

OLYMPUS 202/301SECTION 4FUEL SYSTEM SERVICINGBleeding The Fuel System

It is essential that the fuel system is bled under the following circumstances to ensure the removal of all air:-

- a. Before starting the engine after installation
- b. After de-inhibiting the fuel system
- c. When a fuel system defect is suspected
- d. After any part of the fuel system has been disconnected
- e. When the L.P. fuel cocks have been closed before the engine ceased to rotate
- f. After draining and subsequent filling of the aircraft fuel tanks

2. Method

- a. L.P. cock 'ON'
- b. H.P. cock SHUT
- c. Tank Booster pumps 'ON'
- d. At the engine L.P. fuel filter:-
 - (1) Open filter drain and drain off sufficient fuel to ensure complete removal of all water. Close and lock drain.
 - (2) Attach a short length of hose to the bleed valve. Open the bleed valve and when bubble free fuel emerges from the hose, close the bleed valve
- e. At the combustor fuel chamber bleed:-
 - (1) Attach a short length of hose to the bleed valve. Open the bleed valve and when bubble free fuel emerges from the hose, close and lock the bleed valve.
- f. At the L.P. and H.P. compressor driven fuel pumps:-
 - (1) Attach a short length of hose to the reset valve and governor chamber bleed valves of each pump in turn. When bubble free fuel emerges from the hoses, close the bleed valves.

Note

During the bleeding of the L.P. and H.P. driven fuel pumps, the appropriate compressor must be rotated using the hand turning equipment.

Para 2 Cont.

- g. With the engine running:-
 - (1) After the static bleeding start the engine and run at IDLING R.P.M.
 - (2) Attach a short length of hose to each bleed valve in turn. Open the bleed valve and when bubble free fuel emerges from the hose, close the bleed valve.
 - (3) Stop engine and lock all bleed valves.

Caution

During the bleeding of the fuel pumps, do NOT move the throttles to the 'OPEN' position as overspeeding will occur.

3. Fuel System Adjustments

a. Idling R.P.M.

- (1) Throttle control. IDLING (Engine Warm)
- (2) Alternator. ON and fully loaded (202)
Alternator. OFF (301)
- (3) Check that the R.P.M. is within the limits laid down in the graph, Vol 1, Sect 3, Chap 2, Fig 1.
- (4) If necessary adjust the idling R.P.M. using the idling trim adjuster on the F.R.F.C, to the limits laid down by the inner band of the graph.

b. Cruise R.P.M.

- (1) R.P.M. Selector switch. CRUISE
- (2) J.P.T. Limiter. OFF
- (3) Throttle control - move gradually to fully OPEN.
- (4) Check that the R.P.M. is within the limits laid down in the Operating Limitations.
- (5) If necessary, adjust on the Cruise Adjuster of the L.P. driven fuel pump.

c. Take Off R.P.M.

- (1) R.P.M. selector switch. TAKE OFF
- (2) J.P.T. Limiter. ON
- (3) Throttle control - move gradually to fully OPEN
- (4) Check that the R.P.M is within the limits laid down in the Operating Limitations.
- (5) If necessary, adjust on the Take Off adjuster on the L.P. driven fuel pump.

/Note

Para 3 Cont.

Note

If the ambient temperature is 20°C or over, the J.P.T. will rise to the take off limit and since the J.P.T. Limiter will now be controlling, the R.P.M. will be less than the take off limit. To overcome this difficulty and to ensure that the L.P. compressor Max R.P.M. governor will control at the limit specified in the Operating Limitations, adjust the governor setting as described in the appropriate Vol 1.

