

Group I GENERAL INFORMATION

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Introduction

1. This group contains a general description of the instrument installation of this aircraft as a whole, including the general servicing information required to maintain the installation in an efficient condition. An illustration showing the location of all the instruments and components is also included, together with instructions for removing the instrument panels. For detailed information on the standard items of equipment used, reference should be made to the appropriate Air Publications, a list of which will be found at the beginning of this volume.

INSTALLATION DETAILS

General

2. Electrical and air pressure operated instruments are installed in this aircraft. The electrically-operated instruments obtain their supply from a.c. supplies circuit, as described in Sect. 5, Chap. 1 of this volume, and the air pressure operated instruments are supplied from a pressure head carried on a tube projecting forward from the port wing tip, as explained in Group 3 of this chapter. The majority of the instruments are mounted on the instrument panel and on the cockpit shelves. The instrument panel consists of separate centre, port and starboard panels, which are attached by anti-vibration mountings to a structure extending from frame 8. The cockpit shelves extend aft, one on each side of the cockpit from the port and starboard instrument panels to frame 12. The centre instrument panel carries the flying and engine instruments, the port and starboard instrument panels carry certain controls, indicators and instruments, while the cockpit shelves contain the fuel gauges, indicators and various switches. The gyro gun sight and camera recorder are carried on a retractable mounting above the centre instrument panel.

INSTRUMENT PANEL MOUNTING STRUCTURE

3. This mounting structure consists of a tie member extended transversely at the top of frame 8 and two large brackets, which project towards each other from the inboard edges of frame 8, below the tie member. Each of these brackets is stiffened by a strut

extending from its inner end to frame 7 and a cross tube, supporting the electrical cables forward of the instrument panels, passes between these two struts. The tie member carries two brackets at its outboard ends, to each of which is assembled a pair of Lord mountings and a further pair of Lord mountings are incorporated at the inboard end of each of the brackets below the tie member. Each outboard end of these latter brackets has a smaller bracket attached, which projects aft and carries an Andre B.134/AD/4 rubber mounting block. Further rubber mounting blocks are attached to brackets mounted on the underside of the port top longeron, the windscreen starboard platform and on each side of the decking. The centre instrument panel is supported by brackets on the four pairs of Lord mountings and the port and starboard instrument panels are carried on the rubber mounting blocks. Each instrument panel is bonded to the aircraft structure by earthing connectors at each of the Lord mountings and at four of the rubber mounting blocks.

PANELS AND SHELVES

4. The centre, port and starboard instrument panels are all constructed of 10 gauge light-alloy sheet, which is lightly shot blasted and finished matt black. The instruments, indicators and switches are mounted through suitable holes in the panels and are identified, where necessary, by eau-de-nil coloured lettering. The top panels of the cockpit port and starboard shelves are constructed of 18 gauge light-alloy sheet, which is also finished matt

black in a similar manner to that of the instrument panels. The instruments on these panels are also mounted through holes and identified by similar lettering to that on the instrument panels. For a description of the mountings of the cockpit shelves, reference

INSTRUMENT PANELS

6. These panels should be examined periodically for distortion, security and to ensure that the anti-vibration mountings are serviceable and not damaged in any way. If damaged, they must be replaced without delay. All the earthing connectors at the anti-vibration mountings should also be examined to ensure that they are not broken and that they are making good electrical connections. When re-fitting earthing connectors care must be taken to ensure that the surfaces in contact are perfectly clean and, in particular, free from grease and paint. Completed assemblies should be protected by applying one coat of blue oil-base paint to

General

10. The following paragraphs describe the recommended methods of removing the instrument panels. In general, the assembly of these components is a reversal of the removal procedure, but where there is any special assembly feature this is covered by a note in the appropriate paragraph of this group.

CENTRE INSTRUMENT PANEL

11. This panel is mounted on four pairs of Lord mountings attached to the mounting structure on frame 8. The recommended procedure for removing this panel is as follows:—

- (1) Render the aircraft electrically safe, as described in Sect. 5, Chap. 1, Group A1 of this volume.
- (2) Disconnect cable assemblies F12 and F32 from the leg panel and coil them back to the centre instrument panel, releasing the clips and straps as found necessary. Seal off the plugs and sockets with approved caps and covers.

should be made to Sect. 5, Chap. 1, Group A1 of this volume.

