

CHAPTER 1

GENERAL INFORMATION

(Completely revised)

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Introduction

1. This section contains general information showing location of units, power supplies and installation details for the EW installations that may be fitted to the Vulcan B Mk.2 aircraft.

DESCRIPTION

CONTROLS

2. Control of the complete installation is

by the AEO. The control and indicator units for each ARI are grouped at the crew stations. Location illustration for the complete EW installation is provided in fig.1.

TRANSMITTER AND POWER UNITS

3. The units of the installations are installed in the tail section of the rear fuselage. These units are in the form of cylindrical canisters which are large and heavy. They are mounted

vertically on resilient mounting rings as shown in fig.2. Special handling techniques and equipment are necessary and details of these will be found in AP 101B-1902-1A.

Canisters

4. The rear fuselage canisters are pressurized with nitrogen and due to their large consumption of electrical power, require special cooling facilities during operational periods. This cooling is provided by a

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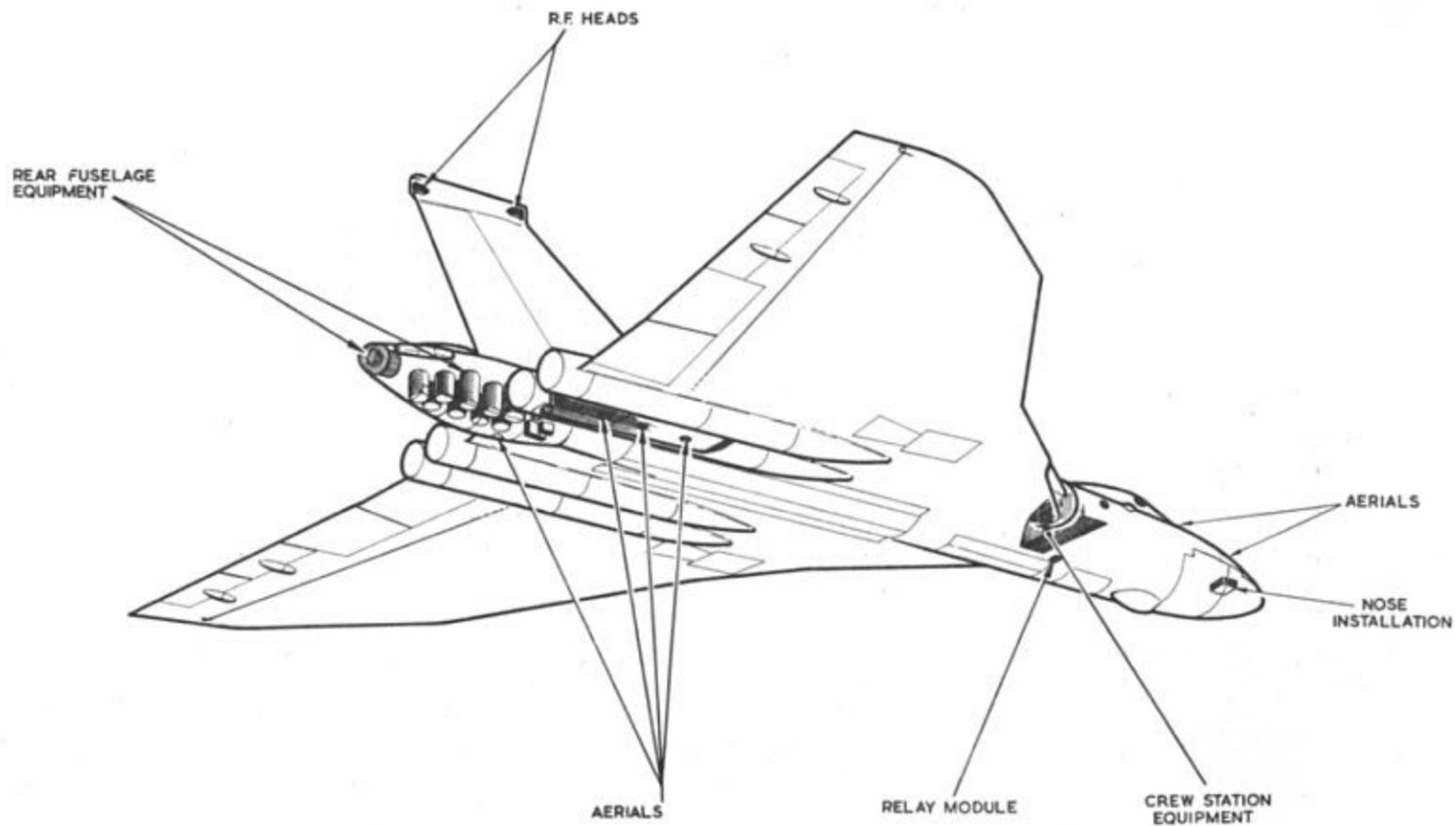


Fig. 1 Location of equipment

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water/glycol system, the fluid being circulated through vapour cycle heat exchangers. Further details will be found in AP 101B-1902-1B, Cover 2, Sect.6, Chap.22.

Canister mounting details

5. Located on the base of each canister are the following items:-

- (1) Input, output and control circuit connector plugs and sockets.
- (2) Water/glycol inlet and outlet couplings.
- (3) Schrader pressure inlet valve.
- (4) Pressure relief valve.
- (5) Desiccator viewing window.
- (6) Three unit/canister retaining bolts.

6. Attached to the three retaining bolts at the base of each canister is a cylindrical mounting, enabling the canisters to be secured to the cross beams of the rear aircraft fuselage structure. On the outer face of each base mounting are two plates, each attached by four anti-vibration mountings. The plates are equipped to accommodate screw-pins which secure the mountings to the structure.

