

Chapter 4 BOMBING EQUIPMENT

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WARNING

Personnel handling explosive release and ejector units, as fitted to the inboard and outboard pylons on this aircraft, should be conversant with the safety precautions detailed in A.P.1664E, Vol.1, Part 1, Chap.1. During loading and unloading, radio installations are not to be operated.

Introduction

1. The following alternative bombing equipment may be carried on each inboard and outboard pylon:-

- (1) One fire bomb.
- (2) One practice bomb carrier which will carry two 25 lb or 28 lb practice bombs.

In normal bomb installation the bombs can be released either in pairs or simultaneously depending on pylon selection, but the practice bomb carriers are provided with their own release mechanisms and auto selectors which permit the bombs to be released either individually or in pairs depending on pylon selection. A description of the electrical installation and the operation of the release and fusing mechanisms is contained in Sect.5, Chap. 1. Bomb installations generally are described in A.P.1664C, Vol.1.

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DESCRIPTION

Controls

2. Before releasing the bombs the pylon selector switches must be set according to the pylon(s) to be used, the BOMB MASTER switch selected to ON and the fusing selector switch set to TAIL or NOSE & TAIL; these switches are located on the top port instrument panel. The bombs are released by depressing the BOMB/R.P. push switch on the top of the control column handgrip. A switch marked NORMAL/PRACTICE, which is located inside each pylon and is accessible through a hinged access panel on the pylon, is used to select the electrical supply to either the normal release unit or the practice bomb carrier via a sleeved connector on the starboard side of the inboard pylon and a unsleeved connector on the port side of the outboard pylon. When practice bombs are carried, this switch must be placed in the PRACTICE position. For all other installations, it must be left in the NORMAL position. The practice bombs are released unfuzed, but fusing selection must be made, or the release mechanism will fail to operate.

3. When necessary, the stores on the inboard or outboard pylons may be jettisoned by using the appropriate jettison switch on the top port instrument panel. A switch flap above these

switches, when pulled down, operates the two switches together, thus making provision for the simultaneous jettisoning of stores from both inboard and outboard pylons. The fusing switch, also located on the top port instrument panel, must be set to OFF to de-fuze before the bombs can be jettisoned. When the JETTISON switch is used, the practice bombs, if fitted, are jettisoned complete with their carriers.

Pylons

4. The pylons are described in Sect.3, Chap.2 and illustrated in Sect.2, Chap.2. They are bolted to the wings and are, therefore, not capable of being jettisoned. The pylons can however, be removed and the holes in the wing which are left exposed when removal is effected are sealed with the cover plates provided.

5. The inboard and outboard pylons carry an ejector release unit by which the fire bomb or the practice carrier is attached to the pylon. These units are provided with a crutch by which the store is finally tipped against the sole plate of the pylon during release. The units are electrically operated and the store, in an emergency, during details of the release unit and reference should be made to A.P.1664C, Vol.1.

SERVICING

Arment safety break

An armament safety break is located on the starboard glare shield in the cabin. It consists of a plug assembly which, with the armaments 'live', is connected to the socket of cable A.101, thus completing the electrical circuit; in this position the engraving ARMENT SAFETY BREAK on the plug cap is seen, with an arrow pointing upward. To place the armament circuits in a safe state for servicing or re-arming, the plug assembly is removed from its socket, thus breaking the electrical circuit, and placed in a stowage adjacent to the socket; in this position the engraving SAFE is seen on the plug cap. To prevent the plug from being dropped whilst changing its position, it is attached by a short length of cable, to the stowage bracket.

Loading on inboard pylons

7. The procedure for loading a store on to an inboard pylon is similar to that for fitting a drop tank (*Sect. 2, Chap. 2*), the following points, however, should be noted:—

(1) (a) If the pylons are fitted with E.R.U. not embodying ML Mod.DL94 the adapter (*Sect. 2, Chap. 2, fig. 4, item 17*) must be in position in the bottom of the housing.

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(b) When loading a store on E.R.U. post ML Mod.DL94 a check must be made with 1/8 in. dia. rod through the inspection hole in the housing to ensure that the piston is fully home and the split pin undamaged.

(2) The appropriate fuzing connections must be made.

(3) The final crutching load is:—
Fire bomb 95 ± 2 lb. ft.
Practice carrier 30 ± 2 lb. ft.

(4) The PRACTICE/NORMAL switch in the pylon must be in the NORMAL (inboard) position except when the practice carrier is fitted when it must be in the PRACTICE (outboard) position.

(b) When loading a store on E.R.U. post ML Mod.DL94 a check must be made with 1/8 in. dia. rod through the inspection hole in the housing to ensure that the piston is fully home and the split pin undamaged.

(2) The appropriate fuzing connections must be made.

(3) The final crutching load is:—
Fire bomb 95 ± 2 lb. ft.
Practice carrier 30 ± 2 lb. ft.

(4) The PRACTICE/NORMAL switch in the pylon must be in the NORMAL (up) position except when the practice carrier is fitted when it must be in the PRACTICE (down) position.