INSTRUMENTS

5. The majority of the instruments installed in this aircraft are standard items of equip-

GENERAL SERVICING

D.T.D. Spec. 62B. The mounting structure for the panels should also be examined for damage and distortion, all the instruments on the panel should be examined for security and any insecure attachments rectified immediately.

COCKPIT SHELVES

7. For the general servicing information required for these shelves, reference should be made to Sect. 5, Chap. 1, Group A1 of this volume.

INSTRUMENTS

8. The necessary servicing to maintain the instruments in an efficient condition and the Standard Serviceability Tests which should be

REMOVAL AND ASSEMBLY

- (3) Disconnect cable assembly AH.1 at the plug and socket break on the starboard strut of the instrument panel mounting structure. Seal off the plug and socket with an approved cap and cover.
- (4) Disconnect both cables from the gyro compass and stow them out of the way, after fitting approved caps and covers to the plugs and sockets.
- (5) Disconnect the pressure and static pipe-lines of the pressure head installation from the connectors on the forward face of the panel. Blank off the pipe-lines and connectors to prevent the entry of dirt and moisture.
- (6) Remove the four nuts and washers securing the panel to the brackets on the Lord mountings, withdraw the panel from the brackets and remove from the aircraft, taking care not to damage the instruments.

◀ Note . . .

When refitting this panel on aircraft pre-mod.

ment, which are fully described in the relevant volumes of A.P.1275 series, to which reference should be made when it is required to obtain any information not contained in this chapter.

applied, together with the equipment to be used and the method of conducting the tests, is contained in the relevant Air Publications for the instrument concerned. Reference is made to these publications in the appropriate groups of this chapter. Before servicing or removing any of the electrically-operated instruments, the aircraft must be rendered electrically safe, as described in Sect. 5, Chap. 1, Group A1 of this volume.

LOCATION OF EQUIPMENT

9. The location in the aircraft of all the instruments and their associated equipment is illustrated in fig. 1 of this group.

502, particular care must be taken to check that the pressure and static flexible tubing is undamaged and is positioned on top of the cross-bracing strut (Pt. No. F187864). ▶

PORT INSTRUMENT PANEL

12. This panel is mounted on three rubber mounting blocks attached to brackets on the underside of the port top longeron, the port decking skin and to the centre instrument panel mounting structure. The recommended procedure for removing the panel is as follows:—

- (1) Render the aircraft electrically safe, as described in Sect. 5, Chap. 1, Group A1 of this volume.
- (2) Disconnect cable assembly F13 from the plug and socket break between frames 7 and 8 on the port side of the fuselage. Coil the cable back to the instrument panel, releasing any clipping found necessary and seal off the plugs and sockets with approved caps and covers.

RESTRICTED

- (3) Release the flap emergency control from the valve forward of the instrument panel by removing the split-pin and withdrawing the attachment pin.
- (4) Remove the three nuts and spring washers securing the panel to the rubber mounting blocks. Disengage the two earthing connectors at the outboard attachments and withdraw the panel from the mounting blocks. Remove the panel from the aircraft, taking care not to damage the instruments.

Note . . .

When assembling the panel, ensure that the earthing connectors are fitted correctly and making good electrical contacts, as described in para. 6 of this group.

STARBOARD INSTRUMENT PANEL

13. This panel is mounted on three rubber mounting blocks attached to brackets on the windscreen starboard platform, the starboard decking skin and to the centre instrument panel mounting structure. The recommended procedure for removing the panel is as follows:—

- (1) Render the aircraft electrically safe, as described in Sect. 5, Chap. 1, Group A1 of this volume.
- (2) Disconnect cable assembly F11 from the leg panel and coil it back to the instrument panel, releasing any clipping found necessary. Seal off the plug and socket with an approved cap and cover.
- (3) Remove the three nuts and spring washers securing the panel to the rubber

mounting blocks. Disengage the two earthing connectors at the outboard attachments and withdraw the panel from the mounting blocks. Remove the panel from the aircraft, taking care not to damage the instruments.

Note . . .

When assembling the panel, ensure that the earthing connectors are fitted correctly and making good electrical contact, as described in para. 6 of this group.

COCKPIT SHELVES

14. The recommended procedure for removing the cockpit port and starboard shelves is fully described in Sect. 5, Chap. 1, Group A2 of this volume.



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