

**Mk 28 LIFEJACKET
MANUAL 25-60-47
ISSUE 2**

'Statement of Initial Certification'

This manual complies with British Civil Aviation Airworthiness Requirements, Section A, Chapter A5-3. The technical content of the manual has been verified and certified correct.

APPROVED 

TECHNICAL DIRECTOR

DATE24/06/98.....

CAA Design Approval No.DAI/3257/51

NOTE: The above certification does not apply to revisions made after the date of initial certification by any other approved Design Organisation. Revisions made by other approved Design Organisation must each be separately certified, and recorded on separate record sheets.

Beaufort Air-Sea Equipment Limited
Beaufort Road, Birkenhead
Merseyside, CH41 1HQ

Telephone: 0151-652-9151
Facsimile: 0151-653-6639

This manual is the copyright of Beaufort Air-Sea Equipment Limited. It is supplied in confidence and must not be used for any other purpose other than that for which it is supplied. It must not be reproduced without permission from the owners.

PERMANENT REVISION SHEET

The introduction of any amendment or revision not certificated in accordance with British Civil Airworthiness Requirements Section A, Chapter A5-3, will invalidate the statement of certification on Page I. Amendments or revisions embodied in this manual, which have been certified under an approved authorisation other than that applicable to the initial certification must be recorded on separate record sheets.

Rev. No.	Insertion Date	By	Rev. No.	Insertion Date	By
3	December '94	SO			
4	November '96	PP			
5	May '98	MD			
6	January '00	NM			
7	May '02	NM			
8	February '05	KS			

TEMPORARY REVISION LIST

The introduction of data by revisions or amendments, or temporary revisions or amendments, not certificated in accordance with British Civil Airworthiness Requirements, Chapter A5-3, will invalidate the initial certification on the title page of the manual relative to the part revised. Revisions or amendments, or temporary revisions or amendments embodied in this manual and certified by an appropriately Approved Organisation, other than that applicable to the initial certification, must be recorded on separate record sheets.

Rev. No.	Insertion Date	By	Rev.No.	Insertion Date	By

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

SERVICE BULLETIN LIST

Service Bulletin No.	Unit Part No.	Modification No.	Mod. State or New Part No.	Incorporated in Manual	
				Rev.	Date

TABLE OF CONTENTS

	<u>CHAPTER</u>
INTRODUCTION	1
DESCRIPTION	2
MAINTENANCE SCHEDULE	3
DISASSEMBLY	4
CLEANING	5
INSPECTION	6
TEST PROCEDURE... ..	7
REPAIRS	8
ASSEMBLY	9
STORAGE	10
SPARE PARTS LIST	11

APPENDICES

	APPENDIX
ADHESIVE SOLUTION BASE 5001	1
RETROFIT OF Mk 28A LIFEJACKET	2
ATTACHMENT AND PACKING OF THE CROTCH STRAP	3
ATTACHMENT AND POSITION OF STROBE LIGHT PATCH	4
INFLATABLE LIFEJACKET Mk 28 WB (PASSENGER)	5
ATTACHMENT AND POSITION OF LIFELINE AND POCKET	6
ATTACHMENT OF GRAB HANDLE	7

LIST OF ILLUSTRATIONS

	<u>FIGURE</u>
Mk 28 LIFEJACKET (SERIES 1) WITH BALACLAVA HOOD	1
Mk 28 LIFEJACKET (SERIES 2) WITH SPRAY SHIELD	2
Mk 28 LIFEJACKET (SERIES 3) WITH BALACLAVA HOOD	3
Mk 28 LIFEJACKET (SERIES 4)	4
SPRAY SHIELD (USED ON SERIES 4, STITCHED ON)	5
INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)	6
INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)	7
INFLATABLE STOLE (SERIES 4)	8
SPRAY SHIELD (DEPLOYED)	9
INFLATION MECHANISM... ..	10
SEASAFE SEALUX BATTERY AND LAMP ASSEMBLY	11
McMURDO LJ1 BATTER AND LAMP ASSEMBLY	12
INFLATION MECHANISM COVER	13
MANUAL INFLATION MECHANISM	14
ORAL INFLATION TUBE DUST CAP	15
PATCHING PROCEDURE	16
RE-ATTACHMENT OF LANYARD TO INFLATION MECHANISM	17
ATTACHING McMURDO LJ1 BATTERY AND LAMP ASSEMBLY	18
FOLDING RIGHT STOLE LOBE	19

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

LIST OF ILLUSTRATIONS (cont)

	<u>FIGURE</u>
ATTACHMENT OF ANCHOR BECKETS	20
FOLDING LEFT STOLE LOBE	21
ATTACHMENT OF SPRAY SHIELD	22-26
Mk 28 LIFEJACKET	27
INFLATABLE STOLE	28
INFLATION MECHANISM... ..	29

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

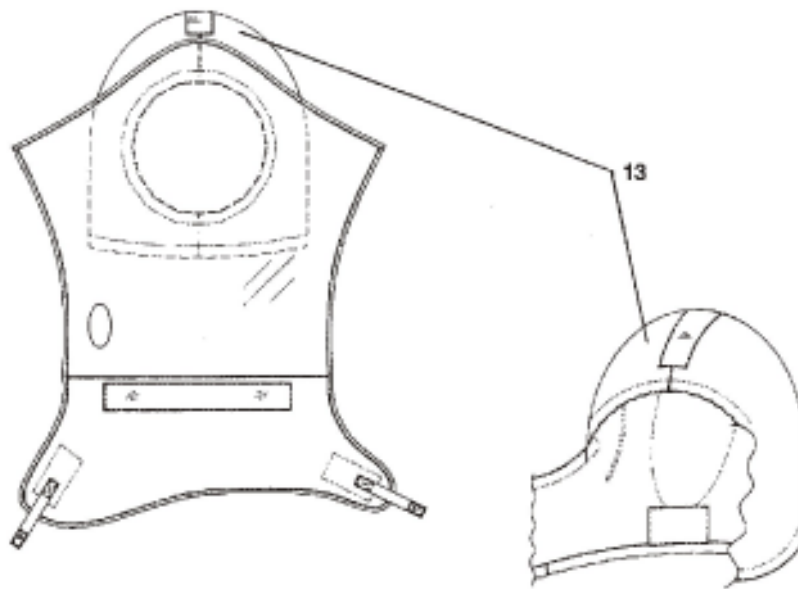
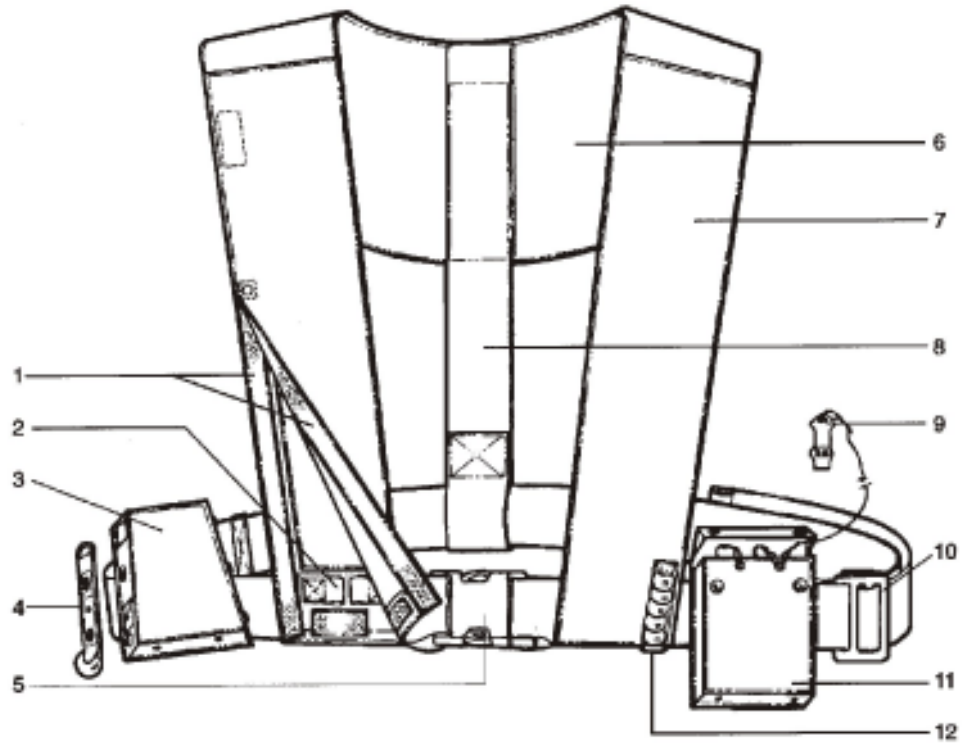
INTRODUCTION

- 1.1 This Maintenance Manual is issued for use by Beaufort Air-Sea Equipment certified personnel.
- 1.2 Details of disassembly, cleaning, testing, repair, assembly, storage and spare parts are included in this maintenance manual.
- 1.3 The procedure given in this maintenance manual shall only be carried out on premises approved by Beaufort Air Sea Equipment Limited and the United Kingdom Civil Aviation Authority.
- 1.4 Complete details of maintenance procedures shall be recorded by maintenance personnel and retained.
- 1.5 The procedures given in this Maintenance Manual shall be adhered to by maintenance personnel.
- 1.6 All references to left, right, upper, lower, back and front are relative to the wearer.
- 1.7 Due to similarities between all Series of the Mk 28 Lifejacket, this manual is presented in the singular unless otherwise stated.

1.8 Abbreviations

Cm Wg	Centimetres water gauge
CO 2	Carbon Dioxide
lb/in.f	Pounds per inch force
Kg	Kilogrammes
min	minimum
PLB	Personal Locator Beacon

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



Mk 28 LIFEJACKET (SERIES 1) WITH BALACLAVA HOOD
FIG 1

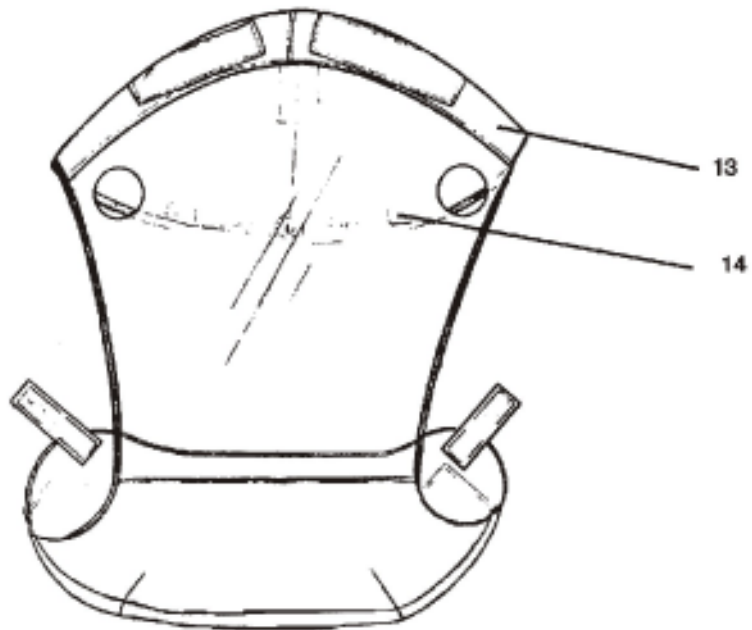
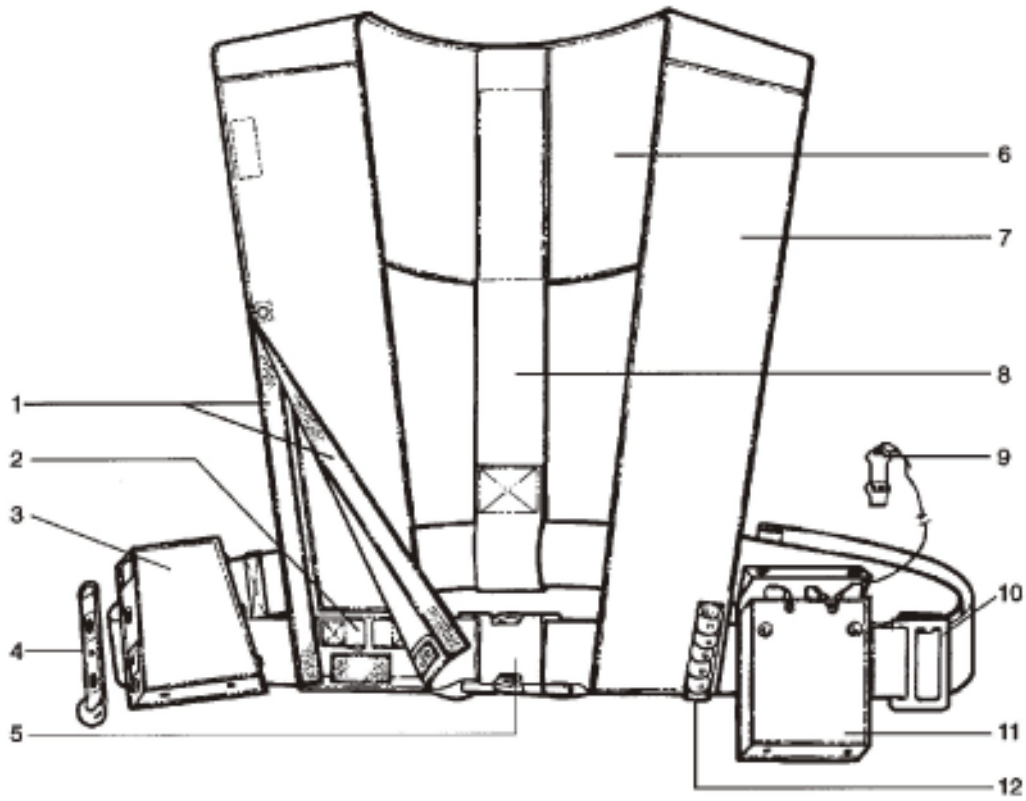
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

Mk 28 LIFEJACKET (SERIES 1) WITH BALACLAVA HOOD
FIG 1

LEGEND

- 1 TOUCH-AND-CLOSE FASTENER
- 2 INFLATABLE STOLE ANCHOR BECKETS
- 3 PLB POCKET
- 4 PLB ACTIVATING HANDLE
- 5 WAISTBELT QUICK RELEASE FITTING
- 6 PILLOW SECTION OF POUCH (AS WORN)
- 7 POUCH FLAP IN CLOSED CONDITION
- 8 VERTICAL RESTRAINING STRAP
- 9 WHISTLE
- 10 WAISTBELT ADJUSTABLE BUCKLE
- 11 MINI-FLARE POCKET
- 12 LIFEJACKET OPERATING HANDLE
- 13 BALACLAVA HOOD

