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Chapter 15

FURNISHINGS AND INTERIOR FITMENTS

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tables

1. The contents of this chapter are grouped under three headings as follows:-

Introduction

- Interior fittings, comprising all structural fittings which are not part of the essential structure, and crew amenities.
- (2) Soundproof trimming and black-out curtains.
- (3) Crew seats and cushions.

INTERIOR FITTINGS

DESCRIPTION

Pilots' and front gunner's seat ...

General

2. Bulkheads are fitted at various formers throughout the fuselage interior (fig.1). They serve to separate compartments and facilitate the fitting of instrument panels, equipment and tables at certain crew stations. Full compartment bulkheads at formers 15 and 22 are fitted with doors. Bulkhead and door assemblies are of a light-alloy honeycomb structure, faced on both sides with a thin skin of light-alloy and attached to the formers by angle section brackets.

Air bomber's cushions

NOTE ...

With the exception of the flight engineer's station, facing forward, on the starboard side, the remaining crew stations in the tactical compartment are disposed sideby-side, along the port side of the fuselage.

A.P.101B-1703-1B1, Sect.3, Chap.15 A.L.32, May 69

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Fig!l, Location of bulkheads and seats **RESTRICTED**



Fig. 2. Navigators' tables.





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3. This bulkhead is made up of two sections which extend, one from each side of the fuselage, to the centre, leaving a gangway into the pilot's station. The starboard section carries the flight engineer's instrument panels and table on its aft face. The table has a hinged flap giving access to the table stowage.

4. The signaller's station on the port side of the aircraft is flanked by the bulkhead at former B, on one side, and by a bulkhead at former 1A on the other, both of which carry wireless equipment. A table running fore-and-aft is secured to the bulkheads by independent anti-vibration mountings (fig. 2).

Navigators' tables

The navigators' tables, one running 5. aft of the other (fig.2), are secured by independent anti-vibration mountings to the aft face of the bulkhead at former 1A, the front spar and a common centre support at former 4. The forward table, equipped for the tactical navigator, is constructed to include a chart stowage, the hinged lid of which constitutes the table surface. Aft of this is the routine attack navigator's table, which runs aft from the centre support and terminates at the front spar cover to which it is secured. The table is provided with a detachable, glass plotting top, for which a stowage is provided on the front spar forward face adjacent to the routine attack navigator's seat.

Sonics operators' tables

6. Situated between the front and rear spars, the tables at these stations are, in effect, three separate units supported by the spars and bulkheads at formers 9 and 10 on each side of the port ditching exit. The unit between formers 7 and 9 is the master sonics table (fig.3) and the one aft between former 10 and the rear spar, the secondary sonics table (fig.4). Of similar construction, they are a combined table and stowage assembly, the rear portions having stepped and sunken sections for equipment and instrument stowage, and the front sections constructed in the form of a chart stowage with a hinged flap in the upper surface (fig.4).

Between these two units is a small 7. drop table, hinged outboard on two pins fitted to the bulkheads at formers 9 and 10, which constitutes the subsidiary sonics table. It is secured in position by two spring-loaded, hand-operated, quick-release pins, which engage in two housings, one on each bulkhead inboard face, the operating handles are located in a shallow dishing in the inboard face of the table (fig.4). Release of the pins allows the table to be swung down providing access to the port side ditching exit. This table also contains a stowage, the hinged lid of which forms the table surface. Outboard of the table is the access panel to a ditching rope stowage.

A.S.V. operator's table

This station is located between the 8. rear spar and a bulkhead at former 15, the associated table being secured to the spar cover and the bulkhead by independent anti-vibration mountings. Of similar construction to the tables at the sonics positions, in being a combined table and stowage assembly, the outboard portion is stepped and shelved at an angle to form a base for instrument and equipment mounting, and the inboard section is constructed to form a chart stowage with hinged flap. A further small table top adjoins with the secondary sonics table and carries a rail quadrant, allowing equipment with a common use to both operators, to be slid to either position (fig.4).

Bulkhead at former 15

9. A bulkhead and door assembly is fitted at former 15 with the door hinge post slightly to starboard of the fuselage centre line. The assembly is of fabricated honeycomb structure, being stiffened and reinforced with plate and internal box section members. Attachments are provided for fitting and stowage of equipment, and a seat is fitted to the aft face of the bulkhead. The door, which opens rearwards, extends to the starboard side of the fuselage and is fitted with a window and louvred ventilator.

