



Modification to fuel level sight gauge

Classification

Mandatory

Applicability

All Europa aircraft

Compliance

Within the next 10 flying hours

Introduction

Experience has shown that the fuel sight gauge cannot be relied upon to read accurately when the aircraft is in flight. This is believed to be because the source for the gauge is affected by fuel flow to the engine. This modification transfers the source to a point which is not affected by fuel flow.

The modification means that the gauge will no longer show the level in whichever section of the tank is selected by the fuel valve, but will always show the level in the "main" tank. Traditionally the right hand side of the tank has been regarded as the main tank, but optionally you may like to change this to the left side, since that way the reserve tank is always refreshed or refilled when the aircraft is refuelled.

The modification introduces a double ported fuel outlet fitting - this fitting will also be used in an optional modification (Mod 33) to install drain valves to the fuel tank.

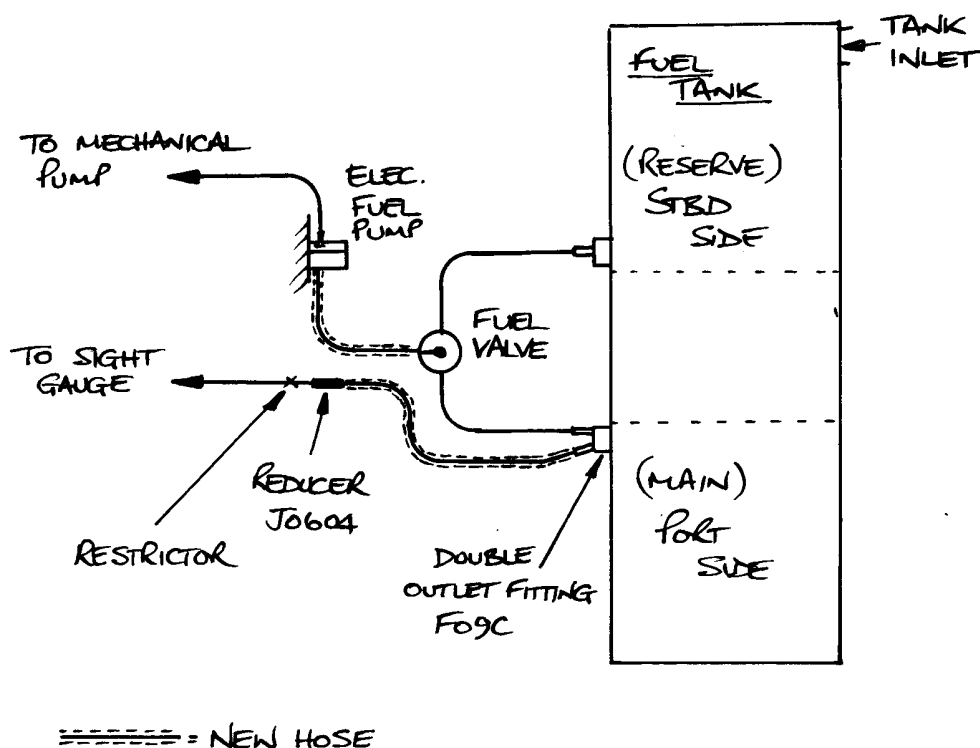


Fig 1. Fuel sight gauge connections.

Figure 1 shows a diagrammatic representation of the modified system, with the left tank as the main.

Action

Screw the hose union FPA903/A into the tapped section of the new fuel fitting F09C. Fabricate and fit a gauze strainer as was done for the original fitting.

Drain the main tank by any appropriate means - one method is to disconnect the fuel line at the engine mechanical pump, and operate the electric pump with the aircraft tail raised.

Remove and discard the existing fuel outlet fitting from the main tank, and replace it with the new fitting assembly. Disconnect the hoses connecting the fuel valve to the tee, and the tee to the fuel filter. Discard the hoses, but retain the tee for future use if the optional water drain valve modification is installed.

Using the supplied hose connect the fuel valve direct to the fuel filter. Reconnect the fuel line to the fuel valve from the straight port of the fuel outlet fitting. Using the supplied hose connect the other port to the fuel level sight gauge reducer J0604.



If you have exercised the option to use the left side as the main tank, re-placard the fuel valve appropriately. Refuel the aircraft and check for leaks. Annotate the aircraft records - Mod 31 incorporated.