Vol 1, Sect 3, Chap 2A, para 57, (202)

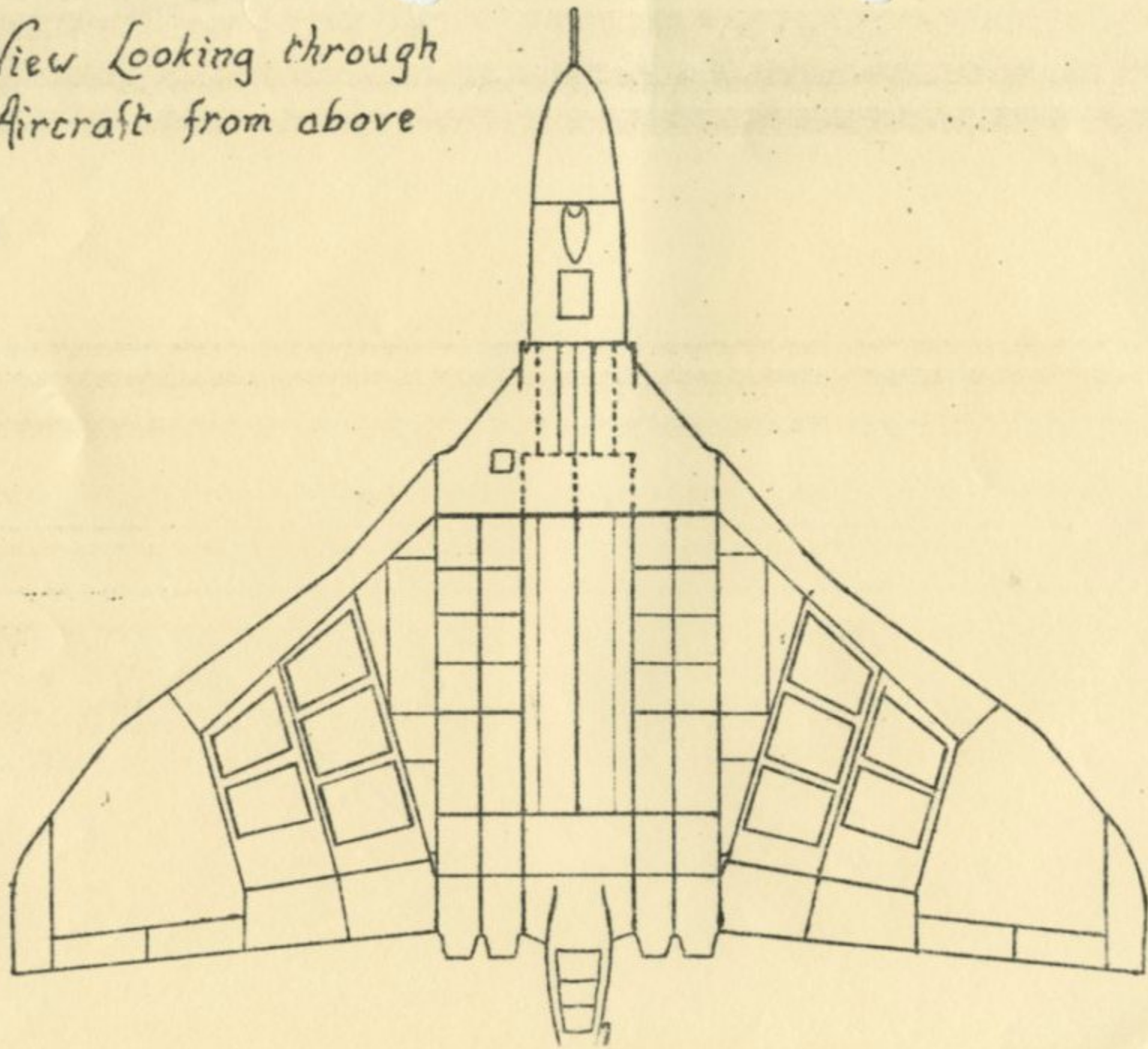
Vol 1, Sect 3, Chap 2, para 54, (301)