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



Mk 28 LIFEJACKET (SERIES 2) WITH SPRAY SHIELD
FIG 2

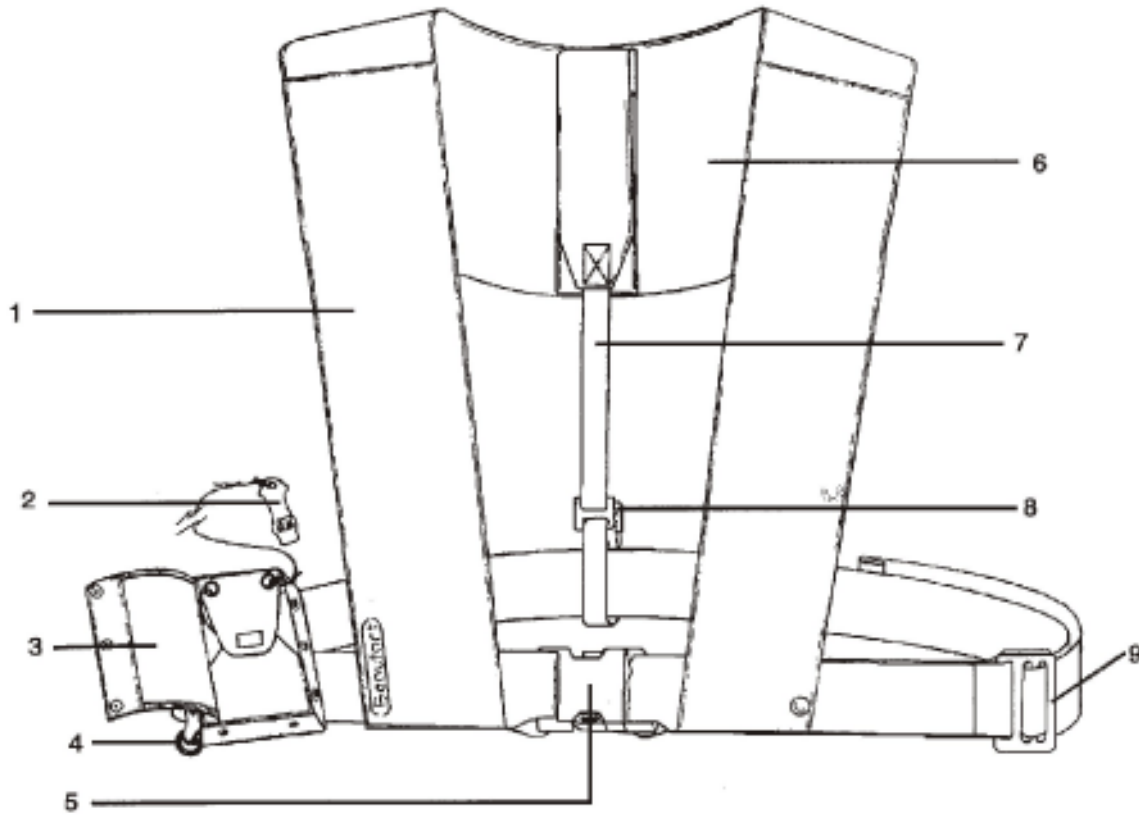
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

Mk 28 LIFEJACKET (SERIES 2) WITH SPRAY SHIELD
FIG 2

LEGEND

- 1 TOUCH-AND-CLOSE FASTENER
- 2 INFLATABLE STOLE ANCHOR BECKETS
- 3 PLB POCKET
- 4 PLB ACTIVATING HANDLE
- 5 WAISTBELT QUICK RELEASE FITTING
- 6 PILLOW SECTION OF POUCH (AS WORN)
- 7 POUCH FLAP IN CLOSED CONDITION
- 8 VERTICAL RESTRAINING STRAP
- 9 WHISTLE
- 10 WAISTBELT ADJUSTABLE BUCKLE
- 11 MINI-FLARE POCKET
- 12 LIFEJACKET OPERATING HANDLE
- 13 SPRAY SHIELD
- 14 PRESS FASTENER

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



Mk 28 LIFEJACKET (SERIES 3) WITH BALACLAVA HOOD
FIG 3

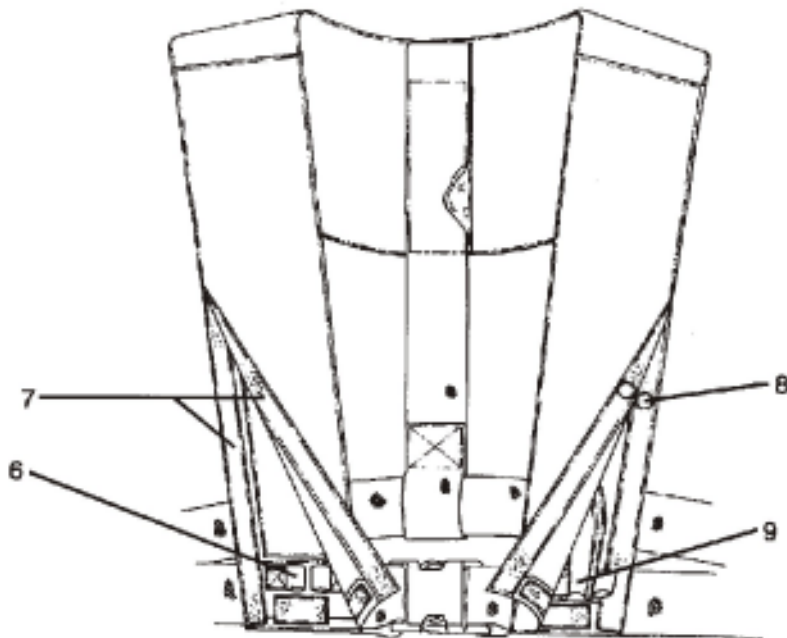
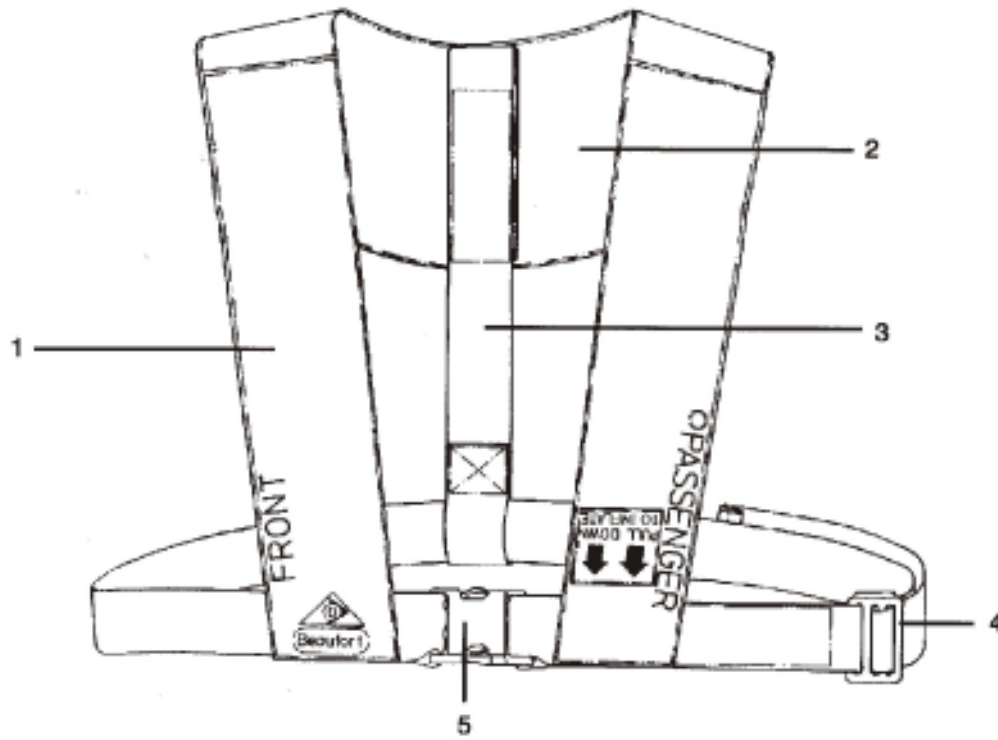
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

Mk 28 LIFEJACKET (SERIES 3) WITH BALACLAVA HOOD
FIG 3

LEGEND

- 1 POUCH FLAP IN CLOSED POSITION
- 2 WHISTLE
- 3 PLB POCKET
- 4 PLB ACTIVATING HANDLE
- 5 WAISTBELT QUICK RELEASE FITTING
- 6 PILLOW SECTION OF POUCH (AS WORN)
- 7 VERTICAL RESTRAINING STRAP
- 8 BACK ADJUSTABLE BUCKLE
- 9 WAISTBELT ADJUSTABLE BUCKLE
- 10 BALACLAVA HOOD

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



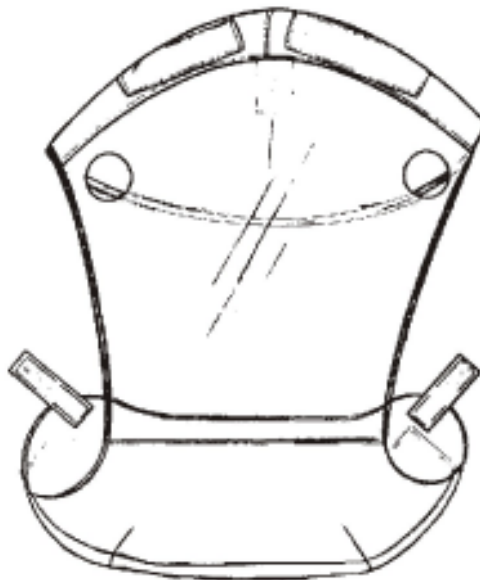
Mk 28 LIFEJACKET (SERIES 4)
FIG 4

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

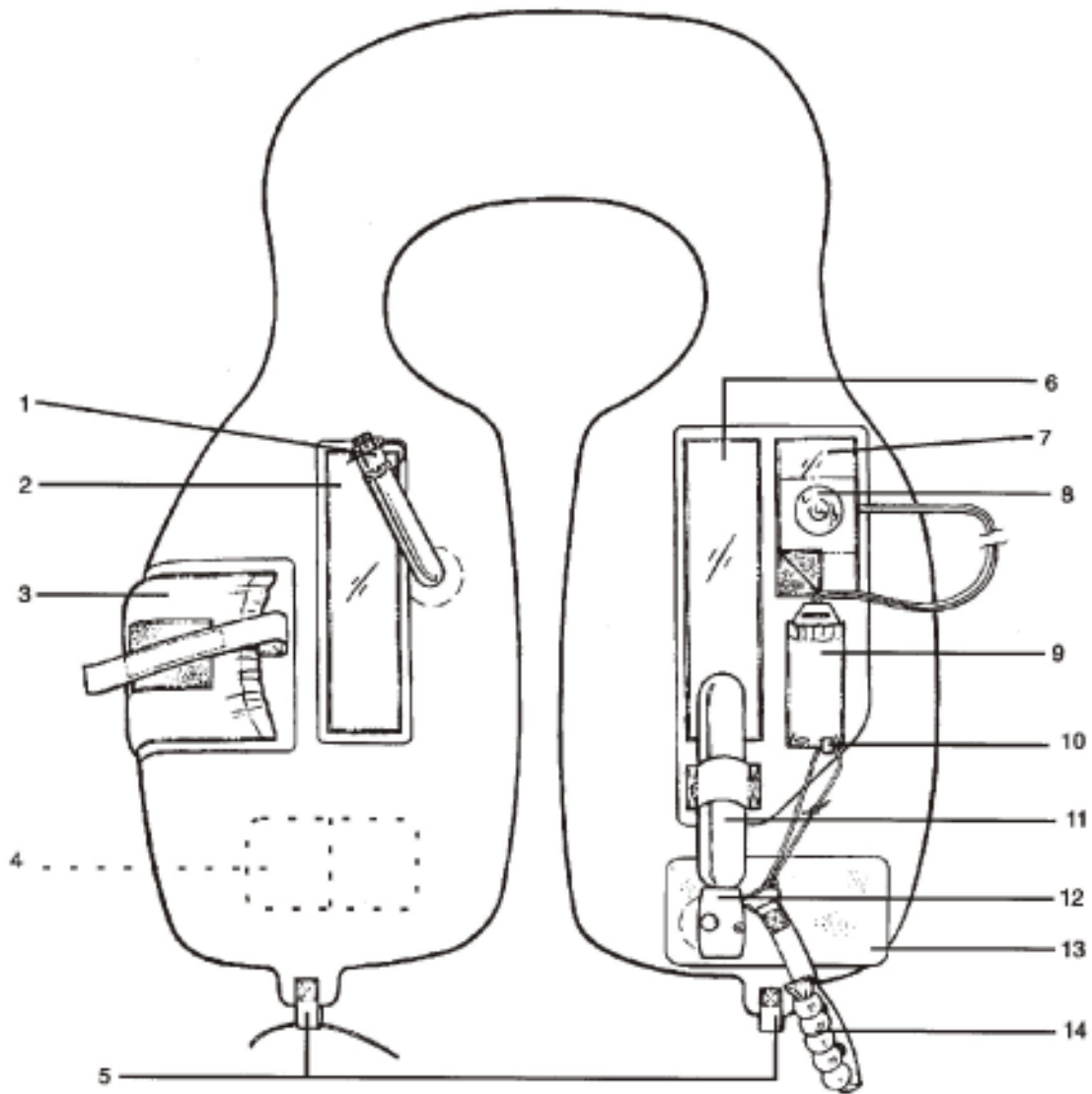
Mk 28 LIFEJACKET (SERIES 4)
FIG 4

LEGEND

- 1 POUCH FLAP IN CLOSED POSITION
- 2 PILLOW SECTION OF POUCH (AS WORN)
- 3 VERTICAL RESTRAINING STRAP
- 4 WAISTBELT ADJUSTABLE BUCKLE
- 5 WAISTBELT QUICK RELEASE FITTING
- 6 INFLATABLE ANCHOR STOLE BECKETS
- 7 TOUCH-AND-CLOSE FASTENERS
- 8 EYELETS
- 9 INFLATION KNOB RETAINING TUNNEL