7. On the top of each canister is a top mounting attachment, which serves to steady each canister and also provides a means of attaching the hoisting gear to the canisters. Each top mounting, which takes the form of a spider plate, is attached to the retaining bolts at the top of the canister. In the centre of the mounting plate is a spigot mounted anti-vibration unit which locates into a steadying cup on the rear fuselage roof structure when the canisters are hoisted up and locked into position.

8. The canister base and top mountings are all similar in size and design, but vary slightly in type.

9. Fig.2 shows the correct position of the mountings to the canisters and the mountings attached to the canisters in relation to the cables and cooling pipes. To ensure the correct location and positioning of the canisters, each position in the rear fuselage is identified with the type number of the appropriate canister. A leg on each canister base is painted with a red mark which corresponds to a similar mark on the aircraft structure.

Hoisting equipment

10. The canisters are hoisted into position and lowered to the ground by means of standard 'Minihoist' equipment used in conjunction with hoisting cables and pulleys which form part of the rear fuselage fixed fittings. Further details will be found in AP 101B-1902-1A.

ELECTRICAL POWER SUPPLIES

11. Electrical power supplies are provided at 28-volts dc and 200-volts 3-phase, 400 Hz ac. The dc supplies are fed from fuses located on panel 48P, the 200-volts ac supplies are fed from fuses on panel 14P. Further details of the power supplies will be found in Sect.6, Chap.22 of this publication.

Load shedding

12. In the event of failure of two or more ac generators in flight, the EW load with the exception of ARI-182281/1 and ARI-5952 will be automatically shed in order to conserve power for more essential circuits.

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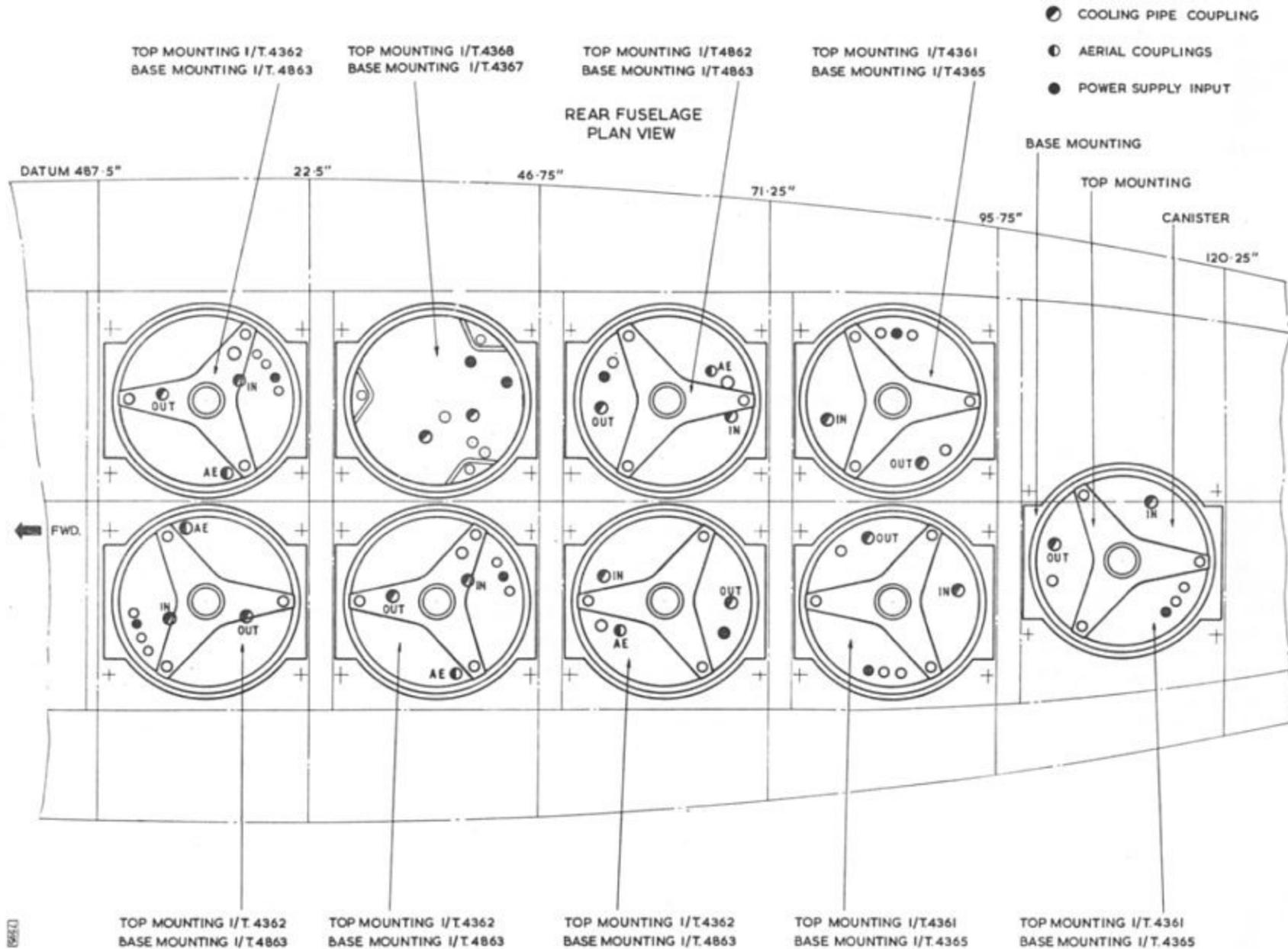


Fig.2 Location of canister mountings in rear fuselage

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