Part I

Chapter 14—Entrance, Emergency Exits and Emergency Equipment

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Illustrations

1 Entrance to aircraft

(*a*) Entry to the aircraft is via the crew door on the port side of the fuselage; the door is hinged on its top edge and opens outwards. Two telescopic struts support the door in the open position. Two sockets are fitted to the door step for the entrance ladder. A windshield is fitted to both edges of the door to protect the crew when abandoning the aircraft.

(*b*) The door is opened from the outside by means of a lever, flush with the skin, fitted slightly forward at the bottom of the door. The skin below the lever incorporates a yale lock enabling the entrance door to be positively locked. When the unlocking handle is operated the action opens the door sufficiently for the edges to be grasped from the outside and pulled open.

(*c*) In the centre of the door above a porthole is a handgrip by means of which the door can be pulled shut. Two door fasteners are engaged by operating either the internal or external lever. The door periphery is sealed by an extruded beading on the doorway which bears against sheet rubber web on the door.

(*d*) The door is normally opened from inside by means of a lever, which lies in a slot in the doorway when not required, and covered by a spring-loaded flap. To open the door the lever is pulled down and swung inboard flush with the cabin floor. The door should then be pushed open.

(*e*) An indicator plate, over the door aft fastener, is slotted to accept a stop plate to the locking claw. When the door is closed and locked the stop plate must abut within $\frac{1}{16}$ in of the line on the indicator plate.

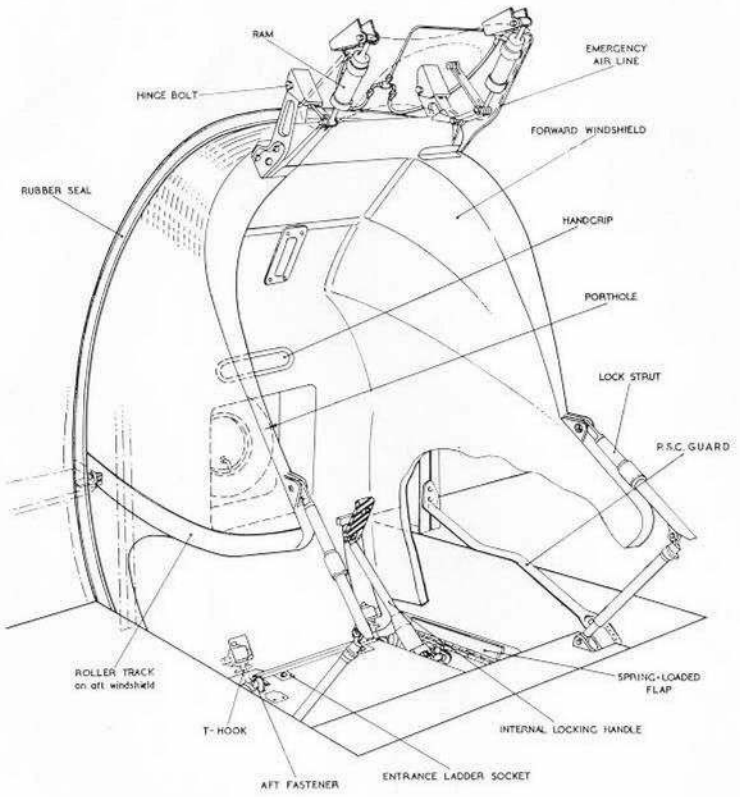

Fig. 1 Crew door

(*f*) *Mod.* 2013

To prevent the crew door lock freezing in flight, warm air from the air conditioning system is fed into each fastener channel through a nozzle and exhaust through lock mechanism into the cabin.

2 Door emergency opening system

WARNING : Above 40,000 ft. the door must not be opened until 6 seconds after the ABANDON AIRCRAFT notice is given. (Post-Mod. 3817 when the cabin differential pressure gauge indicates $1\frac{1}{2}$ PSI).

(*a*) The crew door can be opened in emergency by a PARACHUTE EXIT EMERGENCY RELEASE lever on the underside of the crew table. The level is covered by a spring flap.

(*b*) When the lever is moved fully to the left, air from an accumulator under the floor aft of the step is admitted to the latch jack and to the door rams, forcing the door open.