SPRAY SHIELD (USED ON SERIES 4, STITCHED ON)
FIG 5



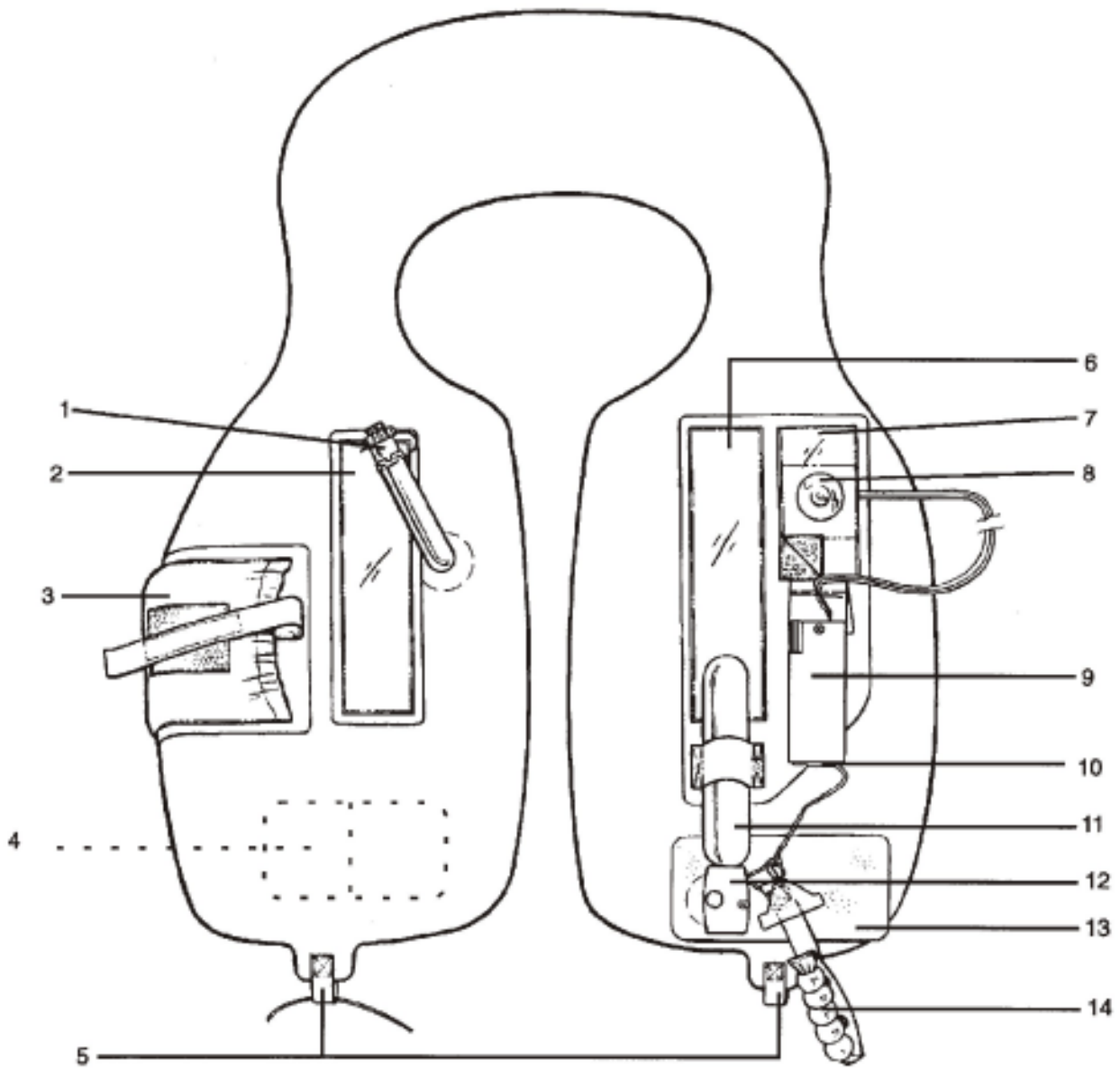
INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)
FIG 6

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)
FIG 6

LEGEND

- 1 ORAL INFLATION VALVE
- 2 RETRO-REFLECTIVE PATCH
- 3 PLB STOWAGE POCKET
- 4 SPRAY SHIELD TOUCH-AND-CLOSE ANCHOR PATCH
- 5 ANCHOR BECKET TO POUCH
- 6 RETRO-REFLECTIVE PATCH
- 7 DETACHABLE SEA LIGHT HOUSING
- 8 FILAMENT AND LENS
- 9 SEASAFE "SEALUX" BATTERY
- 10 SEALIGHT SWITCH PIN
- 11 DISPOSABLE CO₂ CYLINDER
- 12 OPERATING MECHANISM
- 13 PROTECTION COVER
- 14 BEADED HANDLE



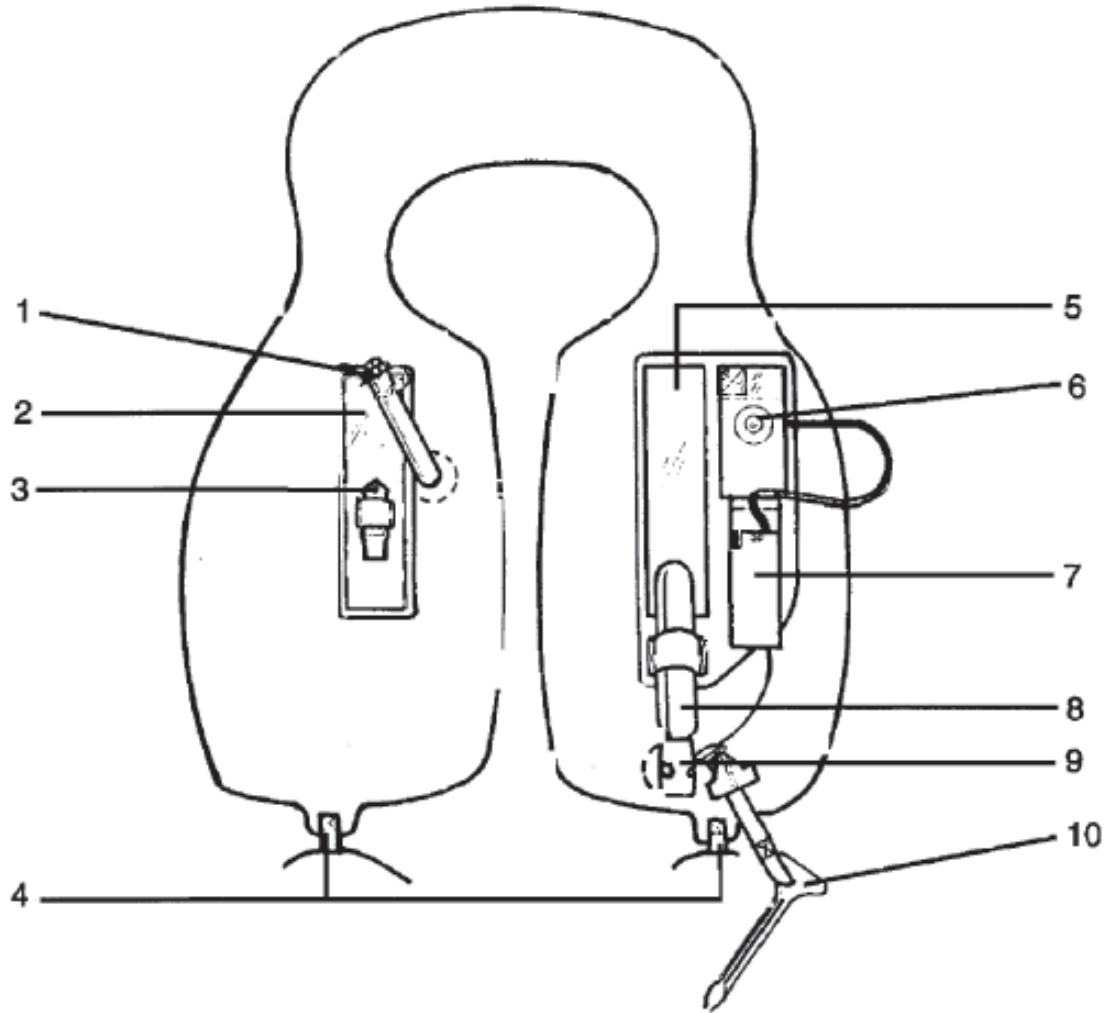
INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)
FIG 7

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

INFLATABLE STOLE (SERIES 1 TO 3 INCLUSIVE)
FIG 7

LEGEND

- 1 ORAL INFLATION VALVE
- 2 RETRO-REFLECTIVE PATCH
- 3 PLB STOWAGE POCKET
- 4 SPRAY SHIELD TOUCH-AND-CLOSE ANCHOR PATCH
- 5 ANCHOR BECKET TO POUCH
- 6 RETRO-REFLECTIVE PATCH
- 7 DETACHABLE SEA LIGHT HOUSING
- 8 FILAMENT AND LENS
- 9 McMURDOLJ1 BATTERY
- 10 BATTERY TRIPLINE ATTACHMENT POINT
- 11 DISPOSABLE CO₂ CYLINDER
- 12 OPERATING MECHANISM
- 13 PROTECTION COVER
- 14 BEADED HANDLE



INFLATABLE STOLE (SERIES 4)
FIG 8

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

INFLATABLE STOLE (SERIES 4)
FIG 8

LEGEND

- 1 ORAL INFLATION VALVE
- 2 RETRO-REFLECTIVE PATCH
- 3 WHISTLE
- 4 ANCHOR BECKET TO POUCH
- 5 RETRO-REFLECTIVE PATCH
- 6 FILAMENT AND LENS
- 7 McMURDOLJ1 BATTERY
- 8 DISPOSABLE CO₂ CYLINDER
- 9 OPERATING MECHANISM
- 10 INFLATION KNOB



SPRAY SHIELD (DEPLOYED)
FIG 9

2 DESCRIPTION

- 2.1 The Mk 28 Series 1 to 3 inclusive Lifejacket is designed for use by Aircrew and the Mk 28 Series 4 by passengers of helicopter or fixed wing aircraft.
- 2.2 The Lifejacket is designed to provide a minimum of 16 Kg buoyancy. It will turn the wearer, conscious or unconscious, face up at an angle of between 30°C to 60°C from the vertical with mouth and nose held clear of the water.
- 2.3 The following items make up the lifejacket assembly:
 - 2.3.1 Protective pouch
 - 2.3.2 Inflatable stole
 - 2.3.3 Harness assembly
 - 2.3.4 Personal Locator Beacon (PLB) pocket
 - 2.3.5 Mini flare pocket
 - 2.3.6 Inflation mechanism
 - 2.3.7 Battery and light assembly
- 2.4 Mk 28 Lifejacket Series 1, (Refer Fig 1)
 - 2.4.1 The Mk 28 Lifejacket Series 1, is complete with PLB pocket and Mini-Flare pocket, less Spray Shield.
 - 2.4.2 A separate balaclava spray hood, which is stowed in the coverall pocket, can be attached over the inflated lifejacket by the wearer.
- 2.5 Mk 28 Lifejacket Series 2, (Refer Fig 2)
 - 2.5.1 The Mk 28 Lifejacket Series 2 is identical to the Mk 28 Lifejacket Series 1 but comes with a spray shield which is attached by means of press fasteners.
- 2.6 Mk 28 Lifejacket Series 3, (Refer Fig 3)
 - 2.6.1 The Mk 28 Lifejacket Series 3 is identical to the Mk 28 Lifejacket Series 1, less left hand mini-flare pocket.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

2.7 Mk 28 Lifejacket Series 4, (Refer Fig 4)

2.7.1 The Mk 28 Passenger Lifejacket Series 4 is based on the Mk 28 Crew Lifejacket Series 2 with the following variants in the basic design:

2.7.1.1 A spray hood, coloured Traffic Yellow, is permanently attached to the pillow section of the pouch by two rows of stitching. The hood is folded back into the pouch when not in use.

2.7.1.2 The inflatable stole is coloured Traffic Yellow. The PLB pocket is not attached.

2.7.1.3 The left lobe of the pouch (as worn) bears the logo 'PASSENGER' and the right lobe bears the logo 'FRONT'. No PLB aerial or survival aids pockets are attached.

2.7.1.4 The waist adjustment belt is reduced in length.

2.7.1.5 A red operating handle is attached in place of the standard beaded handle.

2.8 Protective Pouch

2.8.1 The pouch is manufactured from hard-wearing polyester fabric, dyed black.

2.8.2 The pouch covers the deflated and folded stole and protects it from wear and weather.

2.8.3 The outside edge of each stole lobe has strips of touch-and-close fasteners attached. When the stole inflates, the fasteners part and the pouch opens.

2.8.4 On the Mk 28 Lifejacket Series 1 and 2 the whistle is stowed in the Mini-flare pocket.

2.8.5 On the Mk 28 Lifejacket Series 3 the whistle is stowed in the PLB pocket.

- 2.9 Inflatable Stole
 - 2.9.1 The inflatable stole is manufactured from polyurethane coated nylon fabric dyed orange.
 - 2.9.2 The stole comprises of two panels, a front and back welded together to form a single chamber.
 - 2.9.3 An oral inflation tube and valve assembly is welded into the front panel of the stole on the right lobe through which the wearer can top up the stole pressure. The inflation tube is covered with a dust cap.
 - 2.9.4 A Schrader valve stem is welded to the front panel in the bottom right hand corner.
 - 2.9.5 Two strips of retro-reflective tape are attached to the front panel of the stole, one each lobe. The highly efficient, light reflecting properties of the tape are an aid to search and rescue services for locating the lifejacket wearer in the water at night.
 - 2.9.6 A webbing anchor becket is attached to the bottom of each stole lobe. Cord is used to attach each becket to corresponding beackets on the protective pouch.
 - 2.9.7 Touch-and-close patches are located at the lower back panel of each lobe to facilitate anchorage of the mating touch-and-close patches on either the Spray Shield or Spray Hood.
 - 2.9.8 On Mk 28 Lifejacket Series 1 to 3 inclusive, a PLB stowage pocket is attached to the right lobe.
 - 2.9.9 On Mk 28 Lifejacket Series 4, a whistle is attached to an elastic loop on the retro reflective tape on the right lobe. The whistle is held in place by winding the cord around the whistle and into the elastic loop.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

2.10 Harness Assembly

2.10.1 The harness assembly is manufactured from broad nylon webbing, forming a waist belt and vertical restraining strap.

2.10.2 One end of the vertical restraining strap is attached to the pillow section of the pouch. The free end is folded back and formed into a 6 cm loop.

NOTE: On Mk 28 Lifejacket Series 3 a back adjustable buckle is used instead of the folded back loop.

2.10.3 A two piece quick release buckle is attached to the ends of the waist belt.

2.10.4 A girth adjustment buckle is attached to the waist belt on the left side, towards the wearers' back.

2.11 Personal Locator Beacon (PLB) pocket

2.11.1 A PLB pocket is stitched to the right side of the waist belt on Mk 28 Lifejacket Series 1, 2 and 3. The pocket is suitable for stowage of a SARBE 6 beacon.

2.11.2 On Mk 28 Lifejacket Series 3 the whistle is attached to the PLB pocket through one of eyelets and stowed inside.

2.12 Mini-flare Pocket

2.12.1 A mini-flare pocket is stitched to the left side of the waist belt on Mk 28 Lifejacket Series 1 and 2. The pocket also contains a heliograph signal mirror and a rescue signal code card.