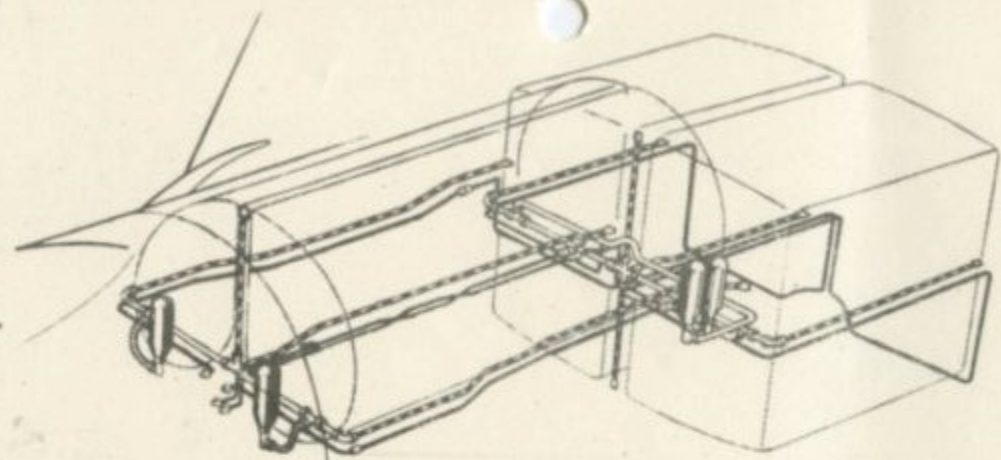
Caution

Do NOT on any account disturb the two rate reset valve adjustments.

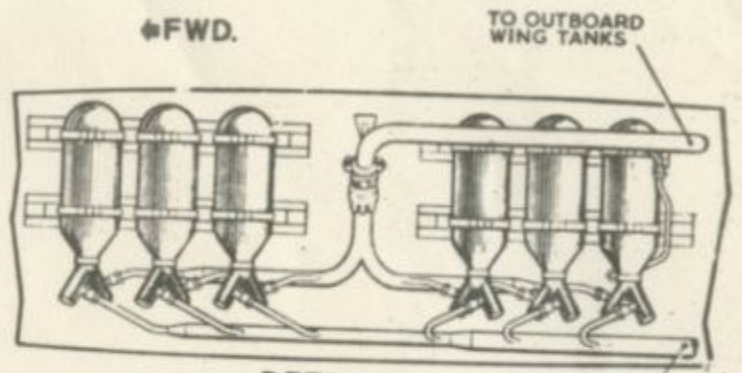
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View Looking through
Aircraft from above