(*c*) The accumulator is charged via a valve in the aft face of the step, the air passing through a dehydration cell before entering the accumulator. A pressure gauge, which should read 2,500 PSI at 20°C, is included in the circuit and can be read through a window in the aft side of the step.

3 Pilots' escape hatches

(*a*) Each pilot has an escape hatch above his head. A ditching handle, by means of which each hatch may be jettisoned is situated on each pilot's console AE, AF. A hatch is also jettisoned when its associated ejection seat face blind is pulled. In either case a hatch is jettisoned by gas pressure from a cartridge operating on two ejection guns which force the front of the hatch upwards about two hinges at the rear end. These hinges disengage after the hatch has swung upwards.

(*b*) An external release is fitted outboard of each pilot's escape hatch. When the release lever is pulled fully up, the hatch is raised by the jettison gun springs. The hatch may then be pulled up and

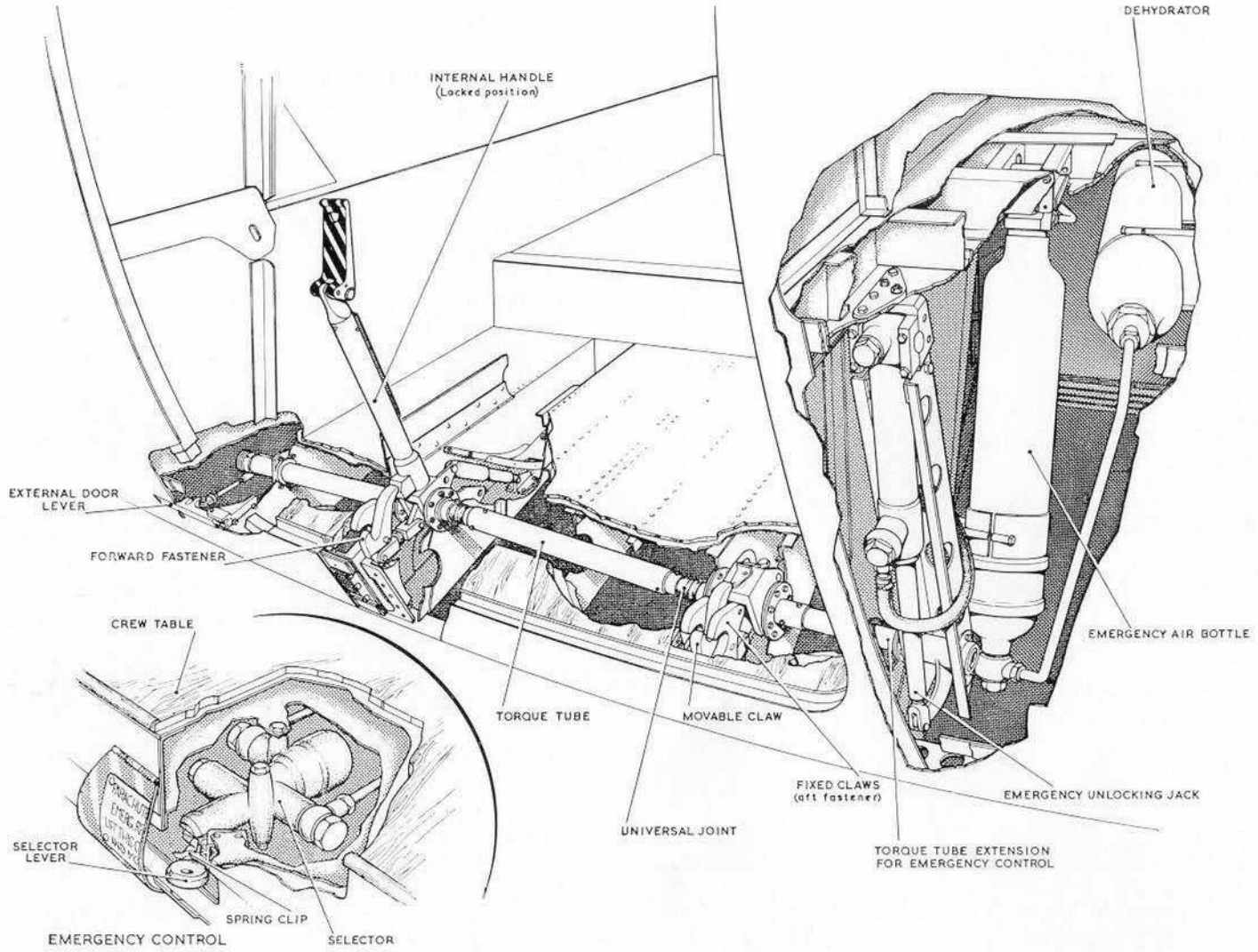

Fig. 2 Door fastening mechanism

outboard. When Mod. 2598 is embodied the release lever is rendered inoperative. On later aircraft embodying this modification the lever is not fitted.

(*c*) Mod. 656 introduces an unlocking lever, and stowage, to enable each pilot's escape hatch to be unlocked for servicing purposes. The chain clip must be detached and the lever pulled down before it can be rotated after the insertion of a tommy bar. (This system could also be used in emergency).

4 Escape hatch seals

(*a*) An inflatable seal is on the lower edge of each escape hatch and can be inflated to a pressure of 10 PSI by air stored in a bottle mounted on each escape hatch. Each bottle is charged to 1,800 PSI and feeds through a pressure reducing valve. The pressure in the bottles is shown by adjacent pressure gauges.

(*b*) Alternative and interchangeable systems may be fitted. One system is controlled by an ON/OFF lever (ON to inflate) and the other by a deflation plug which is removed to inflate the seal.

(*c*) In the latter sytem, if an air bottle fails in flight, screw the deflation plug into its valve thereby allowing cabin pressure to inflate the seal.

5 Crash axe and asbestos gloves

The axe is secured in a stowage forward of the first-aid kit at the side of calc. 3. A pair of asbestos gloves is stowed below the head of the axe.

6 First-aid kit

This is stowed at the side of calc. 3.

7 Signal pistol