2.12.2 The whistle is attached to the mini-flare pocket through one of the eyelets and stowed inside.

2.13 Inflation Mechanism. (Refer Fig 10)

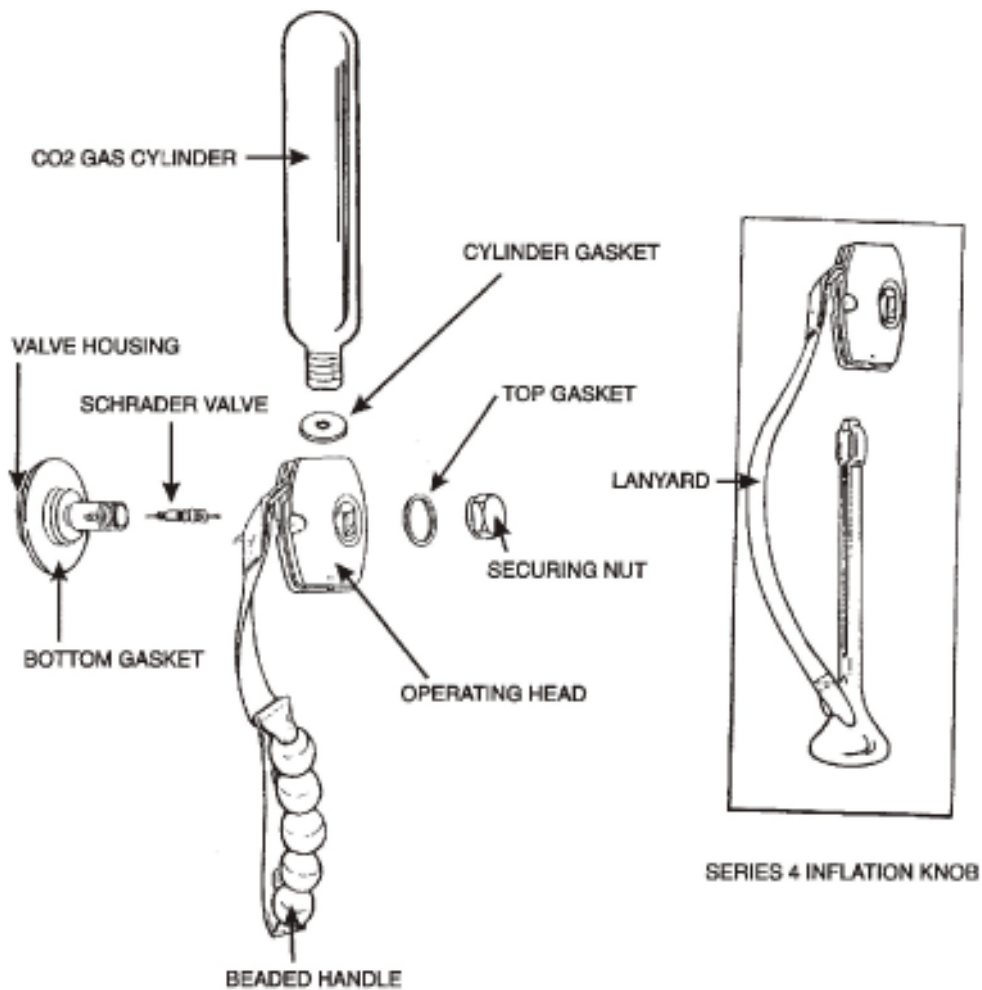
2.13.1 The stole is inflated with carbon dioxide gas from a 33g disposable cylinder. The cylinder is held in place in a fabric loop.

2.13.2 The cylinder is attached to Halkey Roberts, 1/2" thread, Inflation Mechanism Type 8.

2.13.3 An operating lanyard made from 20 mm wide nylon webbing is attached to the inflation mechanism operating lever.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 2.13.4 On Mk 28 Lifejacket Series 1, 2 and 3 a line of plastic beads are threaded along the loop at the end of the operating lanyard to form an operating handle.
- 2.13.5 On Mk 28 Lifejacket Series 4, an inflation knob is attached to the end of the operating lanyard in lieu of the beads.



INFLATION MECHANISM
FIG 10

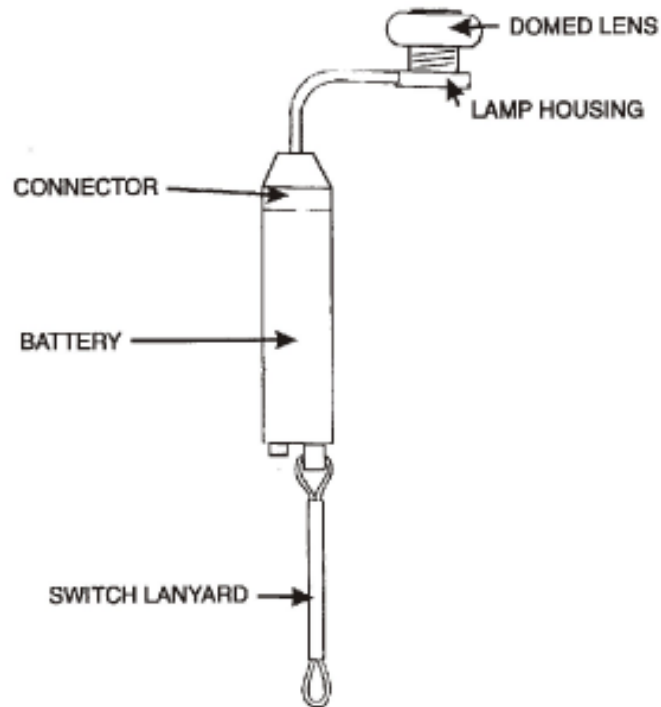
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 2.14 Battery and Lamp Assembly
 - 2.14.1 An emergency battery and lamp assembly is attached to the stole.
 - 2.14.2 A McMurdo LJ1 or a Seasafe "Sealux" assembly is attached to the stole.
 - 2.14.3 The lamp housing, with mushroom domed lens, is attached through a hole in the light assembly mounting loop.
 - 2.14.4 Seasafe "Sealux" Battery (Refer Fig 11)
 - 2.14.4.1 Lifejackets manufactured before November 1989 contain a Seasafe "Sealux" Battery.
 - 2.14.4.2 The battery is stowed in a pocket which is attached to the left stole lobe.
 - 2.14.4.3 The battery activating pin is attached to the inflation mechanism operating lanyard.
 - 2.14.4.4 Batteries that have expired or are defective shall be replaced with a McMurdo LJ1 Battery.
 - 2.14.5 McMurdo LJ1 Battery (Refer Fig 12)
 - 2.14.5.1 Lifejackets manufactured after November 1989 contain a McMurdo LJ1 battery.
 - 2.14.5.2 The battery is attached to a fabric loop on the left stole lobe.
 - 2.14.5.3 The operating toggle is attached to the inflation mechanism operating lanyard.
- 2.15 Operation
 - 2.15.1 The Mk 28 Lifejacket is donned in the same way as a waistcoat.
 - 2.15.2 The wearer shall interlock the two parts of the fastening buckle at the front of the waist.
 - 2.15.3 Using the waist adjustment buckle, the wearer shall alter the girth of the waist belt until the lifejacket fits clearly and comfortably.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

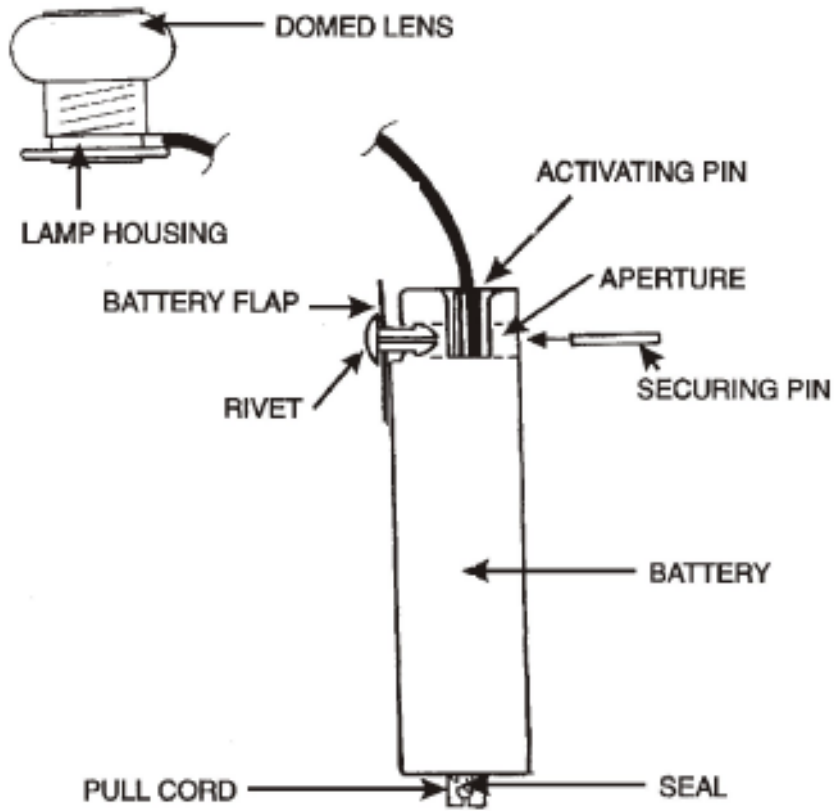
WARNING: WEARERS SHALL NOT INFLATE LIFEJACKETS UNTIL THEY ARE OUTSIDE THE AIRCRAFT.

- 2.15.4 The lifejacket will inflate rapidly when the beaded handle (or operating knob on Series 4 lifejackets), is pulled down firmly.
- 2.15.5 Subsequent inflation or topping up of the strole pressure can be done orally by the wearer.



SEASAFE SEALUX BATTERY AND LAMP ASSEMBLY
FIG 11

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



McMURDO LJ1 BATTERY AND LAMP ASSEMBLY
FIG 12

3 MAINTENANCE SCHEDULE

3.1 All Lifejackets shall be inspected and tested at periods not exceeding 12 months or as agreed between the operator and their appropriate Approval Authority and as follows:

3.1.1 At any time if they have been inflated.

3.1.2 At any time if they are, or are suspected of being damaged.

3.1.3 At any time if the pouch has been opened by unauthorised persons.

THIS PAGE INTENTIONALLY BLANK

4 DISASSEMBLY

- 4.1 Put the lifejacket on a flat, clean surface.
 - 4.2 Open the right side PLB pocket, (if attached).
 - 4.3 Disconnect the lanyard from the PLB.
 - 4.4 Remove the PLB from the pocket.
 - 4.5 Submit the PLB for inspection and testing, according to the Manufacturers' instructions.
 - 4.6 Open the left side equipment pocket and remove the contents. Put the contents in a safe area for inspection at a later stage.
 - 4.7 Find the eyelet on the left side of the pouch, 18 cm up from the bottom of the lobe.
 - 4.8 Cut, remove and discard the red breaking cord from the eyelet.
 - 4.9 Starting from the bottom of the left pouch lobe, carefully part the touch-and-close fastener.
 - 4.10 Find the CO 2 cylinder. (Refer Fig 10).
 - 4.11 Firmly grasp the inflation mechanism and remove the CO 2 cylinder.
- NOTE: Care shall be taken to avoid accidental inflation of the stole during disassembly.
- 4.12 Fully open the Touch-and-close fastener on both sides of the pouch.
 - 4.13 (Refer Fig 6, 7 and 8). Find the anchor beackets at the bottom of each stole lobe.
 - 4.14 Cut, remove and discard the cords which attach the stole anchor beackets to the pouch.
 - 4.15 Mk 28 Lifejackets, Series 1, 2 and 3 only.
 - 4.15.1 Disconnect the battery activating lanyard from the cord loop at the top of the beaded handle.

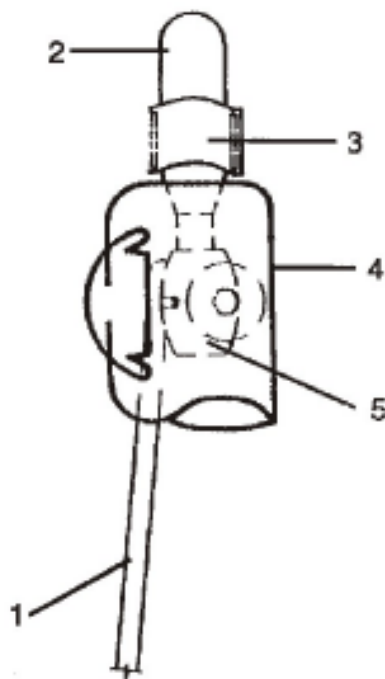
4.16 Mk 28 Lifejacket, Series 4.

4.16.1 Disconnect the battery activating lanyard from the cord loop which attaches the operating knob lanyard to the inflation mechanism.

4.17 Put the right stole lobe up into the pillow section of the pouch.

4.18 Carefully pull down the left stole lobe and separate the stole from the pouch.

4.19 (Refer Fig 13). Open the cover around the inflation mechanism.



INFLATION MECHANISM COVER
FIG 13

LEGEND

- | | | | |
|---|--------------------------|---|---------------------------|
| 1 | LANYARD | 4 | INFLATION MECHANISM COVER |
| 2 | CO ₂ CYLINDER | 5 | INFLATION MECHANISM |
| 3 | LOOP | | |

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 4.20 Pull the inflation mechanism operating toggle and observe the rise and fall of the cylinder piercing pin as the lever travels.
- 4.21 Using a 9/16" WHITWORTH spanner, remove the chrome cap nut.
- 4.22 Remove and discard the sealing gasket from the recess in the inflation mechanism around the valve stem.
- 4.23 Take the inflation mechanism off the valve stem.
- 4.24 Remove the inflation mechanism cover.
- 4.25 Remove and discard the sealing gasket at the base of the valve stem.
- 4.26 Seasafe "Sealux" Battery and Lamp Assembly.
 - 4.26.1 Remove the domed lens from the lamp housing.
 - 4.26.2 Carefully remove the lamp filament from the housing.
 - 4.26.3 Remove the lamp housing from the stowage pocket.
 - 4.26.4 Remove the battery from its' stowage pocket.
- 4.27 McMurdo LJ1 Battery and Lamp Assembly.
 - 4.27.1 Remove the domed lens from the lamp housing.
 - 4.27.2 Carefully remove the lamp filament from the housing.
 - 4.27.3 Remove the lamp housing from the stowage loop.
 - 4.27.4 Using a suitable blunt probe, push the peg out of the rivet at the top of the battery.
 - 4.27.5 Remove the rivet and detach the battery from the stowage loop.

