ALL INDICATIONS ARE DISPLAYED IN KILOGRAMS OR POUNDS

FUEL TEMPERATURE INDICATING SYSTEM

Purpose

The fuel temperature indicating system shows fuel temperature in main tank 1.

Location

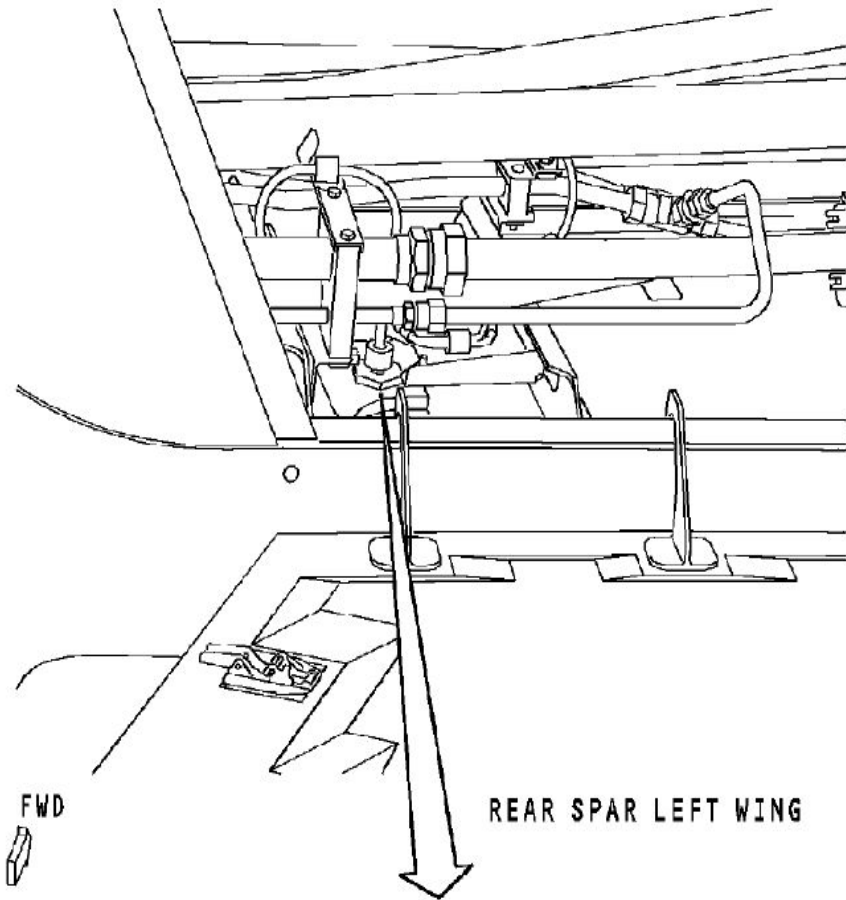
The fuel temperature bulb is on the rear spar on main tank 1.
The fuel temperature indicator is on the fuel system panel.

FUEL TEMPERATURE INDICATING SYSTEM

Components

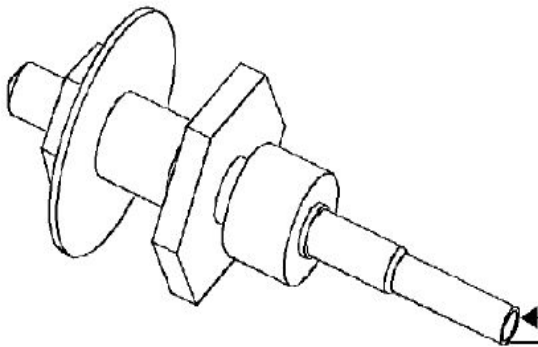
The fuel temperature indicator is a resistance ratiometer instrument.

The fuel temperature bulb is a resistance unit. The resistance of the fuel temperature bulb changes with fuel temperature.

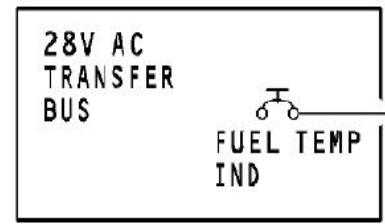


REAR SPAR LEFT WING

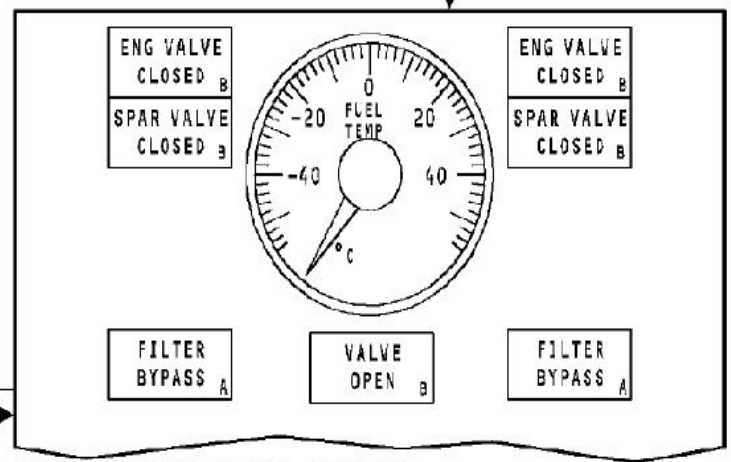
FWD



FUEL TEMPERATURE BULB



P6 CB PANEL



FUEL SYSTEM PANEL (P5-2)

FUEL MEASURING STICK

There are six measuring sticks in main tank 1 and main tank 2.

Each fuel measuring stick is on a fuel tank access door. The fuel measuring sticks are numbered 3 through 8, from inboard to outboard.

There are four fuel tank measuring sticks in the center tank. Two fuel tank measuring sticks are on fuel tank access panels and two are on the wing skin. The center tank fuel measuring sticks are numbered 1 and 2, from inboard to outboard.