Bulkheads at former 22 and 34

10. The two beam observers stations are partitioned forward by a full width bulkhead incorporating a rearward opening door, and aft by a partial bulkhead and sliding curtain. The partial bulkhead and curtain separates the beam observer's station from the toilet compartment. Galley equipment is fitted to the starboard forward face of the bulkhead at former 22, and the port section has attachments for the positioning and support of three bunks, on its forward face.

11. A pyrotechnic stowage is fitted to the aft face of the port section of the bulkhead at former 22 and oxygen and intercomm. points are fitted to its forward port face. Stowage is provided on the forward port face of the bulkhead at former
29 for binoculars and equipment required by the port beam observer whose seat is forward of former 29. A periscope for in flight viewing of the bomb compartment is stowed on the forward face port side of the bulkhead at former 34.

Galley

12. The galley, situated on the starboard side of the fuselage between formers 18 and 22 is equipped with a stainless steel sink unit and cupboards. The two forward cupboards are used for the storage of pre-frozen meal packs and the doors are marked REFRIGERATED MEALS, DO NOT OPEN UNTIL REQUIRED, the remaining cupboards provide stowage for cooking utensils, cups and food trays. A rapid

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Fig.4. A.S.V. and sonics operators' tables.

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DETAIL A ELSAN CLOSET AND OXYGEN PANEL

Fig. 7. Toilet compartment

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Fig.8. Septic tank

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water boiler is mounted adjacent to the sink. Additional equipment includes a hot cup unit, infra-red grill, oven and a stainless steel top which fits over the sink to give additional working surface. The galley installation is illustrated in fig.5 and the associated fresh and waste water systems are described and illustrated in Sect.3, Chap.13 of this Book.

Crew rest station

Between the bulkheads at formers 13. 15 and 22 on the port side of the fuselage is the rest station equipped with three bunks, mounted one above the other. The bunks are secured by integral springloaded plungers which locate in attachment brackets on the forward face of the bulkhead at former 22 and on the rear face of the half bulkhead at former 17A. All three bunks are fitted with leather covered foam rubber bed-and-pillow mattresses. The centre bunk is lowered to form a backrest when the bottom bunk is used as a seat. The space under the bottom bunk is utilized for the stowage of radio equipment. A fold-down table, mounted on the forward face of the bulkhead at former 17A, with its associated seat, attached to the rear face of the bulkhead at former 15, complete the rest station equipment.

Toilets

14. Aft of the partial bulkhead and sliding curtain at former 34 is the toilet compartment (fig.7). Situated on the port side is the Elsan chemical toilet installation and adjacent to this an oxygen supply point. Aft of this installation, a hand rail and guard, fitted over the exposed flying control rods, prevents obstruction of the rods by clothing or equipment. Opposite this rail is a crew relief tank.

15. A crew relief tube is stowed on the port side between formers H and G. This

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A.P. 4267E, Vol.1, Book 1, Sect.3, Chap.15 A.L.8, Nov 64



Fig. 9 . Pilots' and front gunner's seats.



Fig. 10 Crew members' seat.

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Fig.11. Collapsible seat, subsidiary sonics station



Fig.12. A.S.V. operator and master sonics seat

tube leads to a septic tank located on the port side of the nose-wheel compartment. The tank is fitted with a drain and a remotely operated drain valve.

SOUNDPROOF TRIMMING

16. Soundproofing is effected in the following manner:-

- A fibreglass blanket pad is made up to shape and size.
- (2) It is completely covered and bound round all edges with SEPTUM.
- (3) The complete pad is then secured in its location by:-
 - (a) Stitching through lightening holes in formers.
 - (b) The use of adhesives to the inner skin where lightening holes do not occur.
- (4) Synthede covered fibreglass panels are used to cover each area thus insulated.
- (5) Panels are secured by metal beading screwed to the various members, and in certain locations by press studs.

The method described is used extensively throughout the aircraft interior, from former K to former 37. The thickness of the fibreglass pad varies with its location, from 3 in. around the nose, pilots station, tactical compartment and rest centre, to 0.50 in. in the rear fuselage.

NOTE ...

SEPTUM is a transparent fire-resisting material resembling cellophane.

BLACKOUT CURTAINS

Interior curtains 17. These are made from fireproofed

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Fig.13. Air bomber's cushions

P.V.C. coated glass cloth material and are arranged as follows:-

- A sliding curtain is fitted between the flight engineer's and signaller's bulkhead at former B. When not in use, it is secured by retaining straps to the inboard edge of the signaller's bulkhead.
- (2) A sliding curtain is installed at the A.S.V. operator's station on rails which are attached to brackets between formers 17 and 18 and 15. When drawn, the curtain completely encloses the position, and, when not required, is secured to former 15 by straps.
- (3) A sliding curtain is fitted between the partial bulkhead and starboard side at former 34. When required, the curtain is pulled and fastened to the bulkhead by push buttons. When not in use the curtain is secured to former 34 by a retaining strap.
 - (4) At the forward end of the tail transparent fairing, curtains are attached to the top and sides of former 48. When required, the curtains are pulled together and joined with a zip fastener. When not in use they are stowed in straps attached to the former.