THIS PAGE INTENTIONALLY BLANK

5 CLEANING

- 5.1 If necessary the stole can be cleaned using a solution of 1 part acid free detergent to 99 parts lukewarm water. Apply the solution to the stole using a sponge or soft cloth.
- 5.2 The pouch may be cleaned with the same solution applied with a stiff brush, NOT WIRE.
- 5.3 After immersion in salt water, CO₂ cylinders shall be rinsed in fresh water and left to dry naturally.
- 5.4 After cleaning, items shall be rinsed in fresh water and left to dry naturally.

THIS PAGE INTENTIONALLY BLANK

6 INSPECTION

6.1 General

6.1.1 Components which are unsatisfactory shall be repaired within the limits given at Chapter 8 or replaced.

6.2 Inflatable Stole

6.2.1 Examine the stole carefully for damage or staining. If the stole requires patching, refer to Chapter 8. If persistent stains caused by oil or grease cannot be removed the stole shall be replaced.

6.2.2 Examine integrity of welding on seams, oral inflation tube and gas inflation valve.

6.2.3 Using a Schrader tool, remove the valve from the stem.

6.2.4 Examine the Schrader valve for damage.

6.2.5 Push the valve spindle up and down making sure that it moves freely.

6.2.6 Replace the valve if damaged or suspect.

CAUTION: DO NOT OVERTIGHTEN THE VALVE.

6.2.7 Using the Schrader tool, put the Schrader valve into the valve stem finger tight.

6.2.8 Remove the dust cap from the oral inflation tube.

CAUTION: DO NOT OVER INFLATE THE STOLE.

6.2.9 Blow into the tube to check the operation of the valve.

6.2.10 Inflate the stole to a firm pressure orally or using an oil free air compressor.

6.2.11 Listen carefully for a hissing sound indicating air leaks.

6.2.12 Identify the source of the leak. If it is caused by a loose valve, tighten it correctly. If it is caused by a faulty oral inflation valve, replace the valve as given at Chapter 8.

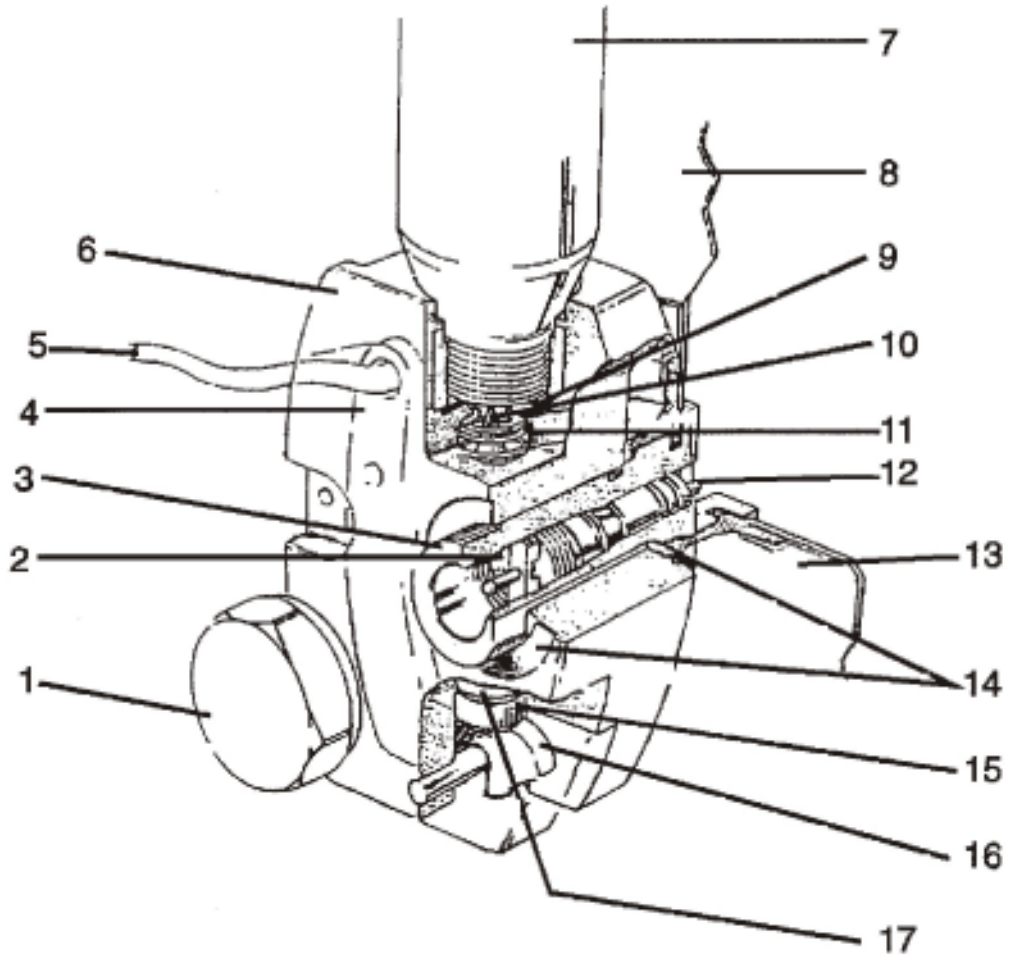
6.2.13 Mk 28 Lifejackets, Series 4, examine the whistle lanyard. Make sure that it is attached correctly.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 6.2.14 Examine the whistle retainer. Make sure it is not damaged.
- 6.2.15 Remove the whistle from the retainer. Make sure the whistle works correctly. Replace the whistle if damaged or defective.
- 6.2.16 Put the whistle back in the retainer.
- 6.2.17 Examine the CO₂ cylinder loop for damage. Make sure each loop is correctly attached to the stole.
- 6.2.18 Examine each oral inflation tube for damage. Make sure the dust caps are correctly attached to the oral inflation tubes.
- 6.2.19 Examine the battery stowage pocket for damage if attached. Make sure it is correctly attached to the stole.
- 6.2.20 Examine the light assembly loop for damage if attached. Make sure it is correctly attached to the stole.
- 6.2.21 Examine clarity of printed detail. If detail is not clear it shall be stencilled using ink, BS.F IOO to the latest issue.
- 6.2.22 Examine the retro reflective tapes. Make sure they are correctly attached and that it is not dull or crazed. Replace if damaged or suspect.
- 6.2.23 Examine the anchor beackets. Make sure they are correctly attached to the stole.
- 6.2.24 Examine the PLB stowage pocket for damage. Make sure it is correctly attached to the stole.
- 6.2.25 Examine the touch and close patch for damage. Make sure it is correctly attached to the stole.
- 6.3 Manual Inflation Mechanism (Refer Fig 10 and 14)
 - 6.3.1 Examine the inflation mechanism carefully.
 - 6.3.2 Examine the threads inside the CO₂ cylinder recess and carefully clear away any debris.
 - 6.3.3 Examine the manual inflation operating lever for damage.
 - 6.3.4 Examine the beaded handle lanyard (or operating knob lanyard). Make sure it is correctly attached to the mechanism lever.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

6.3.5 Examine the beads operating toggle for damage.



MANUAL INFLATION MECHANISM
FIG 14

LEGEND

1	CHROME CAP NUT	9	GASKET
2	INLET APERTURE	10	PIERCING PIN
3	VALVE STEM	11	SPRING
4	OPERATING LEVER	12	SCHRADER VALVE
5	INFLATION KNOB LANYARD	13	FABRIC
6	MECHANISM BODY	14	GASKET
7	CO ₂ CYLINDER	15	PLUNGER
8	LIFEJACKET PANEL	16	OPERATING LEVER
		17	'O' RING

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

6.4 CO₂ Cylinder

- 6.4.1 Examine each CO₂ cylinder for corrosion, dents, condition of threads and legibility of stamped details.
- 6.4.2 Replace if damaged or suspect.
- 6.4.3 Check the weight of each CO₂ cylinder on an accurate weighing machine, calibrated in grammes, against the weight stamped on the cylinder body. (Tolerance - 0 grammes + 3 grammes).
- 6.4.4 Replace any cylinder which is outside the weight tolerance.

6.5 McMurdo U1 Battery and Lamp Assembly (Fig 12)

WARNING: DO NOT ATTEMPT TO RECHARGE OR INCINERATE THE BATTERY.

- 6.5.1 Note the battery and lamp assembly expiry date. Replace the assembly if it is within 6 months of the expiry date.
- 6.5.2 Examine the battery, cable, lanyard and lamp housing for damage. Replace if damaged or suspect.
- 6.5.3 Examine the mushroom domed lens. Replace if damaged or suspect.
- 6.5.4 Examine the battery lanyard for damage. Make sure that the activating toggle is correctly attached.
- 6.5.5 Test the assembly as given at Chapter 7.

6.6 Seasafe "Sealux" Battery and Lamp Assembly

WARNING: DO NOT ATTEMPT TO RECHARGE OR INCINERATE THE BATTERY.

- 6.6.1 Note the battery and lamp assembly expiry date. Replace the assembly if it is within 6 months of the expiry date.
- 6.6.2 Examine the battery cable, lanyard and lamp housing for damage. Replace if damaged or suspect.
- 6.6.3 Examine the mushroom domed lens. Replace if damaged or suspect.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 6.7 Pouch and Harness Assembly
 - 6.7.1 Examine the pouch and harness for damage and contamination. Examine all components for correct attachment.
 - 6.7.2 Examine the PLB pocket. Examine the stitching and make sure it is attached correctly to the waist belt.
 - 6.7.3 Examine the press fasteners on the PLB pocket. Make sure that it operates correctly.
 - 6.7.4 Examine the PLB activating bead and press fastener. Make sure it is attached correctly to the pocket.
 - 6.7.5 Examine the eyelets in the PLB pocket. Make sure that they are not damaged or loose.
 - 6.7.6 Examine the MiniFlare pocket. Examine the stitching and make sure it is attached correctly to the waist belt.
 - 6.7.7 Examine the eyelets in the MiniFlare pocket. Make sure that they are not damaged or loose.
 - 6.7.8 Examine the waist belt front fastening buckle. Make sure it is attached correctly to the waist belt.
 - 6.7.9 Examine all Touch-and-close fasteners. Make sure they are correctly attached and that they grip satisfactorily.
 - 6.7.10 Examine the waist belt adjustable buckle. Make sure it is attached correctly to the waist belt.
 - 6.7.11 Examine all stitching. Make sure it is unbroken.
 - 6.7.12 Open and close all press fasteners. Make sure they operate correctly.
 - 6.7.13 Replace any pouch which is damaged or defective.

- 6.8 Spray Shield
 - 6.8.1 Examine the spray shield fabric. Make sure it is clean and undamaged.
 - 6.8.2 Examine ail stitching and make sure it is unbroken.
 - 6.8.3 Examine all press fasteners. Make sure they are attached correctly to the spray shield.
 - 6.8.4 Attach the face shield press fasteners to the pillow section of the pouch. Make sure they close correctly.
 - 6.8.4 Examine the touch-and-close tapes. Make sure they are attached correctly.
 - 6.8.5 Make sure the viewing panel is clear. If not, it shall be cleaned as stated in Chapter 5.
 - 6.8.6 Examine the retro-reflective tapes. Make sure they are clean and attached correctly to the face shield.
- 6.9 Inflation Mechanism Cover
 - 6.9.1 Examine the inflation mechanism cover for tears and dirt. Replace if damaged.

7 TEST PROCEDURE

7.1 Tools and Special Equipment

7.1.1 The following items are required to test the inflatable stole:

7.1.1.1 Oil free air compressor

7.1.1.2 Manometer, calibrated in cms wg

7.1.1.3 Test adaptor Dwg No. C.21155/3

7.1.1.4 Test solution of 1 part acid-free detergent to 9 parts clean water

7.2 Test Control

7.2.1 Stole pressure tests shall be done under stable temperature conditions, free from draughts and direct sunlight.

7.2.2 The stole shall be supported from the floor and surrounding walls.

7.2.3 The temperature shall be recorded at the beginning and the end of the chamber test.

7.2.4 For each degree Celsius RISE in temperature over the test period, 38 mm shall be SUBTRACTED from the final pressure reading.

7.2.5 For each degree Celsius FALL in temperature over the test period, 38 mm shall be ADDED to the final pressure reading.

7.2.6 When the variation in temperature exceeds 3 degrees Celsius during the test period, the test shall be declared invalid and repeated.

7.3 Test Procedure

7.3.1 Place the stole on a clean, flat surface.

7.3.2 Find the oral inflation tube and valve assembly. Remove the black dust cap from the end of the tube.

7.3.3 Attach the air supply line, via the manometer and test adaptor Dwg No C.21155/3 to the oral inflation tube.

NOTE: Make sure that the rubber shroud around the test adaptor fits closely around the oral inflation tube.

CAUTION: THE STOLE CHAMBER SHALL BE INFLATED SLOWLY AND THE PRESSURE CLOSELY MONITORED TO PREVENT OVER INFLATION.

7.3.4 SLOWLY inflate the stole to a pressure of 100 cm wg and shut off the air supply.

7.3.5 Leave the stole to settle for a period of 5 minutes.

7.3.6 Record the stole pressure after the settlement period.

7.3.7 If the stole pressure is LESS than 75 cm wg, proceed as follows:

7.3.7.1 Apply test solution detailed at Para 7.1.1.4 to the connection between the oral inflation tube and adaptor.

7.3.7.2 Make sure that air bubbles are not forming around the areas where the solution is applied.

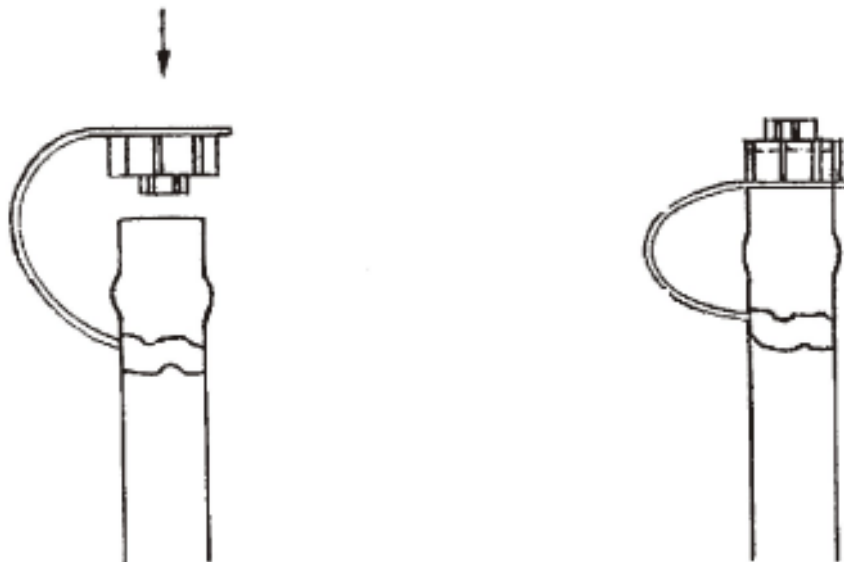
7.3.7.3 If air bubbles are discovered around the oral inflation tube, reposition the test adaptor rubber shroud and depress the test adaptor fully into the tube until the union is fully sealed, and re-start the test.