FUSELAGE TANKS



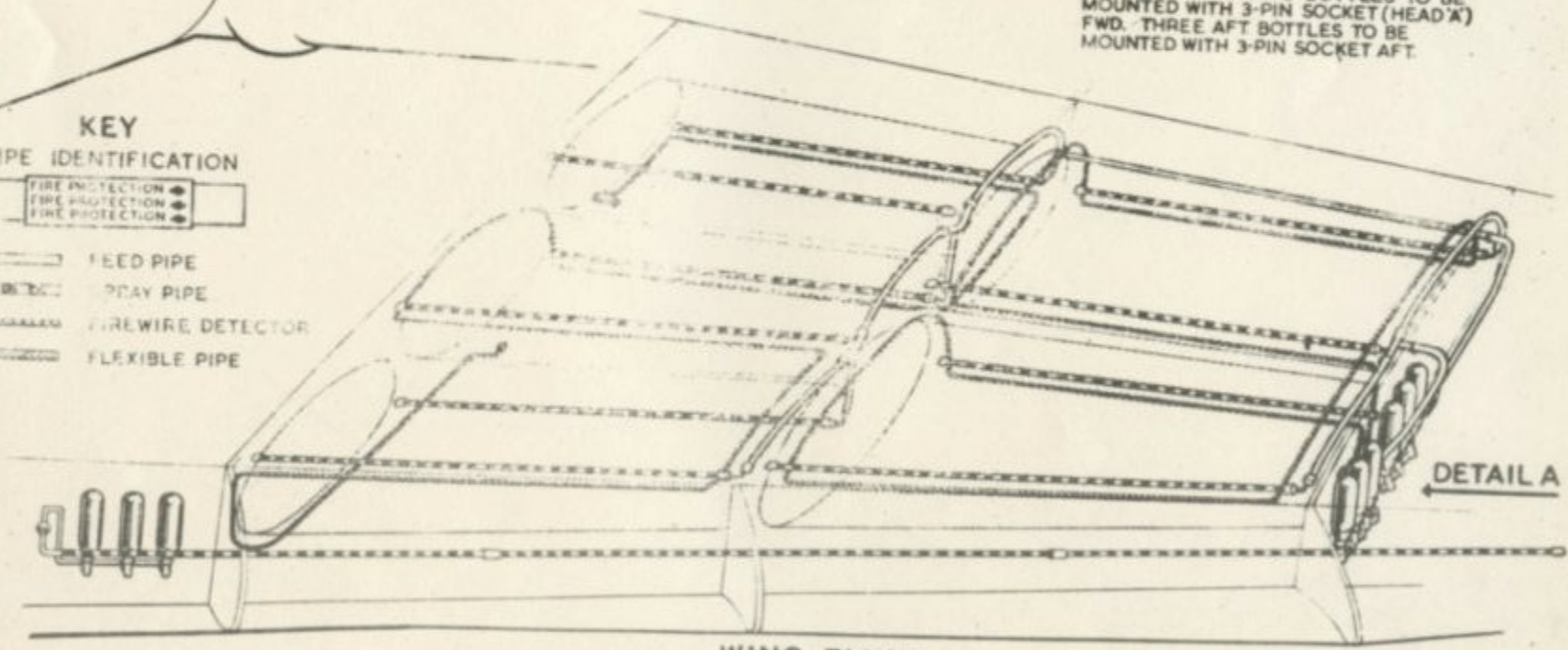
DETAIL A

NOTE...
 THE THREE FORWARD BOTTLES TO BE MOUNTED WITH 3-PIN SOCKET (HEAD 'A') FWD. THREE AFT BOTTLES TO BE MOUNTED WITH 3-PIN SOCKET AFT.

