

Olympus 201 SeriesSection 22FLIGHT REFUELLINGIntroduction

Flight Refuelling is utilized when there is a requirement for the maximum bomb load together with maximum fuel load. The aircraft is fully loaded on the ground at the expense of fuel. When operational height is attained flight refuelling is carried out. It is essential that maximum fuel load is now carried and therefore there will be no necessity to provide for a proportioning system. The float switch in each tank is allowed to close the refuelling valves.

Equipment

The probe consists of an outer tube through which passes a fuel pipe to a nozzle at the forward end. A pipe passes between these two tubes. The pipe supplies nitrogen. As the supply of fuel has to pass through the pressure cabin, strengthened pipes, non return valves and other safety precautions are observed to prevent fire risks. The system is controlled from the Flight Refuelling Control Panel.

Operation

1. Operate Flight Refuelling Master Switch which will automatically:-
 - (a) Energise all refuelling valves open.
 - (b) Illuminate tank indicator lights
 - (c) Depressurise all tanks
 - (d) Energise the C of G Indicator
2. Contact with drogue may now be made.
3. All tanks are refuelled at the same time, a float switch closing the refuelling valve and extinguishing the tank content indicator.
4. Rate of flow is 500 gall. per min. When all indicators are off return Master switch to "OFF".
5. During refuelling correction for C of G changes is accomplished by the three switches on the top of the fuel control panel. Centre switch Port and Starboard side only. Transfer switches satisfy for nose or tail heavy conditions.
6. To clear probe of fuel. Operate the Nitrogen Purge switch. This allows nitrogen to flow into the probe and pushes the fuel into both No. 2 tanks, the refuelling valve being energised by the switch.

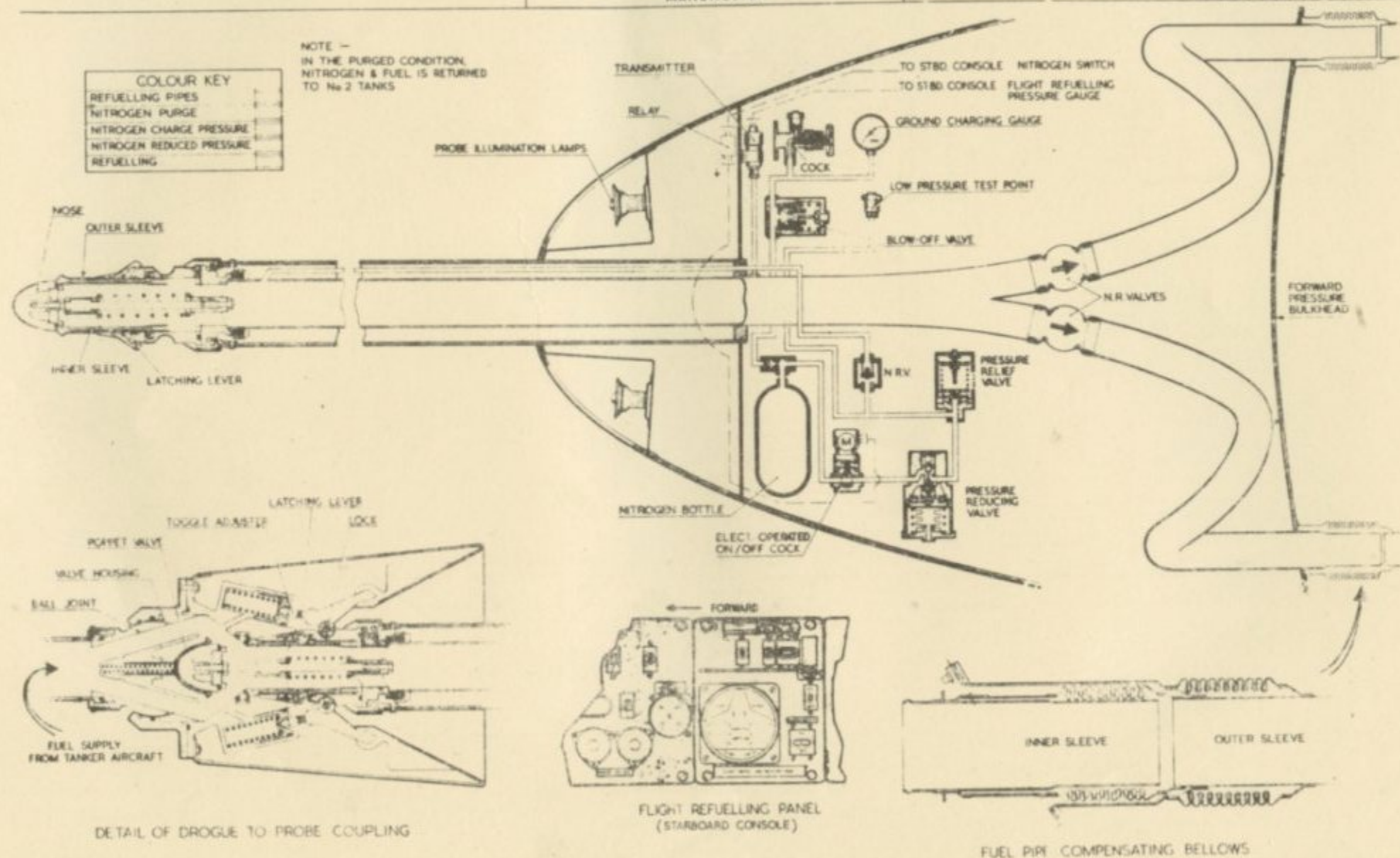


A-V-ROF & CO LIMITED
MANCHESTER

FUEL SYSTEM

FLIGHT REFUELLING

MA. NO. 10
D. 101 (1946)