7.3.7.4 If no air loss is found around the test adaptor, apply the solution to the surface area of the stole until the leak is discovered.

NOTE: If the initial test pressure is between 100 cm wg and 75 cm wg, the stole may be tested.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 7.3.8 Record the chamber pressure if it is greater than 75 cm wg.
- 7.3.9 Record the temperature.
- 7.3.10 Leave the chamber for a test period of 5 minutes.
- 7.3.11 Record the chamber pressure.
- 7.3.12 Record the temperature and apply the variation procedure as given at Paras 7.2.4. to 7.2.6 to the pressure recorded at Para 7.3.11.
- NOTE: This procedure will apply only if a variation exists between the temperatures recorded at Para 7.3.9 and 7.3.12.
- 7.3.13 The difference between the initial pressure figure and the final adjusted figure shall not be greater than 10 mm.
- 7.3.14 If the chamber fails test, proceed as detailed at Para 7.3.7.1 to 7.3.7.4.
- 7.3.15 When the stole chamber passes test, remove the test adaptor from the oral inflation tube.
- 7.3.16 Deflate the chamber by depressing the protrusion on top of the dust cap into the oral inflation tube. (Refer Fig 15).



ORAL INFLATION TUBE DUST CAP
FIG 15

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

7.4 McMurdo LJ1 Assembly Testing (FIG 12)

7.4.1 Insert a suitable probe into the hole in the black peg at the top of the battery. Depress the probe gently and see that the lamp illuminates.

7.4.2 If the lamp fails to illuminate replace the lamp filament.

7.4.3 Re-test the assembly as given at Para 7.4.1.

7.4.4 If the lamp fails to illuminate, replace the complete assembly.

8 REPAIRS

8.1 Repairs to the lifejacket are limited to patching of small holes or tears as given at Para 8.4 and the replacement of components as given at Para 8.3.

8.2 Patching Limits

8.2.1 Stoles are to be replaced if the following damage is discovered during inspection or testing:

8.2.1.1 Holes or tears greater than 15 mm in diameter length.

8.2.1.2 Holes or tears within 30 mm of a seam, valve stem or oral inflation tube.

8.2.1.3 Damage to the welded seams.

8.2.1.4 Damage to the welded areas around the valve stem or the oral inflation tube.

8.2.1.5 Damage to the oral inflation tube or valve stem.

8.2.1.6 Damage requiring more than one patch to be applied to each panel of the stole.

8.3 Replacements

8.3.1 The following items are to be repaired by replacements only:

8.3.1.1 CO₂ cylinder patch

8.3.1.2 Lamp loop

8.3.1.3 Manual operating mechanism

8.3.1.4 CO₂ cylinder

8.3.1.5 Schrader valve.

8.3.1.6 Oral inflation tube dust cap

8.3.1.7 Battery and lamp assembly

8.3.1.8 Whistle and lanyard

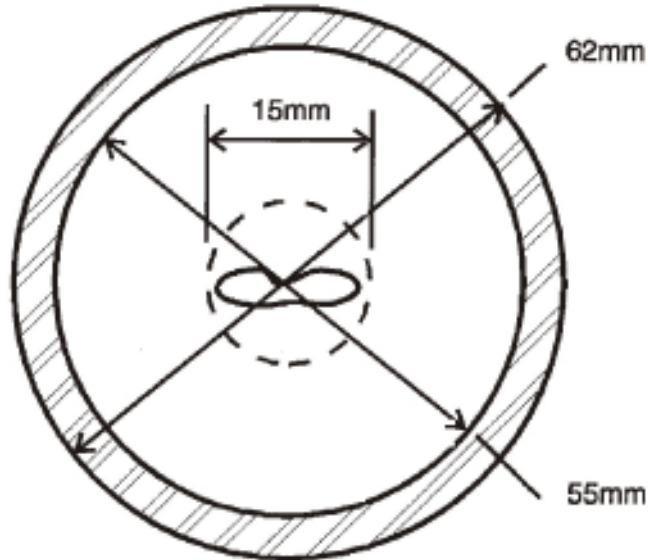
8.3.1.9 Inflation mechanism protection cover

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

8.3.1.10 Spray Shield

8.3.1.11 Balaclava Hood

8.4 Patching Procedure (Refer Fig 16)



PATCHING PROCEDURE
FIG 16

8.4.1 Bring to hand the following:

8.4.1.1 Fabric, (Refer Spares List, Chapter 11)

8.4.1.2 Adhesive to Specification BASE 5001 (Refer Spares List, Chapter 11)

8.4.1.3 Polythene sheeting

8.4.1.4 Paint brush 25 mm

8.4.1.5 Hand roller

8.4.1.6 Chinagraph pencil

8.4.1.7 Dusting powder

CAUTION: ADHESIVE SOLUTION AND DUSTING POWDER SHALL NOT COME INTO CONTACT WITH VALVES.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 8.4.2 Make sure that the damage is within the limits given at Para 8.2.
- 8.4.3 Using chinagraph pencil, draw a circle around the hole or tear 55 mm in diameter. Make sure that the damage is in the centre of the circle.
- 8.4.4 Cut a circle of fabric 55 mm in diameter.
- NOTE: The correct coloured fabric shall be used to patch the stole, ie. flame orange fabric for crew lifejacket stoles; yellow fabric for passenger lifejacket stoles.
- 8.4.5 Using a cloth moistened, NOT SOAKED, with toluene, wipe the matt finish side of the patch and the repair area outlined on the stole.
- 8.4.6 Put the patch on a clean sheet of polythene, matt side up.
- 8.4.7 Using a 25 mm paint brush apply a thin, even coat of adhesive to the patch.
- 8.4.8 Apply a thin, even coat of adhesive to the marked area on the stole. The adhesive shall extend 6 mm beyond the marked repair area giving total coverage of 62 mm.
- 8.4.9 Allow the adhesive to become touch-dry.
- 8.4.10 Apply a second coat of adhesive to the patch and the repair area.
- 8.4.11 Allow the second coat to become touch-dry.
- 8.4.12 Apply a third coat of adhesive to the patch and repair area.
- 8.4.13 Allow the adhesive to become touch-dry, apply the patch to the repair area.
- 8.4.14 Firmly roll the patch to expel creases and air bubbles.
- 8.4.15 Apply dusting powder to the repair area.
- 8.4.16 Allow the adhesive to cure fully before re-testing the stole.

8.5 Oral Inflation Valve Replacement

- 8.5.1 Hold the oral inflation tube in a container of water at 60°C for 10 minutes.
- 8.5.2 Squeeze the tube directly below the valve using finger and thumb.
- 8.5.3 If the valve will not move or will move only with difficulty, put the tube back in the warm water until it is sufficiently soft to slide the valve out.
- 8.5.4 Dry the tube thoroughly.
- 8.5.5 Select a serviceable replacement valve.
- 8.5.6 Push the new valve, NARROW END FIRST, into the oral inflation tube.
- 8.5.7 Push the valve down until the top is 1 mm below the top of the oral inflation tube.

8.6 Manual Inflation Mechanism

- 8.6.1 Sub assembly items of the manual inflation mechanism including the CO₂ cylinder shall be replaced as necessary during maintenance.

8.7 Stitching

- 8.7.1 Broken stitching shall be repaired from a point 25 mm before the break and terminate 25 mm beyond the extent of the break.
- 8.7.2 Stole components requiring stitching shall be removed from the stole whilst repairs are effected.

8.8 Adhesive Repairs

CAUTION: ADHESIVE SOLUTION AND DUSTING POWDER SHALL NOT COME INTO CONTACT WITH VALVES.

- 8.8.1 Damaged items shall be removed by carefully peeling apart from the stole.
- 8.8.2 Replacement items shall be of the same dimensions and materials as the original items.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 8.8.3 Surfaces to which adhesive is being applied shall be wiped clean with a cloth **moistened, NOT SOAKED**, with Toluene.
- 8.8.4 The adhesive solution used shall comply to Specification BASE 5001. No other adhesive solutions are permitted.
- 8.8.5 Apply three coats of adhesive to each surface to be joined. Allow each coat to become touch-dry before applying subsequent coats. When final coats are touch-dry join surfaces together.
- 8.8.6 Roll the repair area to expel creases and air bubbles.
- 8.8.7 Lightly apply dusting powder to the repair area.
- 8.9 Oral Inflation Tube Dust Cap
 - 8.9.1 Hold the oral inflation tube in a container of water at 60°C for 10 minutes.
 - 8.9.2 Carefully remove the dust cap from the oral inflation tube.
 - 8.9.3 Dry the tube thoroughly.
 - 8.9.4 Select a serviceable oral inflation dust cap.
 - 8.9.5 Push the new dust cap retaining ring down the oral inflation tube.
- 8.10 Inflation Mechanism Replacement (Series 1, 2 and 3)
 - 8.10.1 Remove the damaged inflation mechanism from the valve stem.
 - 8.10.2 Using sharp scissors, cut the cord which connects the inflation mechanism lanyard to the inflation mechanism lever.
 - 8.10.3 Discard the damaged inflation mechanism.
 - 8.10.4 Carefully cut all the box and gate stitching from the inflation mechanism end of the beaded handle lanyard.
 - 8.10.5 Remove and discard the cord.
 - 8.10.6 Bring to hand a serviceable replacement inflation mechanism .
 - 8.10.7 Cut a 100 mm length of No 2 black cord.

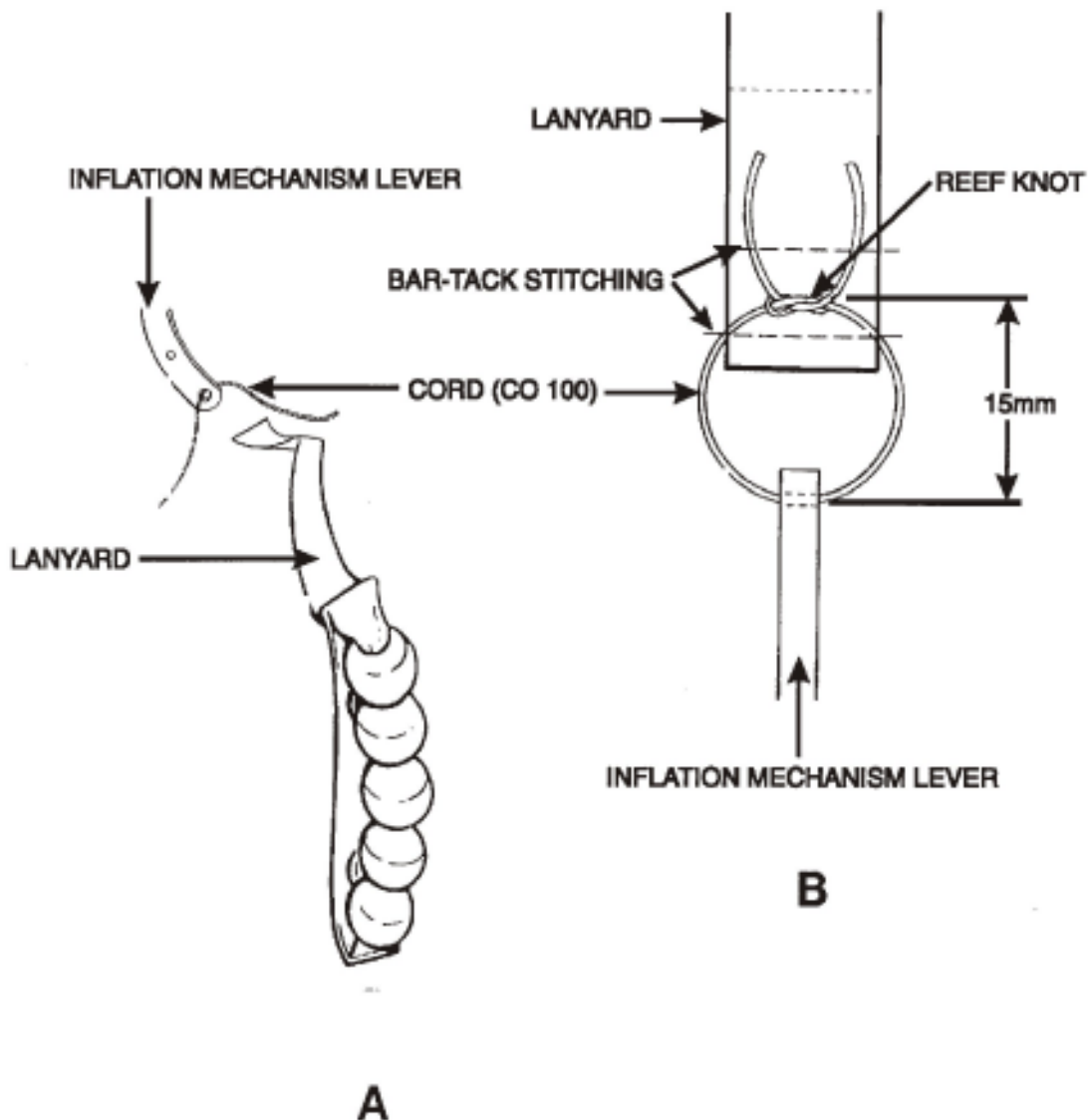
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