Curtains at windows

18. Similar fabric to that used for the interior curtains is used for all window curtains, including those on bulkhead doors. The two beam observers' windows can be blacked out by synthede covered light alloy panels, which are attached by pivot pins to brackets at the top of the windows and secured by knurled screw handles at the bottom.

CREW SEATS

Pilots' seats

19. Fig.9 illustrates the first pilot's seat, the second pilot's being identical with the exception that the controls are on the opposite side. Raising and lowering of the seat is effected with the aid of a control lever. When seat adjustment is required, the push-button at the end of the control lever is depressed, which releases the lock mechanism allowing the seat to go to its full 'UP' position, aided by a length of bungee incorporated in the supporting structure. The weight of the occupant will lower the seat. By releasing the control lever push-button the seat can be locked in any intermediate position.

Front gunner's seat

20. The front gunner's seat can be moved fore and aft or rotated; the control lever projects from below the seat on the port side (fig.9). With the control lever in the fully forward position the seat is locked. To obtain seat rotation the lever is pulled right back. Fore and aft movement is obtained by placing the lever in the centre of its range.

Engineer's and signaller's seats

21. These seats are of the fixed base

type and have no arm rests (fig.10). The engineer's seat is permanently fixed in the forward facing position and has provision for vertical movement only, controlled by a lever beneath the seat. The seat at the signaller's station can be rotated from facing fully outboard to 30 deg. aft facing. Levers controlling vertical and directional movement are mounted under the seat.

Navigators' and secondary sonics seats

22. The seats provided for the tactical navigator, routine navigator and secondary sonics operator are of the fixed base type, bolted directly to the floor. Each seat is fitted with one amrest, on the left-hand side of the seat, with an ash tray fitted on the amrest. The seats are adjustable, vertical and rotational movement being controlled by levers fitted under the seat.

A.S.V. and master sonics seats

23. The A.S.V. and master sonics operator's seats are of the detachable

base type, being secured by spring-loaded quick-release pins to brackets bolted to the floor. The A.S.V. operator's seat is fitted with two armrests whilst the master sonics operator's seat has no armrests. These seats are adjustable, vertical and rotational movement being controlled by levers fitted under the seat.

Subsidiary sonics seat

24. A collapsible seat is provided at the subsidiary sonics operator's station. The seat is secured by spring-loaded quick-release pins to brackets bolted to the floor. This seat is not adjustable and is not fitted with armrests.

Beam observers' seats

25. The port and starboard beam observers' seats are of the fixed base type bolted directly to the floor, each seat has two arm rests and is adjustable, vertical and rotational movement being controlled by levers situated below the seats. Ash trays are fitted to the arm rests.

CREW CUSHIONS

Air bomber's cushions

26. In the nose aft of the bomb-sight, four body cushions are provided for the air bomber who, when occupying this station is in a prone position. Cushions are arranged as shown in the illustration (fig.13). The front cushion is secured to the floor by web straps, the remaining cushions are attached to it, and held together, by press stud fasteners. When not required the cushions can be stacked over the air bomber's window and secured with retaining straps.

Rear observer's cushions

27. At the aft end of the fuselage, between formers 45 and 48, is a set of three cushions. They are provided for the rear observer, and are arranged in the following manner. Two leg cushions, fitted one to each door of the aft camera compartment, between these and former 48 is a single body cushion shaped to fit the taper of the fuselage. These cushions are secured to the floor and camera doors by press stud fasteners.

LUBRICATION

Crew seats

28. Periodic lubrication of all moving parts of seats, arm rests and adjustment gear should be carried out using the minimum possible quantities of oil, OX-14.

SERVICING

Sliding blackout curtains

29. No lubrication of the curtain rails or runners is permitted, this will cause dust and dirt to collect and foul the runners. If this occurs, the runners must be removed from the rails and curtains, thoroughly cleaned and allowed to dry before being fitted. The curtain rail must also be thoroughly cleaned and allowed to dry.

REMOVAL AND ASSEMBLY

CREW SEATS

30. When a seat or seats are to be removed the procedure involved is self evident and no specific sequence of operations need be observed.