

CHAPTER 1

PYROTECHNICS

RESTRICTED

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Introduction

1. This chapter gives a general description of the pyrotechnics and associated equipment in the aircraft.

Signal pistol

2. A Mk. 2 pressure cabin signal pistol, installed in an airtight mounting in the port side of the cabin roof aft of the pilots' canopy, is held in position by bayonet fittings and locked by a small catch enabling it to be readily removed for use as a hand pistol. The construction of the pistol enables it to be loaded, fired and unloaded without loss of cabin pressure. It is locked in both the loaded and unloaded positions. A wood bung is provided to seal the aperture when the pistol is removed.

Loading

3. The pistol is normally carried in the aircraft in the unloaded condition. To load proceed as follows:—

- (1) Insert a cartridge into the breech.
- (2) Close the breech by rotating the handgrip, ensuring that it is locked by the catch.

(3) Depress the thumb piece on the right-hand side of the pistol, and rotate the breech portion until it is locked in position.

The pistol is then ready for firing.

Unloading

4. The pistol cannot be unloaded in the firing position. To unload, depress the thumb piece, rotate the breech piece upwards until it is locked in position, depress the catch and open the breech by rotating the handgrip. Remove the cartridge.

Removal

5. To remove the pistol from its mounting in the pressure cabin roof, depress the locking catch and rotate the pistol in a counter-clockwise direction through 45 deg. To refit pass the pistol barrel upwards through the roof aperture, align the bayonet fittings and rotate the pistol clockwise until locked in position by the catch.

Signal cartridge stowage

6. Three stowage racks, each capable of holding five cartridges, are mounted one

above the other on the port side of the pressure cabin, opposite the sextant dome (*Sect. 1, Chap. 3, fig. 2*).

Explosive bolts

7. The pilots' canopy, the main undercarriage up-locks and the main undercarriage outer door actuators are attached to the aircraft structure by bolts, each of which houses a detonator. The bolts and detonators are fully described in A.P.1661F, Vol. 1.

8. The canopy is secured to the hooding by twenty-six bolts; each main undercarriage up-lock is secured by four bolts, the lower attachment bracket of each main undercarriage outer door actuator being attached to the door by six bolts.

9. Before attempting to remove the bolts, ensure that the aircraft battery switches are OFF and the external power supply is disconnected. When removing canopy bolts the 24-volt emergency batteries must also be disconnected. Then disconnect the electrical leads to the bolts; when disconnected the two wires from each bolt should be shorted to-

gether as a safety precaution before removing the bolt. (For removing and refitting the bolts see Sect. 3.)

Note . . .

Great care must be exercised when removing or replacing the bolts, and the detonators must be held by their connecting wires.

Aircraft destructors

10. Two Type H.E. Mk. 1 or 2, No. 1 aircraft destructors (*A.P.1661G, Vol. 1, Sect. 4*) are mounted in a stowage on the pressure cabin top skin, under the fairing at the rear of the sextant dome. They are each held in

the stowage by two straps secured by 2 B.A. bolts and stiffnuts. Access to the destructors is gained by removing the sextant dome.

Application of destructors

11. The destructors should be placed on the fuselage skin in the vicinity of the fuel tanks, the recommended positions being as follows:—

- (1) Fore and aft of No. 1 bomb loading point.
- (2) Forward of No. 2 bomb loading point.

- (3) In line with No. 4 bomb loading point.

The position selected is determined by the amount of fuel remaining in the tanks.

Photo-flashes

12. On P.R. aircraft, twenty-eight 8 in. photo-flashes may be carried in a crate in the bomb bay. The crate is loaded into the aircraft at No. 7 loading point and the method of loading is described in Sect. 2, Chap. 5, App. 2. (For details of crate refer to A.P.1664A, 2nd Edn., Book 1, Sect. 2).

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