8.10.8 Pass one end of the cord through the largest of the two holes in the inflation mechanism lever.

8.10.9 Make a 15 mm loop in the cord by tying a tight reef knot.

8.10.10 Pass the end of the beaded handle lanyard through the loop and fold back on itself by 25 mm.

8.10.11 Machine stitch the lanyard as shown at Fig 17 B.



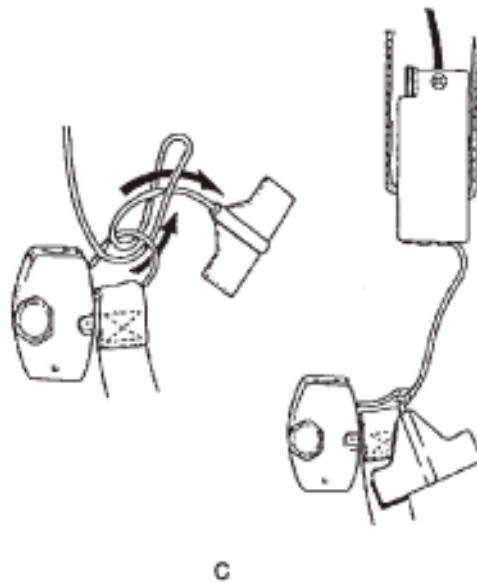
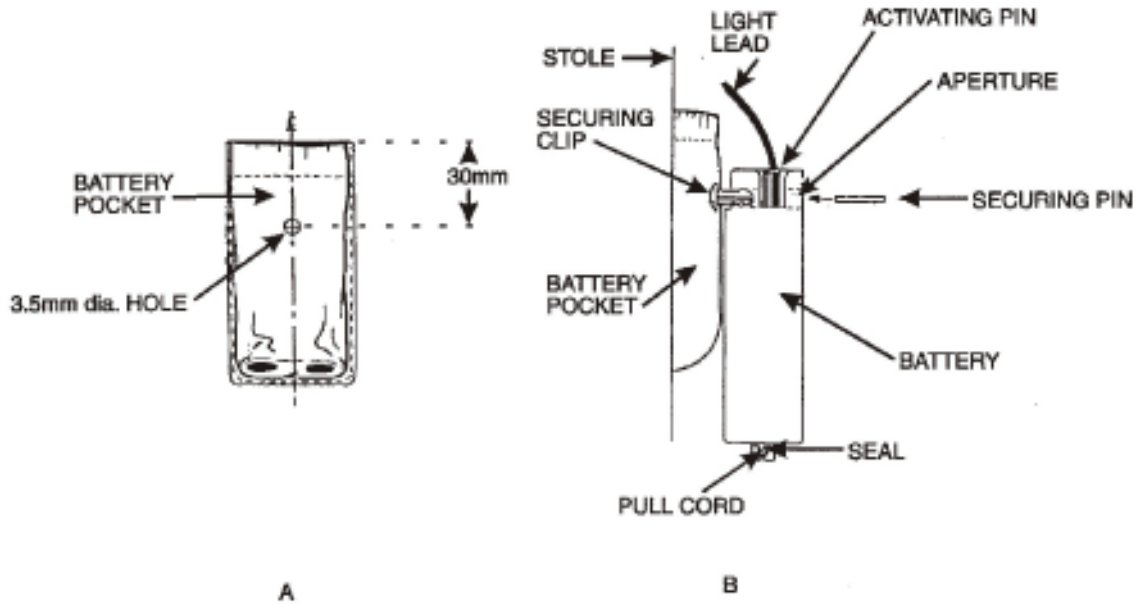
A
RE-ATTACHMENT OF LANYARD TO INFLATION MECHANISM
FIG 17

8.10.12 Cut off the free ends of the cord using a hot knife to seal the ends.

- 8.10.13 Attach the inflation mechanism to the valve stem as given at Chapter 9.
- 8.11 Inflation Mechanism Replacement (Series 4)
 - 8.11.1 Remove the damaged inflation mechanism from the valve stem.
 - 8.11.2 Using sharp scissors, cut the cord which connects the inflation mechanism lanyard to the inflation mechanism lever.
 - 8.11.3 Discard the damaged inflation mechanism.
 - 8.11.4 Carefully cut all the box and gate stitching from the inflation mechanism end of the inflation knob lanyard.
 - 8.11.5 Remove and discard the cord.
 - 8.11.6 Bring to hand a serviceable replacement inflation mechanism.
 - 8.11.7 Cut a 100 mm length of No. 2 black cord.
 - 8.11.8 Pass one end of the cord through the largest of the two apertures in the inflation mechanism lever.
 - 8.11.9 Make a 15 mm loop in the cord by tying a tight reef knot.
 - 8.11.10 Pass the end of the inflation knob lanyard through the loop and fold back on itself by 25 mm.
 - 8.11.11 Machine stitch the lanyard as shown at Fig 17 B.
 - 8.11.12 Cut off the free ends of the cord using a hot knife to seal the ends.
 - 8.11.13 Attach the inflation mechanism to the valve stem as given at Chapter 9.
- 8.12 Changing from a Seasafe "Sealux" battery to a McMurdo LJ1 Battery.
 - 8.12.1 Remove and dispose of the existing Seasafe "Sealux" battery and lamp assembly, including the operating pin lanyard.
 - 8.12.2 Refer to Fig 18 A. Using a chinagraph pencil (not biro), mark on the battery pocket the position of a 3.5 mm diameter aperture.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 8.12.3 Insert a block of wood or similar material into the battery pocket to protect the stole fabric from damage.



ATTACHING McMURDO LJ1 BATTERY AND LAMP ASSEMBLY
FIG 18

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 8.12.4 Using a 3.5 mm drill punch in a twisting motion, make a aperture in the battery pocket at the position marked at Para. 8.12.2. Remove the block of wood from the battery pocket.
- 8.12.5 Refer to Fig 18 B. Insert the securing clip of the press clip fastener into the 3.5 mm aperture in the battery pocket, with the split ends protruding outwards.
- 8.12.6 Refer to Fig 18 B. With the label facing outwards, position the aperture in the battery case moulding over the split ends of the securing clip. Push the battery down firmly over the securing clip.
- 8.12.7 Secure the battery into position by inserting the securing pin of the press clip fastener into the centre of the securing clip.
- 8.12.8 Using a larkshead knot, secure the battery pull cord/toggle to the operating lever on the manual inflator as shown at Fig 18 C.

THIS PAGE INTENTIONALLY BLANK

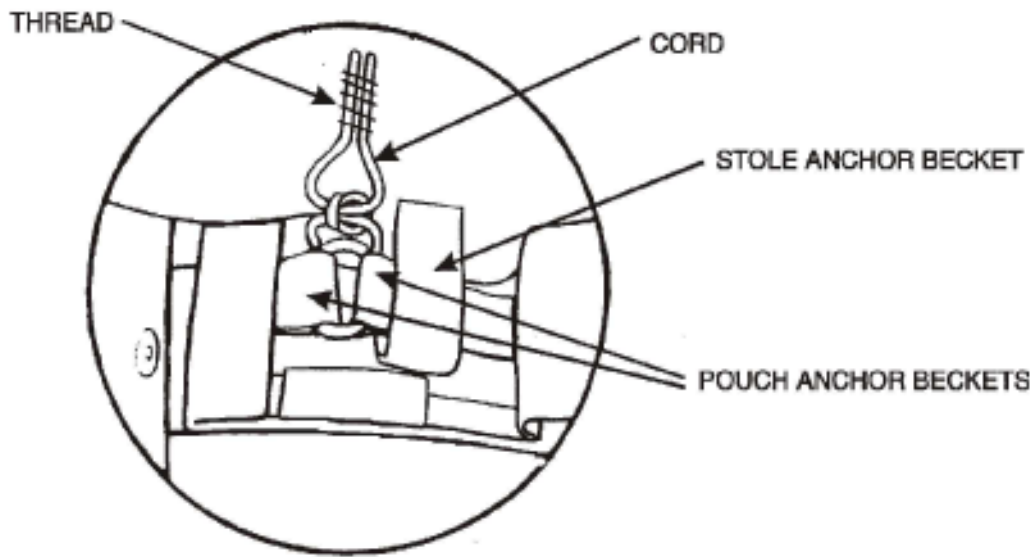
9 ASSEMBLY

- 9.1 Put the stole on a flat, clean surface.
- 9.2 Deflate the stole completely by inverting the oral inflation tube dust cap and pressing the protrusion into the tube. (Refer Fig 15)
- 9.3 Put the pouch alongside the stole. Close the front fastening buckle. Open the Touch-and-close fasteners on each side of the pouch.
- 9.4 Fold the right stole lobe as shown at Fig 19.



FOLDING RIGHT STOLE LOBE
FIG 19

- 9.5 Put the bottom of the stole lobe into the left side of the pillow section of the pouch.
- 9.6 Put the end of the lobe through the pillow section and out the right side.
- 9.7 Partially inflate the stole and make sure it is not twisted inside the pillow section.
- 9.8 Adjust the pouch and the stole position until the lobes are evenly extended from the pouch.
- 9.9 Fully deflate the stole until hard creases are formed in the fabric.
- 9.10 Cut two pieces of No 2 black cord each 15 cm in length and heat seal the ends to prevent fraying.
- 9.11 Attach the stole anchor beackets to the pouch anchor beackets as shown at Fig 20.

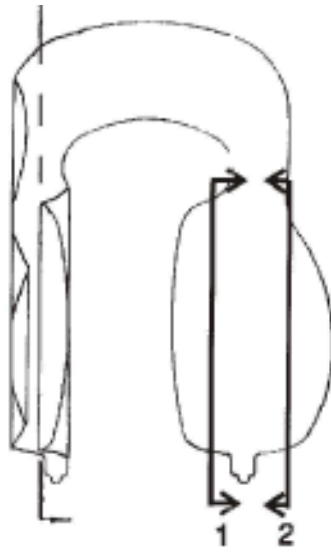


ATTACHMENT OF ANCHOR BECKETS
FIG 20

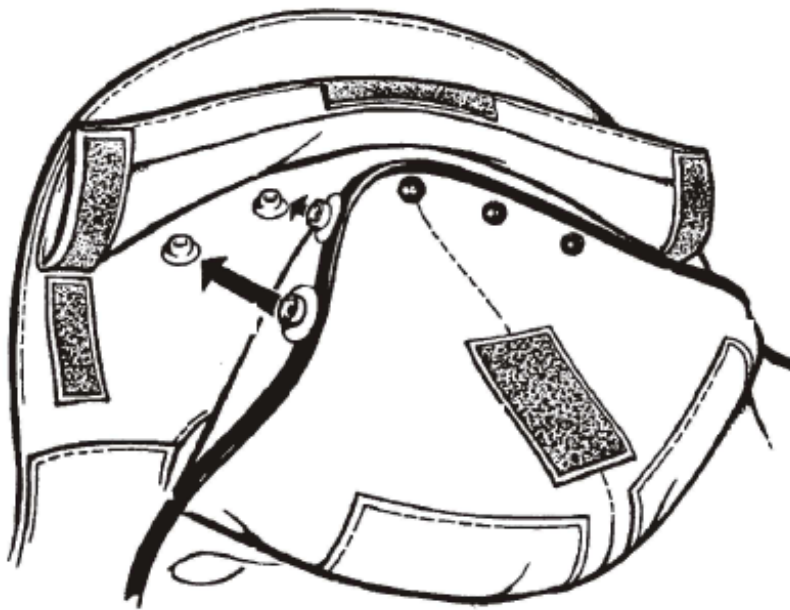
- 9.12 Using reef knots, tightly tie the cords.
- 9.13 Hand stitch through the knots using a sewing needle and YELLOW thread (Metric 36 Pt No. TH 153). Fasten off the thread tightly.
- 9.14 Remove the mushroom domed lens and lamp filament from the lamp housing. Put the lamp housing between the retro-reflective tape and the Touch-and-close fastener which attaches to the left stole lobe. Pass the threaded section of the lamp housing through the hole in the retro-reflective tape.
- 9.15 Put the lamp filament into the housing and screw down firmly.
- 9.16 Attach the housing to the retro-reflective tape by screwing the lens onto the threaded section of the housing.
- 9.17 Using the white plastic rivet and peg, attach the battery to the outside of the 8 cm x 3 cm pocket on the left stole lobe.
- 9.18 Put a sealing gasket (Refer Fig 10) into the recess at the base of the valve stem.
- 9.19 Put the lever into the cocked position.
- 9.20 Put a safety clip in place in the recess on the side of the inflation mechanism.
- 9.21 Put the inflation mechanism cover over the valve stem.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

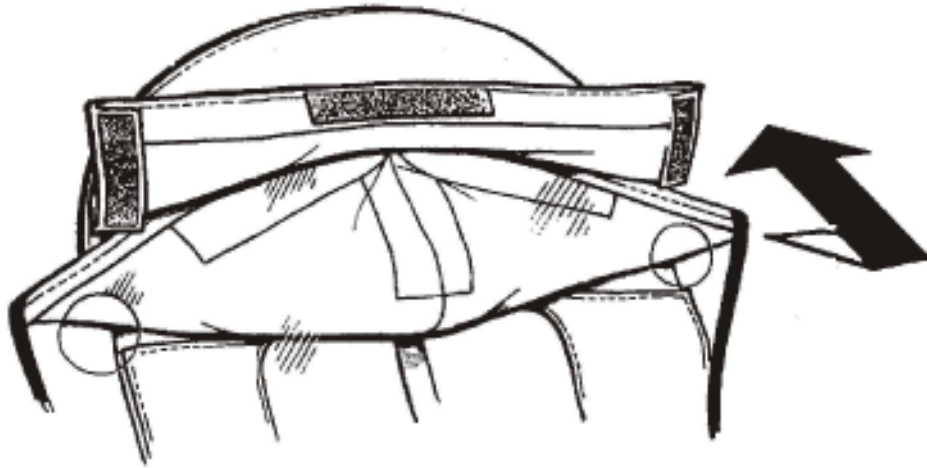
- 9.22 Put the inflation mechanism over the valve stem. Make sure that the CO₂ cylinder recess is directed towards the top of the lifejacket.
- 9.23 Put a new sealing gasket in the recess in the inflation mechanism around the valve stem.
- 9.24 Attach the chrome cap nut to the valve stem torque loading to 40 lb/in.f.
- 9.25 Attach the battery operating lanyard to the cord loop between the beaded handle (operating knob for Series 4) and the inflation mechanism lever.
- 9.26 Close the cover around the inflation mechanism.
- 9.27 Close the pouch around the folded lobe, joining the Touch-and-close fasteners.
- 9.28 Put a new sealing gasket into the inflation mechanism cylinder recess. Make sure it lies flat at the bottom of the recess.
- 9.29 (Series 1 3 only) Attach the beaded handle to the press fasteners on the outside of the pouch.
- 9.30 (Series 4 only) Insert the end of the operating knob into the docking tube inside the pouch.
- 9.31 Make sure that the inflation mechanism is in the locked position and the operating lanyard is not under tension.
- 9.32 Put the threaded end of the cylinder down through the elastic loop above the operating mechanism.
- 9.33 Attach the cylinder into the inflation mechanism, torque loading to 40 lb/in.f.
- 9.34 Fold the left stole lobe as shown at Fig 21.
- 9.35 Close the left side of the pouch around the folded stole.
- 9.36 Tie one length of breaking thread through the eyelets 18 cm up from the bottom of the pouch.
- 9.37 Fold and stow the spray shield as shown at Fig 22, 23, 24, 25 and 26.



