Chapter 10 OXYGEN SYSTEM

(Completely revised)

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LIST OF ILLUSTRATIONS

DESCRIPTION

General

1. The oxygen installation is a high-pressure system and provides a supply for the 1st and 2nd pilots; details of the functioning of the various components in the system are contained in A.P.1275G, which should be read in conjunction with the information given in this chapter. The system is illustrated diagrammatically in fig. 1, while fig. 2 shows the installation of the equipment and the pipe runs in the aircraft.

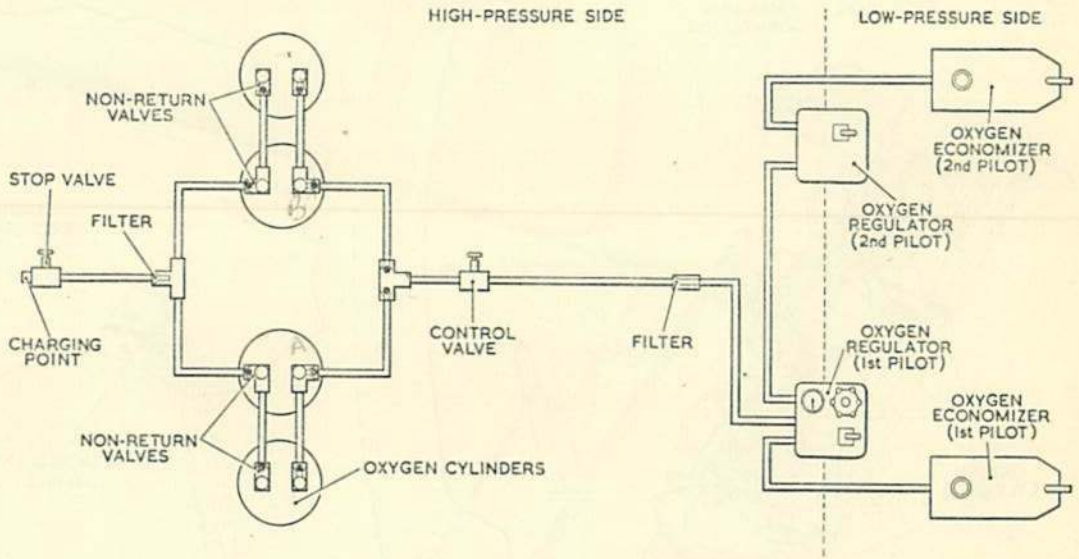

Fig. 1. *Diagram of oxygen system*

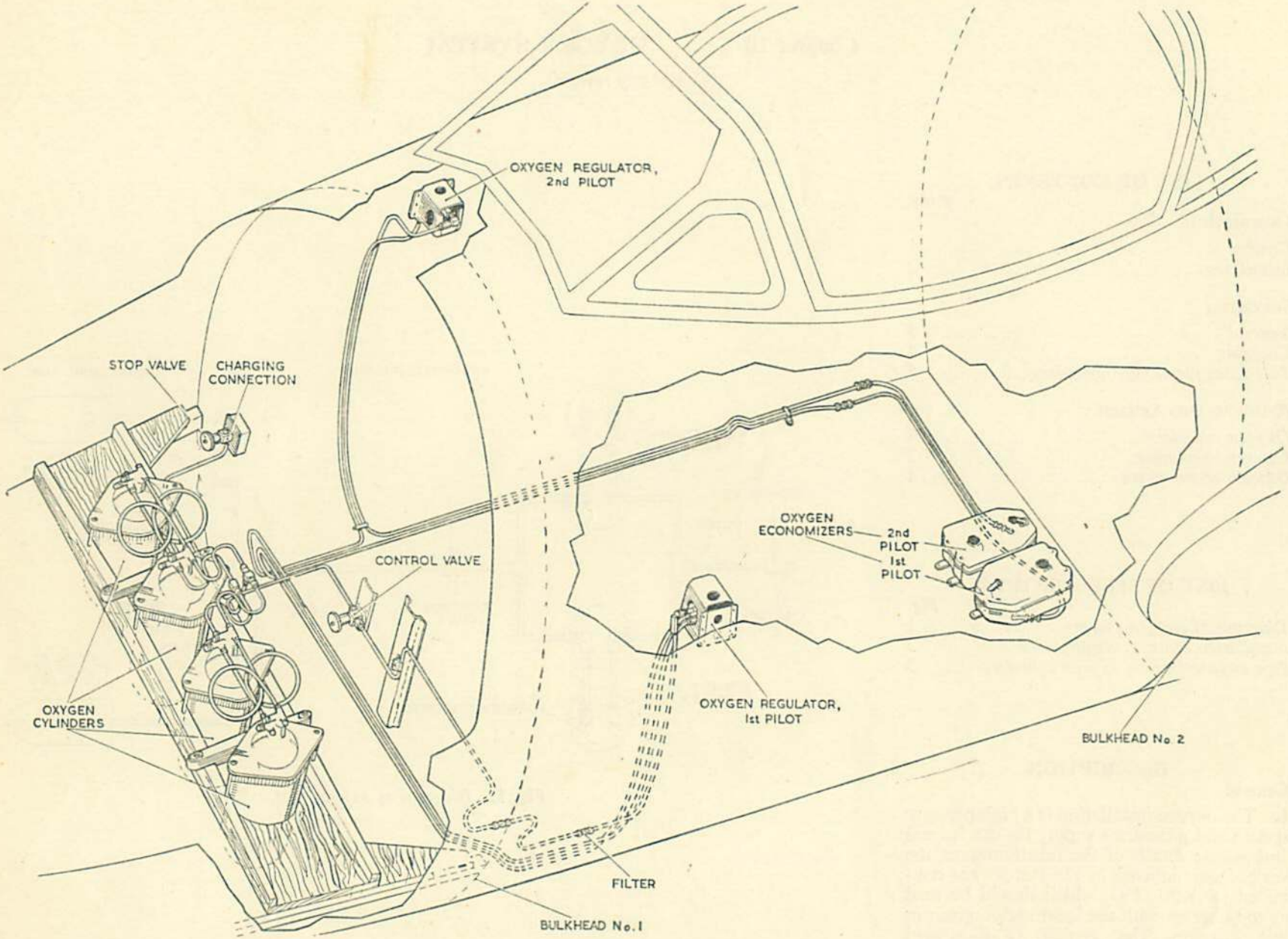

Fig. 2 *Installation of oxygen equipment*

Installation

2. The four oxygen cylinders are positioned forward of No. 1 bulkhead and a control valve and charging connection are mounted on the forward face of this bulkhead. The 1st pilot's regulator is mounted on the left-hand side of the cabin and the 2nd pilot's regulator on the right-hand side. The economisers are bolted side by side on the cabin floor aft of the 1st pilot's seat.

SERVICING

General

3. The various components in the system must be inspected at the periods stated in Vol. 5; details of the permitted servicing for each component are given in A.P.1275G.

Charging

4. The four interconnected oxygen cylinders may be charged *in situ* from an external supply. The charging connection, which is integral with a stop valve, is mounted on the forward face of No. 1 bulkhead and is accessible when the nose cap is opened. The cylinders should be charged to a pressure of 1,800 p.s.i.

Test dates for oxygen cylinders

5. The dates on which the four oxygen cylinders were last removed for testing are stencilled on the upper ends of the cylinders. These may be inspected when the nose cap is opened.

REMOVAL AND ASSEMBLY

Oxygen cylinders

6. When any cylinder has to be removed, the pressure must first be released and the oxygen allowed to escape *slowly* until the contents gauge on the 1st pilot's regulator registers *zero;* it should be noted that the control valve on this regulator must be turned ON to obtain a reading on the gauge. If one or both of the port cylinders have to be removed, union nut 'A' (*fig.* 3) should be slackened to release the pressure and, similarly, union nut ' B ' should be loosened before removing either one or both of the