KEY

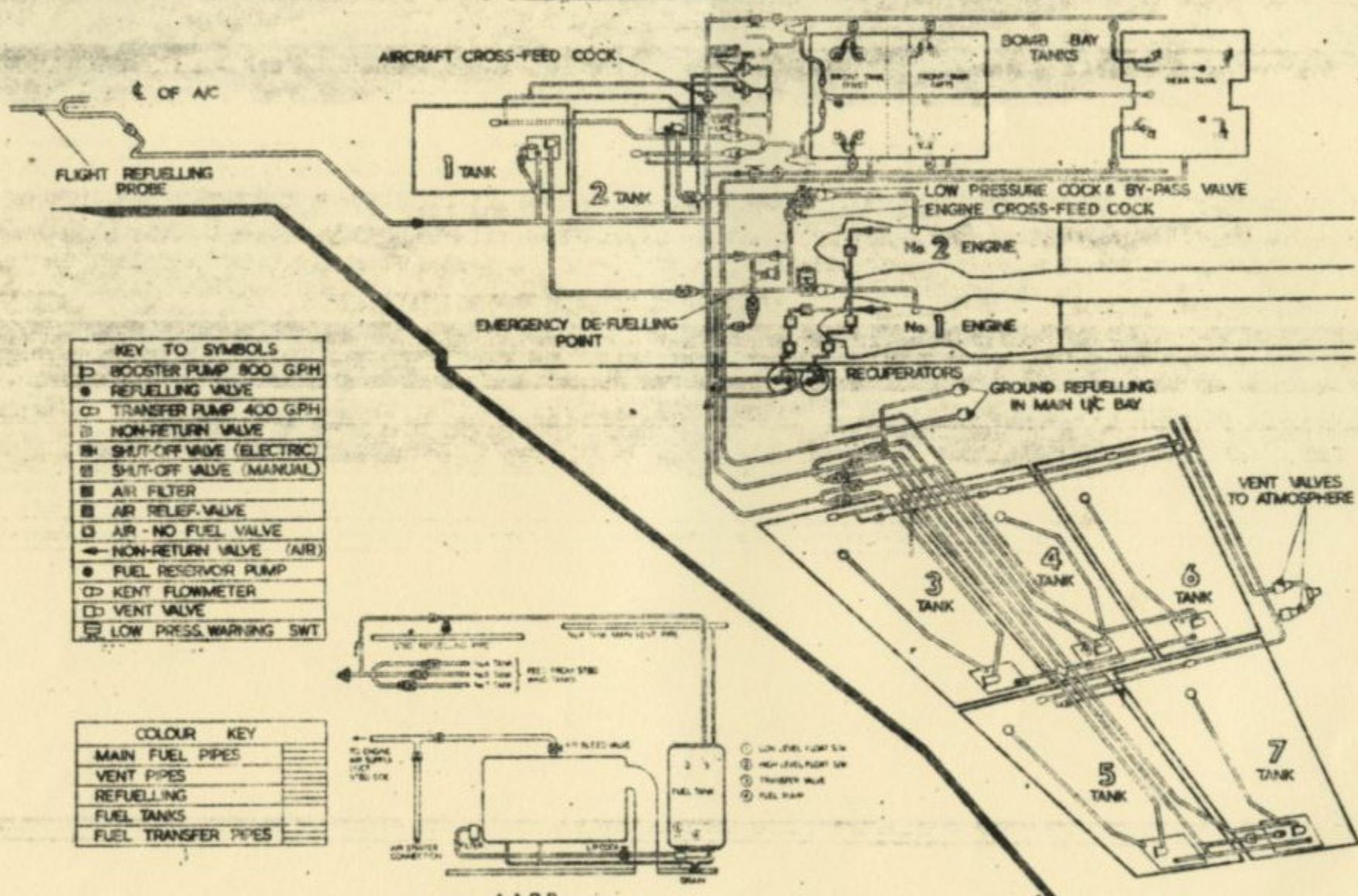


- FEED PIPE
- DRAIN PIPE
- FIREWIRE DETECTOR
- FLEXIBLE PIPE



WING TANKS

DETAIL A

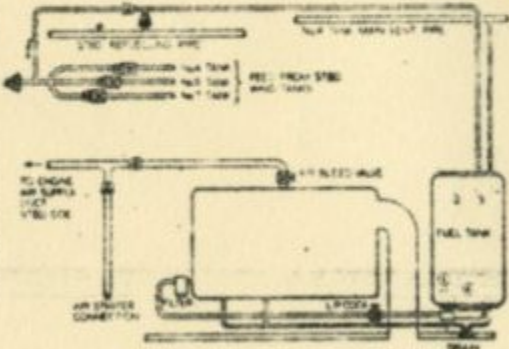


KEY TO SYMBOLS

☐	BOOSTER PUMP 800 GPH
●	REFUELLING VALVE
◻	TRANSFER PUMP 400 GPH
▢	NON-RETURN VALVE
⊞	SHUT-OFF VALVE (ELECTRIC)
⊞	SHUT-OFF VALVE (MANUAL)
■	AIR FILTER
■	AIR RELIEF VALVE
□	AIR - NO FUEL VALVE
←	NON-RETURN VALVE (AIR)
●	FUEL RESERVOIR PUMP
◻	KENT FLOWMETER
◻	VENT VALVE
⊞	LOW PRESS. WARNING SWT

