

Chapter 17

PRESSURE JERKIN, MK. 1

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Introduction

1. When breathing pure oxygen at pressure equivalents of over 40,000 ft. the partial pressure of the oxygen in the lungs is insufficient for the maintenance of adequate oxygen concentration in the blood stream and unconsciousness ensues. Counter-pressure on the outside of the body enable consciousness to be retained and ordinary functions to be performed. The pressure jerkin provides the required pressure over the whole of the trunk except a small portion of the buttocks and the small of the back.

Description

2. The Mk. 1 Pressure Jerkin (*fig. 1, 2 and 3*) is a trunk fitting, sleeveless garment which covers the trunk and upper thighs, fitted with a nylon lining which covers the whole of the inside of the garment except the seat. Between the jerkin and the lining is an inflatable bladder made of 2-ply rubberised silk secured in position by tabs located at the edges, the bottom of the lining and round the armholes. The jerkin is fitted with an inflatable stole similar to those incorporated in life jackets and inflated with CO₂ from a 34 gramme cylinder through an operating head. The stole is housed in a container which is integral with the outer jerkin.

3. The outer garment which restrains the inflatable bladder is made of terylene which is selected for its strength and resistance to stretching. The front is open from top to bottom and is fitted with a sliding fastener by which it is closed. Pockets are provided for the stowage of S.A.R.A.H. speech unit battery and beacon, McMurdo light and battery, whistle and lanyard, a heliograph and ground/air emergency code.

4. On each side and at the back of the neck, flaps are provided to retain the cable leading to the speech unit and a tunnel on the right-hand side enables the beacon clip to be retained in position. A button on the left-hand side of the stole container permits the McMurdo light to be secured in a position in which it can be easily seen by searchers.

5. At the front of the jerkin two lifting beackets are located, one on each side of the chest. The beackets are normally stowed between the lobes of the stole container and can be freed and clipped together to form a means by which the wearer can be lifted from the water. Attached to the left-hand beacket are a lifeline and toggle which can be attached to a suitable floating object so that it affords additional buoyancy and act as a larger, more easily seen marker than the wearer.

6. Just below the ribs on the right-hand side of the jerkin is a screwed, flanged connector to which the main aircraft oxygen supply is connected during flight. Lower on the same side is a tunnel through which the main oxygen supply tube is passed before being connected to the jerkin.

7. During flight at high altitudes oxygen from the main supply passes through a demand regulator into the bladder of the jerkin and is breathed through the oxygen tube and mask. The regulator is designed to give correct pressure breathing characteristics without any control by the user. The pressure in the jerkin counterbalances that in the lungs and prevents ill effects arising from differential pressures.

Sizes

8. The jerkin is issued in six sizes viz.

<i>Size</i>	<i>Ref.</i>
1	22C/1713
2	22C/1714
3	22C/1715
4	22C/1716
5	22C/1717
6	22C/1718

When selecting a jerkin all appropriate other clothing should be worn and every care taken to obtain the best possible fit.

9. The jerkin must be worn with an automatic pressure demand regulator, pressure helmet and anti-g suit. Operation of the jerkin is automatic and if it becomes damaged a valve on the jerkin connector T-piece can be operated by the wearer so that the oxygen supply to the jerkin can be cut off without affecting the supply to the helmet.

Servicing

10. Servicing is to be in accordance with the instructions of Vol. 4 at the intervals stated therein.

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Fig. 1. Pressure jerkin Mk. 1—front view



Fig. 3. Pressure jerkin, Mk. 1—rear view



Fig. 2. Pressure jerkin, Mk. 1—with sole covers opened to show detail

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