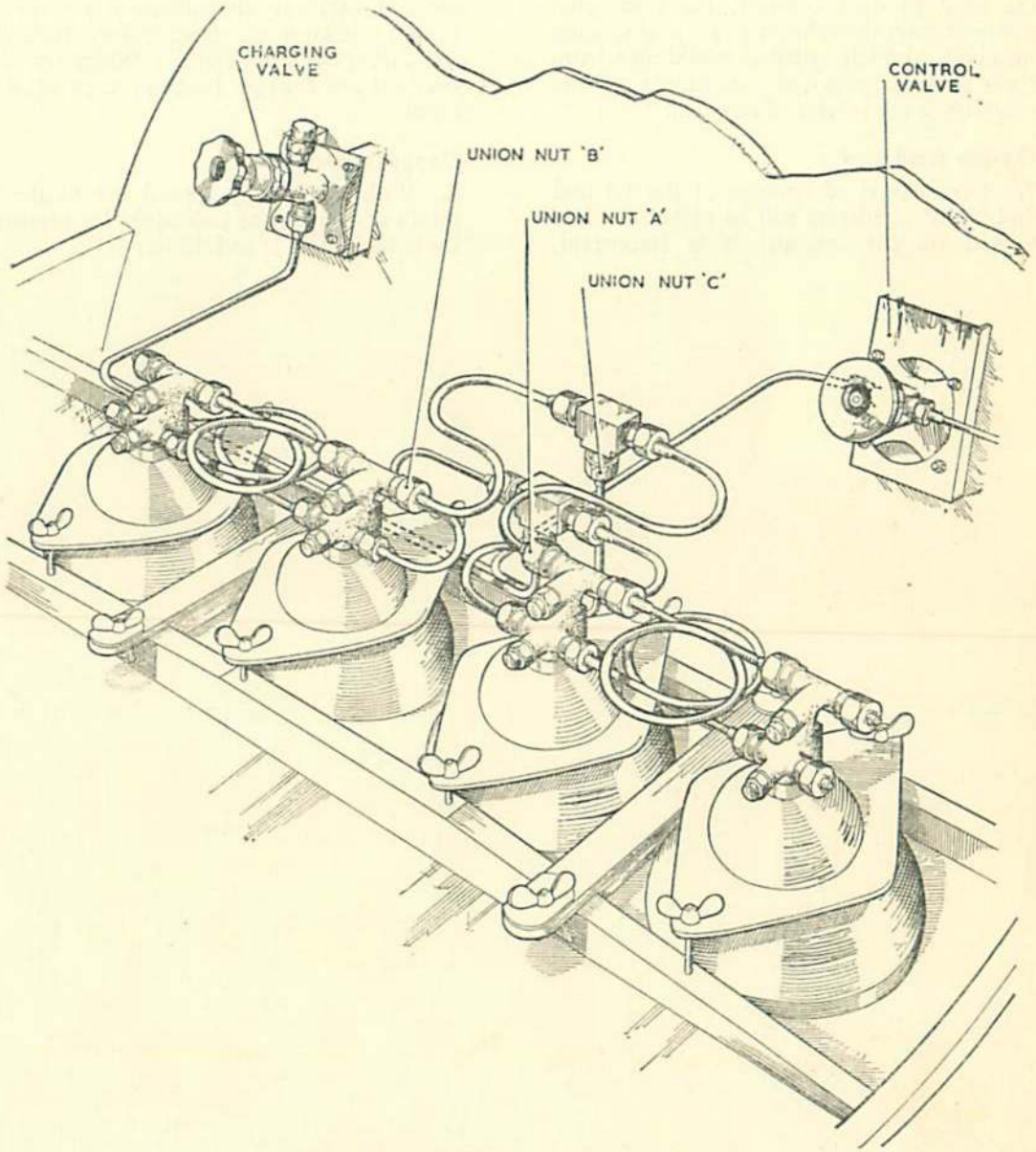

Fig. 3 *Pipe connections on oxygen cylinders*

starboard cylinders; if all four cylinders are to be removed, union nut 'C' should be loosened to exhaust the system. The pipe connections should then be disconnected from the head of each cylinder, the wing nuts removed from the cylinder yokes and spacing members, and the cylinders withdrawn from their stowage positions. Assembly of the cylinders is the reverse of removal.

Oxygen regulators

7. The method of removal of the 1st and 2nd pilots' regulators will be apparent when viewed on the aircraft; it is important, however, that the control valve forward of No. 1 bulkhead is *closed* before removing the 1st pilot's regulator and a label to this effect is adjacent to the valve. It must be ensured that the control valve on the 1st pilot's regulator is *closed* before removing the 2nd pilot's regulator. Whenever connections are broken, blanking caps must be fitted.

Oxygen economisers

8. With the supply turned OFF at the 1st pilot's regulator, the procedure for removing the economisers is as follows:—

(1) Remove the 1st pilot's seat (*Chap.* 1).

(2) Disconnect the flexible tubing from the economisers.

(3) Remove the three bolts securing each economiser.

9. Assembly of economisers is the reverse of removal.

(G.10172) Gp.375/1. D.6665/Wt.14747/L.P.S. Ltd. 625/7/58.