COLOUR KEY

—	MAIN FUEL PIPES
—	VENT PIPES
—	REFUELLING
—	FUEL TANKS
—	FUEL TRANSFER PIPES



AAPP FUEL SYSTEM - STARBOARD

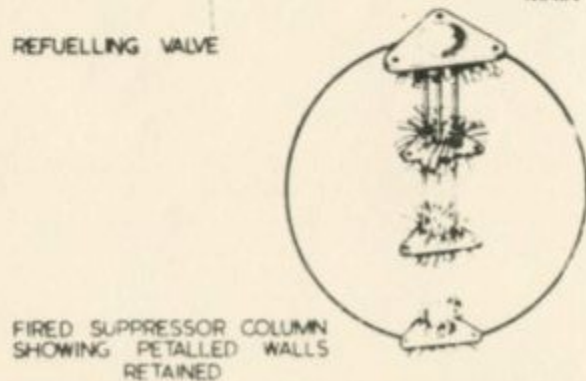
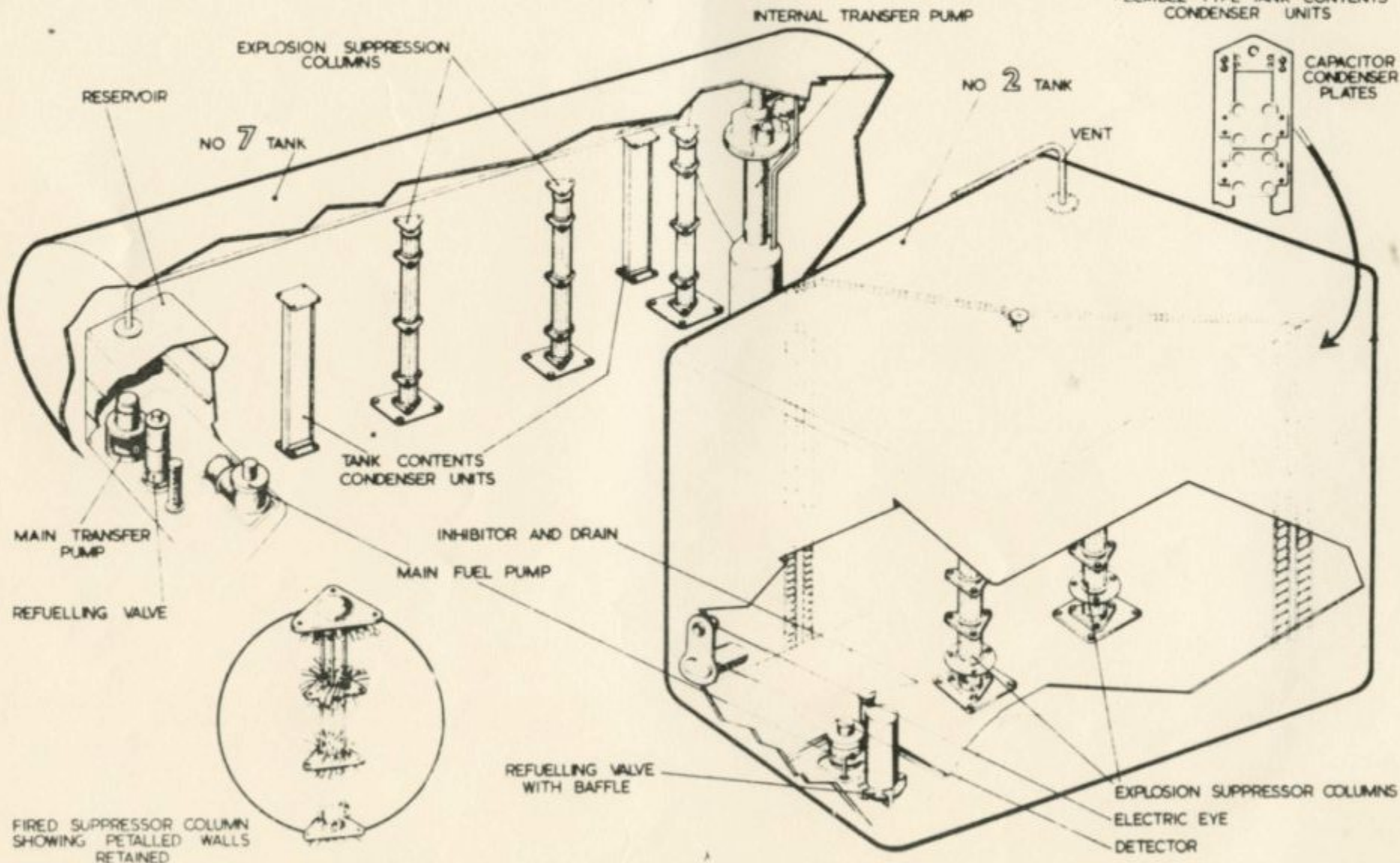
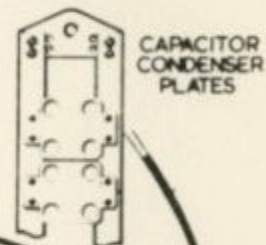