Loading on outboard pylons

8. The procedure for loading a store on to an outboard pylon is similar to that for fitting a drop tank (*Sect. 2, Chap. 2*), the following points, however, should be noted:—

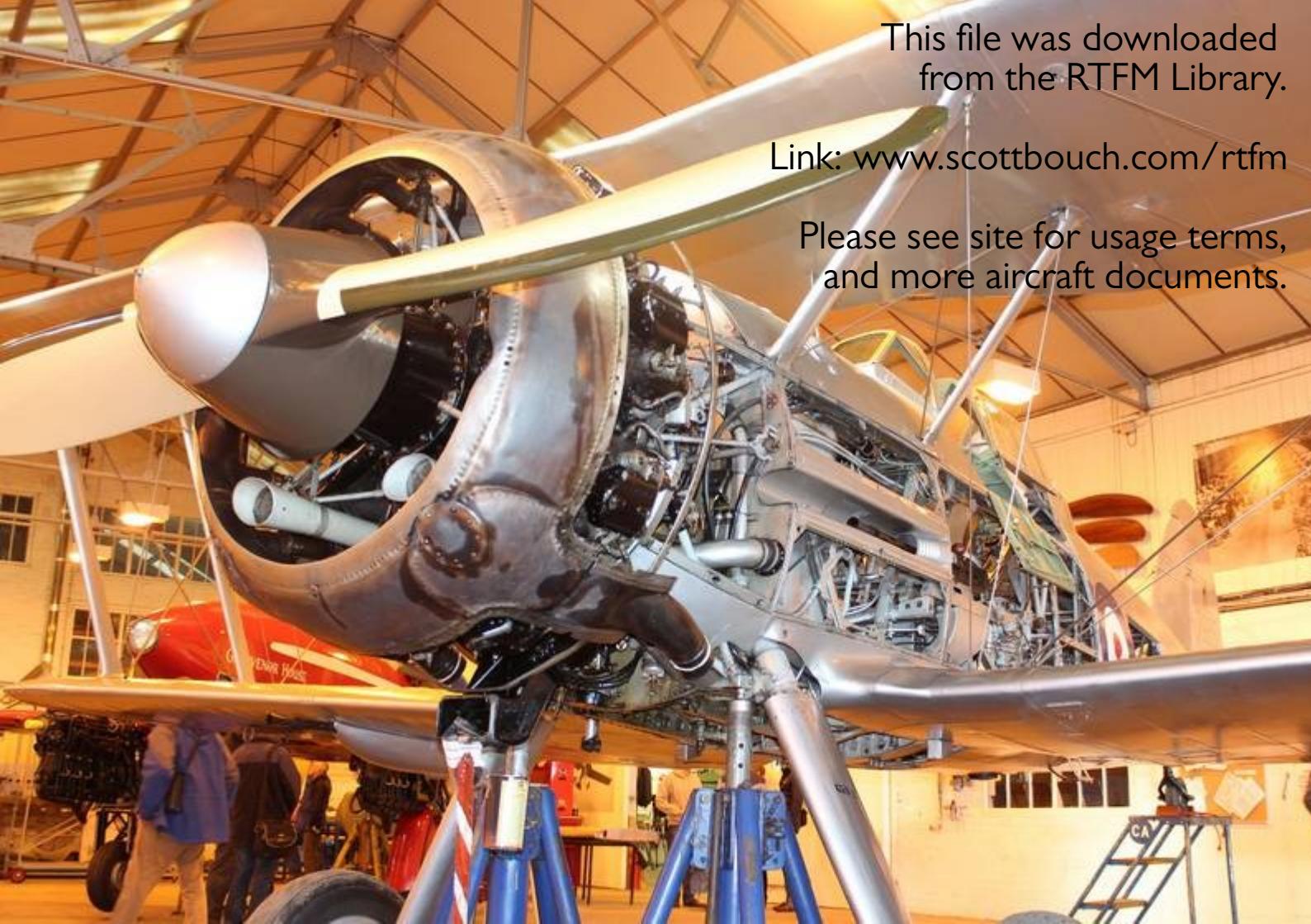
(1) (a) If the pylons are fitted with E.R.U. not embodying ML Mod.DL94 the adapter (*Sect. 2, Chap. 2, fig. 4, item 17*) must be in position in the bottom of the housing.

Loading the practice carriers

9. The carriers should be loaded with bombs in accordance with A.P.1664A, Vol.1, Book 1.

Testing and arming ejector release units

10. The procedure for testing and arming the ejector release units is described in Vol.1, Sect. 5, Chap.1, Group G.1.

A large propeller aircraft, likely a Douglas C-47 Skytrain, is displayed in a museum hangar. The aircraft is positioned on a blue hydraulic lift, with its front landing gear extended. The engine and propeller are visible on the left side. The interior of the aircraft is partially open, showing the cockpit and the engine compartment. The aircraft is surrounded by museum exhibits, including a red and white airplane in the background and various informational displays. The hangar has a high ceiling with exposed structural beams and lighting fixtures.

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