

## Chapter 2

*Completely revised*

### DROGUE GUN, TYPE 2

(Standard model, Ref. No. 27L/504)  
(Vampire/Venom model, Ref. No. 27L/536)

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#### Disarming the drogue gun

1. (1) Fit the safety lock pin (complete with warning disc) into the safety lock of the drogue gun (*fig. 1*).
- (2) Remove the static rod quick-release pin.
- (3) Disconnect the drogue shackle from the piston by withdrawing the quick-release pin.
- (4) Undo the top quick-release clamp (*fig. 2*).
- (5) Break the sealed locking wire and, using a  $\frac{7}{16}$  in. B.S.W. spanner, unscrew the barrel from the time-delay mechanism body.

#### Note . . .

*For the purpose of disarming the drogue gun, the time-delay mechanism body is not to be removed from the seat structure.*

- (6) Remove the cartridge.
- (7) Place the cartridge in a suitably fitted container marked with the aircraft serial number and cartridge expiry date.
- (8) Attach a 'Free from explosives' notice to the drogue gun body.
- (9) Seal the barrel housing with masking tape to exclude dirt and moisture.
- (10) Label the barrel with the aircraft serial number and transport to the bay for storage until required.

#### Removing the drogue gun body from the seat

2. After the seat has been removed from the aircraft, undo the bottom quick-release clamp and lift out the drogue gun body.

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Fig. 1. Drogue gun safety lock pin

(A.L.70, Jan. 59)

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### Servicing the drogue gun

#### To examine the firing mechanism

3. (1) Withdraw the quick-release pin from the safety lock, pull out the sear and check the mechanism for correct functioning. Check the timing by stop watch; it should be  $\frac{1}{2}$  sec.  $\pm \frac{1}{10}$  sec.
- (2) Test the firing spring with the mechanism in the fired position by applying a spring balance to the handle of the cocking tool; it should not move at less than 9 lb.
- (3) Test the firing pin protrusion; it should not be less than  $\frac{3}{32}$  in.
- (4) If the firing mechanism fails any of the tests given in sub-para. (1) to (3), it should be renewed.

#### To re-set the time-delay mechanism

4. (1) Insert the sear and depress the plunger until it locks in position.
- (2) Remove the stud at the bottom of the casing (fig. 3).
- (3) Insert the cocking tool into the stud hole, screw to the right and then pull downwards until the gear train stops revolving.
- (4) Replace the stud and insert the quick-release pin in the safety lock.

#### Fitting the firing body

5. Engage the firing unit body with the lower concave section of the clamp, lower the upper section over the body, swing the swivel bolt into the slot in the upper section and tighten the knurled nut.

#### Arming the drogue gun

6. (1) Obtain the drogue gun barrel from the bay.
- (2) Ensure that the safety pin (complete with warning disc) is fitted in the sear.
- (3) Remove the cartridge from the container and insert it into the barrel.
- (4) Ensure that the firing pin is not protruding and that the sear is correctly engaged.

- (5) Screw the barrel firmly into the firing unit body, using a  $\frac{7}{16}$  in. B.S.W. spanner.

#### IMPORTANT

Ensure that the top edge of the gun body is level with or above the scribed line on the barrel. If the scribed line has been obliterated, proceed as follows:—

- (a) Measure the distance internally between the cartridge seating and the upper edge of the gun body.
- (b) Subtract from this distance the thickness of a cartridge rim, and then measure the remaining distance from the lower edge of the gun barrel. Scribe a line on the exterior of the barrel at this distance; extend the line all round the circumference of the barrel.

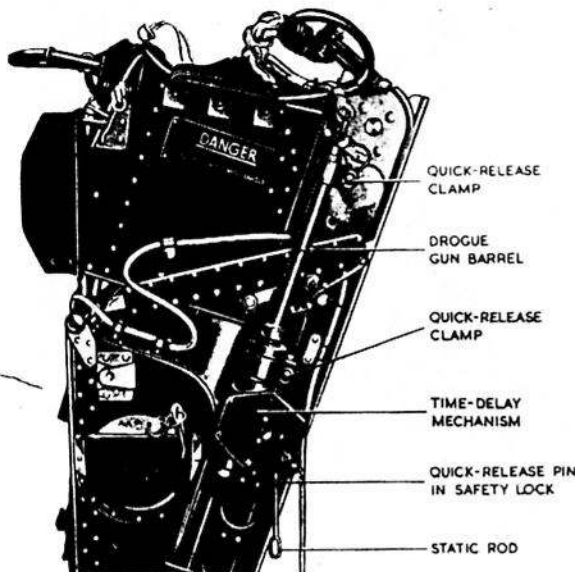
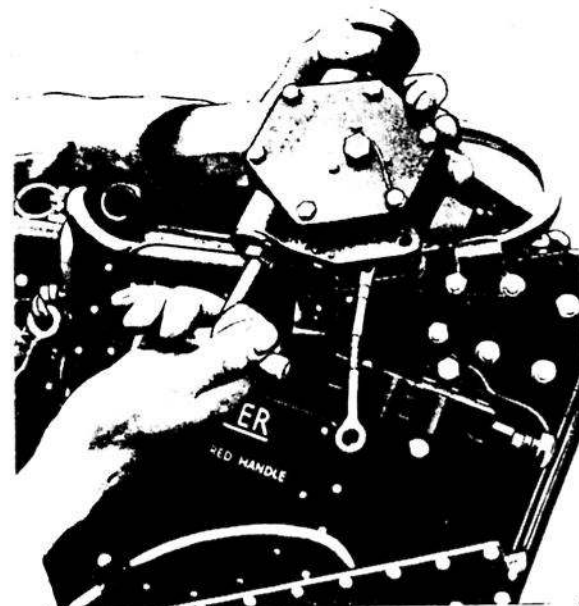


Fig. 2. Drogue gun assembly

Fig. 3. Re-setting drogue gun time-delay mechanism

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- (c) *Fit the drogue cartridge and screw down the barrel. If the top edge of the gun body is not level with or above the scribed line after tightening fully, dismantle the gun, re-check the measurements and, if necessary, scribe a new line.*
- (d) *Make an entry in the Aircraft Servicing Form 700.*
- (6) Fasten the top quick-release clamp.
- (7) Lock with 20 S.W.G. nickel chromium wire (Ref. No. 30A/2296) and seal with a lead seal, using the sealing press.

- (8) Connect the drogue withdrawal line to the piston by inserting the quick-release pin.

**WARNING**

*The drogue withdrawal line MUST pass over both the nylon rope and the black P.V.C. covered lifting line so that it is free to extract the drogues without any entanglement.*

- (9) Remove the 'Free from explosives' notice.
- (10) When all servicing is completed, remove the safety pin and warning disc.

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