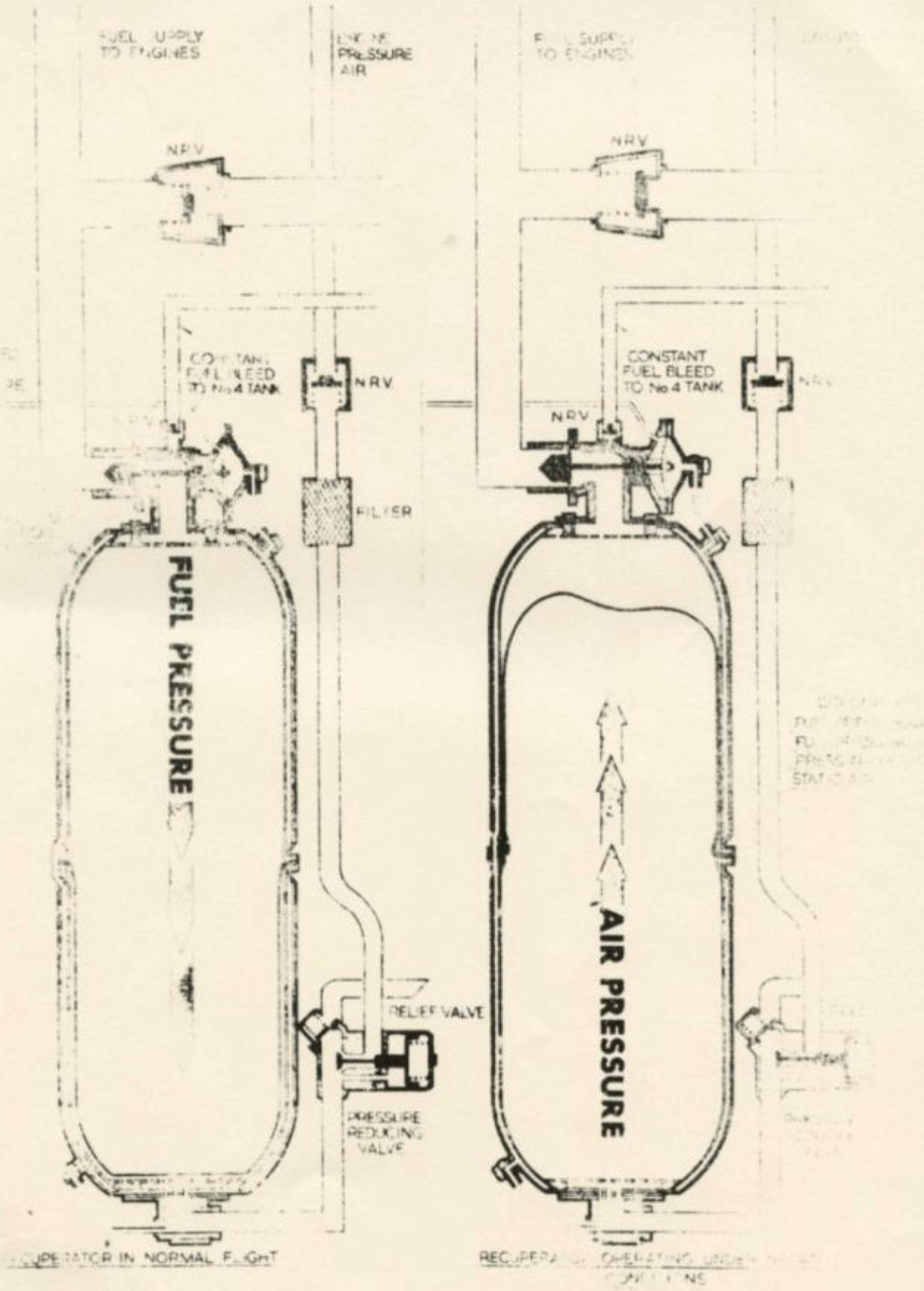
A·V·ROE & CO LIMITED
MANCHESTER

FUEL SYSTEM TANK DETAILS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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FLEXIBLE TYPE TANK CONTENTS
CONDENSER UNITS





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