DETAIL OF DROGUE TO PROBE COUPLING

FLIGHT REFUELLING PANEL
(STARBOARD CONSOLE)

FUEL PIPE COMPENSATING BELLOWS

BCVSS

A.P.4505B, Vol.1, Book 1, Sect.4, Chap.2
A.1.4, Jan.60

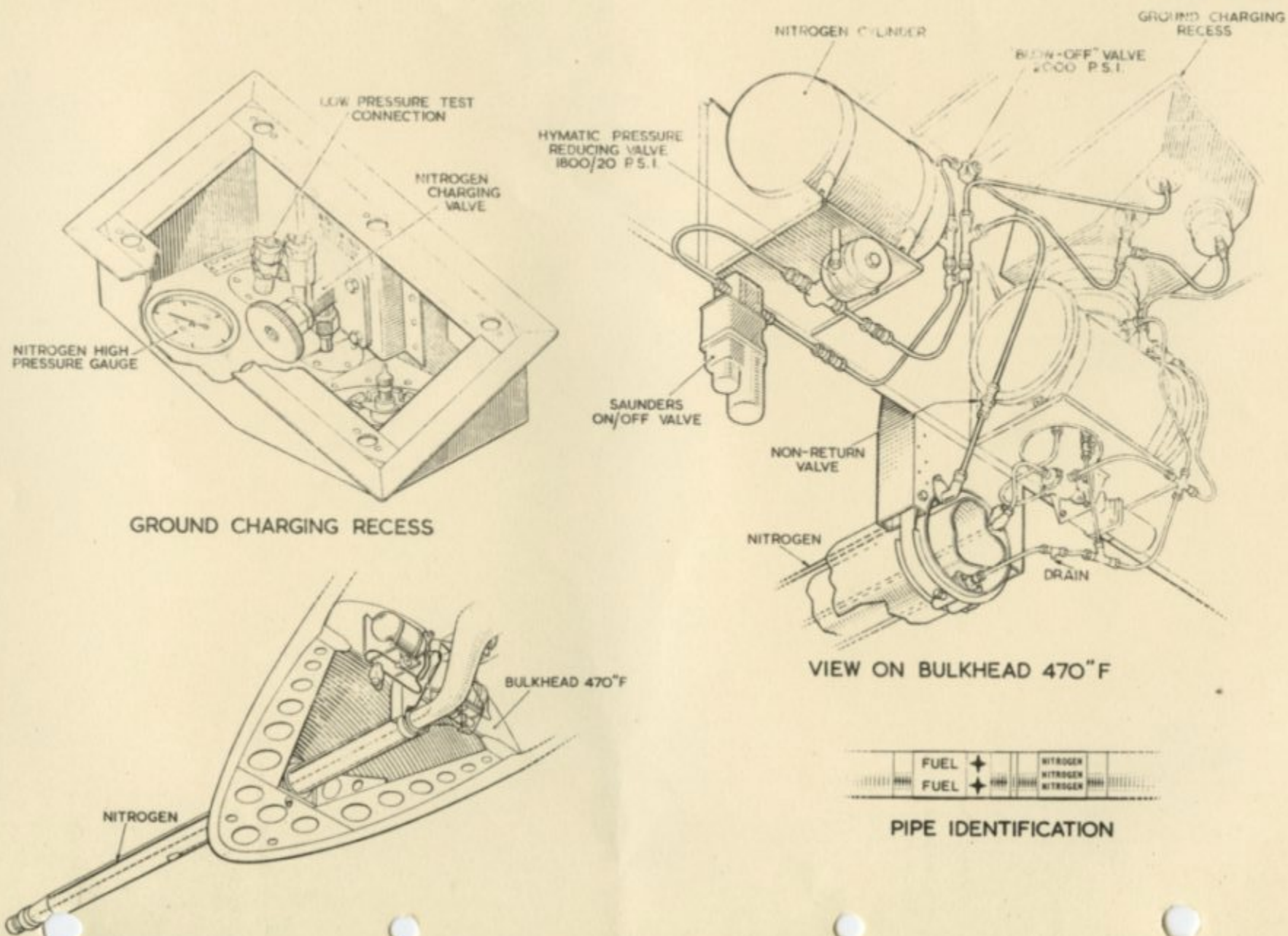


Fig. 10 Nitrogen purge - flight refuelling

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