A signal pistol and a cartridge stowage are located in the starboard side of the cabin roof. In the stowed (or forward) position the pistol may be loaded. A spring-loaded plunger, which holds it in this position, may be withdrawn by finger pressure enabling it to be swung vertically to the firing position where it is again retained in position by a similar plunger. It is not possible for the pistol to be accidentally fired in the stowed position.

8 Dinghy installation

(*a*) The dinghy is carried in a compartment aft of the cabin in the starboard upper surface of the fuselage and is covered by a positive lock hatch. The dinghy release handle, in the cabin, is pulled to release the hatch and to operate the CO_2 bottle which inflates the dinghy.

(*b*) Should the CO_2 bottle become overheated a safety device permits the escape of CO_2 to an indicator in the dinghy hatch. The gas blows out a sealing disc and perspex cover causing red streamers to trail from it.

(*c*) The dinghy hatch can be released from outside by pulling a handle beneath a " break-in " panel. Once the hatch is open, the dinghy inflation handle can be pulled to inflate the dinghy.

(*d*) A boat hook is positioned (post-Mod. 2910) on the cable duct below panel AJ and a nylon rope is below the starboard escape hatch, above the NBC crate.

9 Automatic hand line

(*a*) When Mod. 3326 is embodied a guide rope is installed. It is connected to a point above the rear of the 2nd pilot's seat and to the entrance door. Its purpose is to assist rear crew members to escape under adverse flight conditions.

(*b*) The rope, which is permanently attached to the roof, is fastened with a shackle to the closed crew door before take-off. If the door is opened the rope is automatically pulled taut. Clips are provided in the roof to stow the rope when not in use.

(*c*) BC Mod. 039 alters the attachment point from the crew door to a position forward of the lower edge of the door, on the aircraft structure. The position of the roof stowage is also altered.

WARNING : This facility must not be used when a 6th crew member is carried as he may sustain injury or have his escape restricted when the entrance door opens.

10 " Crew gone " warning lights

(*a*) Mod. 3955, Part C (see also Chapter 10, para. 11(*g*)) introduces a " crew gone " warning system to provide indication to the pilot, by four blue warning lights on panel AZ, of each rear crew member's emergency evacuation of the aircraft. The lights have a press-to-test facility.

(*b*) As each crew member leaves the aircraft, provided that his static line is correctly attached, a switch built in to the static line operates to switch on the appropriate warning light.