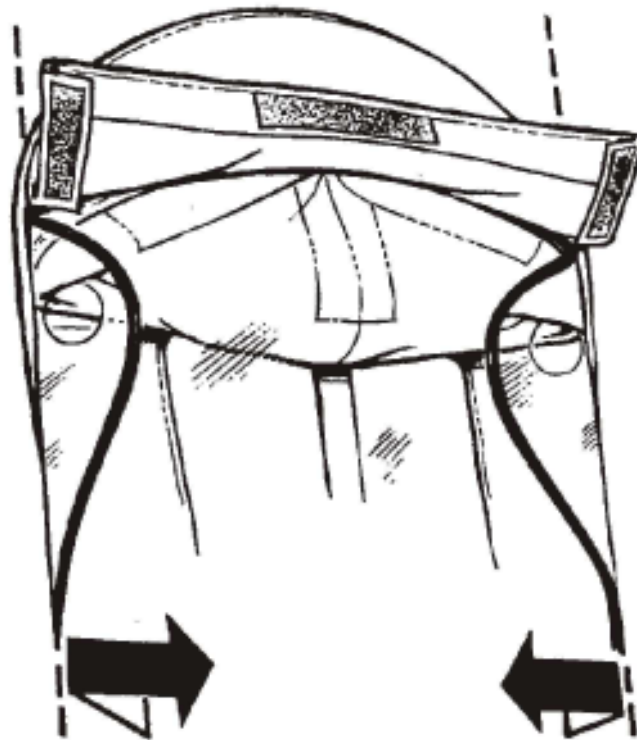
FOLDING LEFT STOLE LOBE
FIG 21



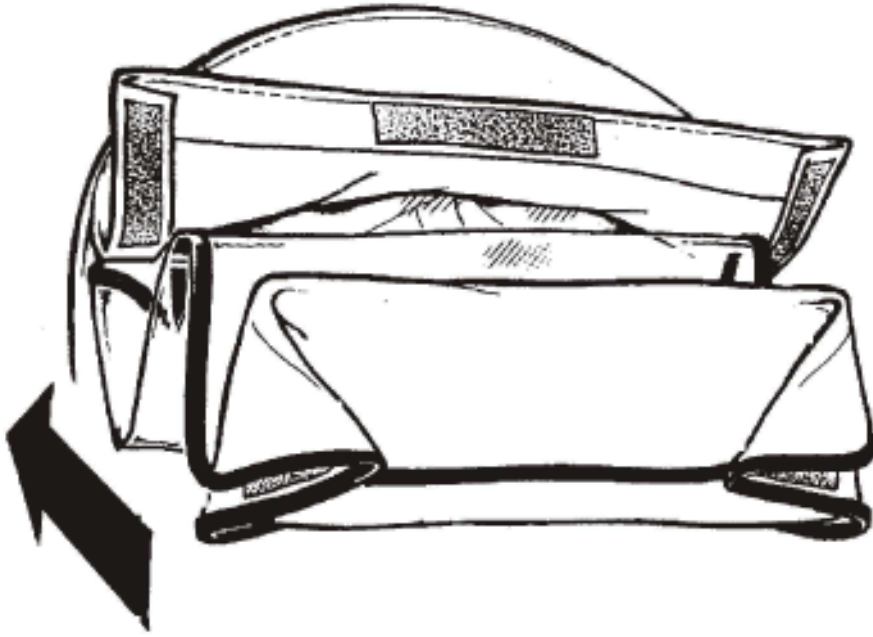
ATTACH PRESS FASTENERS ON SPRAY SHIELD TO
CORRESPONDING FASTENERS ON POUCH SERIES 1-3
(SERIES 4 IS STITCHED ON)
FIG 22



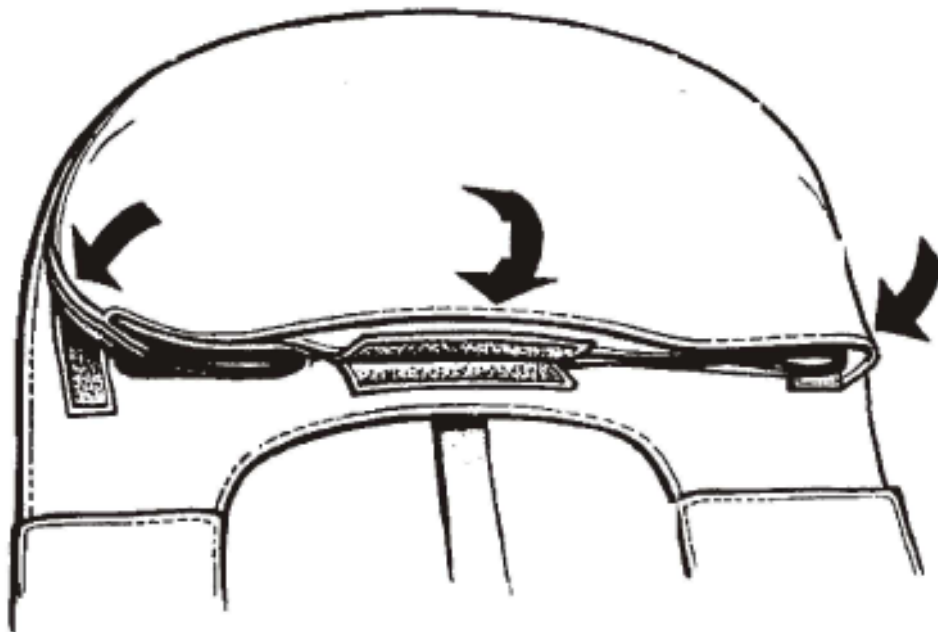
FOLD CANOPY OF SPRAY SHIELD INTO POUCH RECESS
FOLLOWING POUCH PROFILE
FIG 23



FOLD VISOR TO WIDTH OF POUCH
FIG 24



FOLD SPRAY SHIELD INTO POUCH RECESS
FOLLOWING THE PROFILE OF THE POUCH
FIG 25



SECURE POUCH CLOSURE FLAP IN POSITION
BY MATING CORRESPONDING TOUCH-AND-CLOSE FASTENERS
FIG 26

10 STORAGE

- 10.1 The lifejacket shall be stored in a well ventilated room. It shall not be subjected to extremes in temperatures (exceeding +70°C or below -40°C, extended periods of bright sunlight, hydrocarbon oil fumes, oils, grease or concentrated ozone. The lifejacket shall always be dry when stored.
- 10.2 Provided that the storage conditions are satisfactory, the lifejacket may remain stored between maintenance periods.

THIS PAGE INTENTIONALLY BLANK

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

11 SPARE PARTS

The following replacement parts may be ordered direct from the manufacturer at the address below.

When ordering, please quote the part number, description and quantity required.

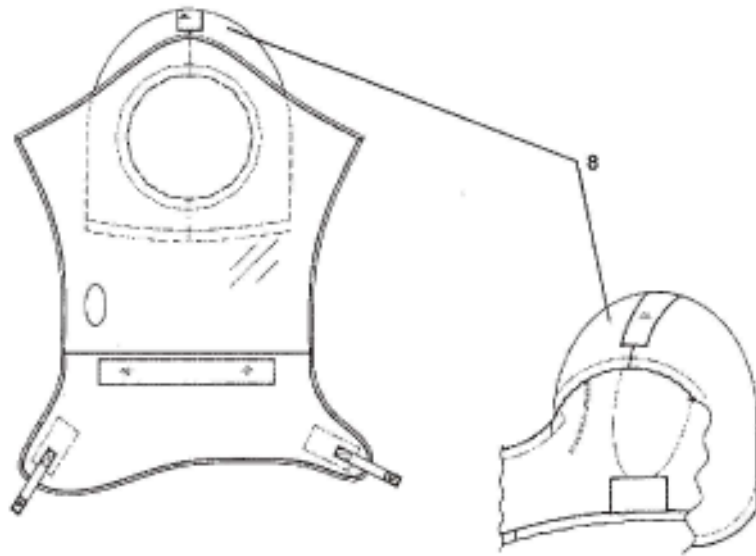
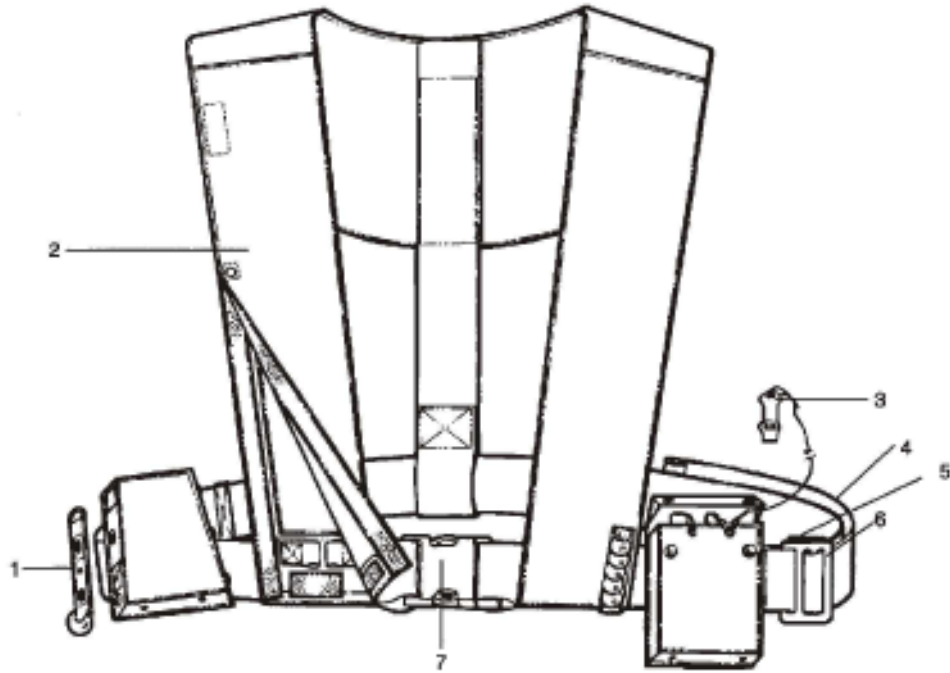
SALES Department (BASE Ltd)
 Beaufort Air-Sea Equipment Limited
 Beaufort Road,
 BIRKENHEAD
 Merseyside, L41 1HQ

ITEM No.	PART No. DRAWING No.	DESCRIPTION
1	RN 20	'D' Ring, matt, black, 12 mm
2	A.323100	Pouch and Harness Assembly (Specify Series 1, 2 or 3)
	A.323104	Pouch and Harness Assembly Series 4.
	Spec.9056	Fabric, Cordura, Dyed black, coated with non-weldable PU nylon
3	WH 5	Whistle
4	WE 217	Webbing, 50 mm, black
5	BK 63A	Buckle, Girth adjustment 1 bar.
6	BK 63B	Buckle, Girth adjustment 2 bar
7	BK 84	Fastex SR40 Front fastening buckle
8	A.323101	Spray hood
	A.323100	Spray Shield Series 2 (Specify Spray Shield when ordering)
	Spec.8851	Fabric, fluorescent orange, acrylic impregnated to BASE 8872, (Spray Shield/Sprayhood)
9	FA 24	Retro-Reflective tape.
10	VA 119/1	Valve for oral inflation tube.
11	A.323100	Stole (Specify Series 1, 2 or 3)
	A.323104	Stole Series 4
	Spec.8926	Fabric, Polyurethane coated, dyed Spanish Yellow, Fire Retardant Fabric
12	BU 17	Lamp filament
13	BT 36	McMurdo LJ1 Battery & Lamp Assembly
14	ME 80/5	Bottom gasket
15	VA 83/2	Schrader valve
16	CL 118	CO ₂ Cylinder
17	ME 75/1	Cylinder Gasket
18	ME 80/4	Mechanism Top Gasket
19	ME 80/6	Chrome Cap Nut
20	ME 75	Inflation Mechanism Type 8
21	WE 213	Webbing 20 mm black
22	KB 3	Operating knob (Series 4)
23	C.2201	Mechanism Protection Cover
24	TH 26	Thread, black, metric 36 polyester.
25	CO 100	Cord, No. 2, black

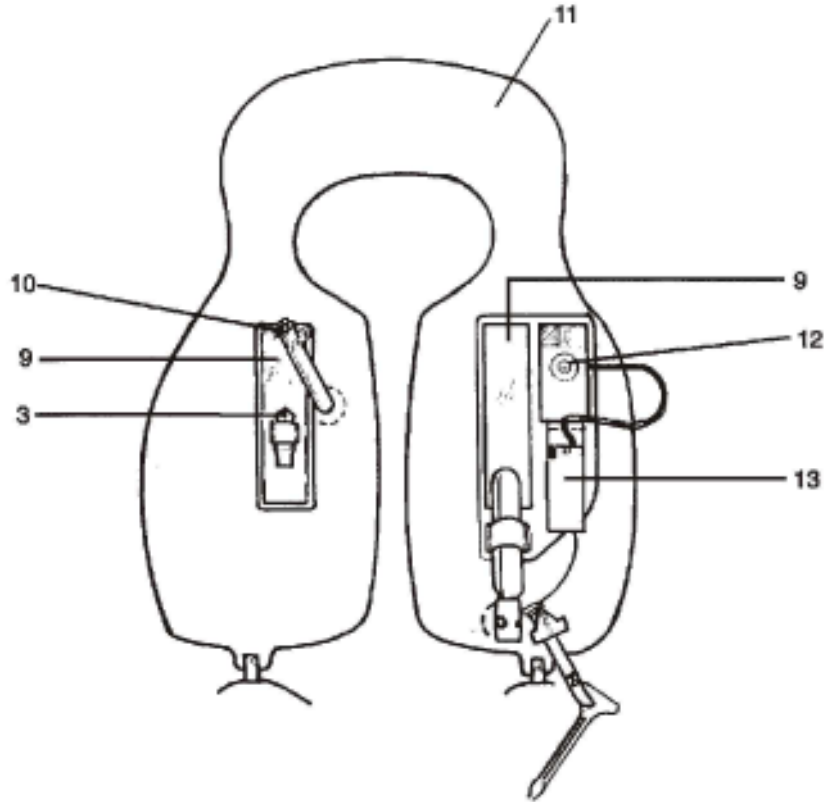
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

ITEM No.	PART No. DRAWING No.	DESCRIPTION
26	EL 4	Elastic, 25 mm, black
27	EL 9	Elastic, 6 mm, black
28	EY 41	Eyelet
29	FT 121	Touch-and-close fastener hook 20 mm
30	FT121/1	Touch-and -close fastener loop 20 mm
31	FT142	Touch-and-close fastener hook 50 mm
32	FT143	Touch-and-close fastener loop 50 mm
33	FT 54	Press fastener, four part
34	WE 213	Webbing, nylon, black 18 mm width to BASE 5048
35	WE 241/1	Tape, knitted nylon, 25 mm width, black
36	HE 1/1	Heliograph, 50 mm c/w pouch
37	HU 19	Knob housing
38	BASE 5001	Adhesive solution
39	C.2155	Test adaptor
40	B.1727	Pressure regular box
41	MN 5	Manometer (or local manufacture)
42	D.2840	'T' Junction
43	WE 254	Webbing, polyester, 50 mm wide (Mk 28WB (Passenger))
44	WE 251	Webbing, polyester, 25 mm wide (Mk 28WB (Passenger))
45	BK 39 A+B	Buckle, stainless steel (Mk 28WB (Passenger))
46	HK 38	Lifeline hook
47	FA 25	Red & White check retro-reflective tape

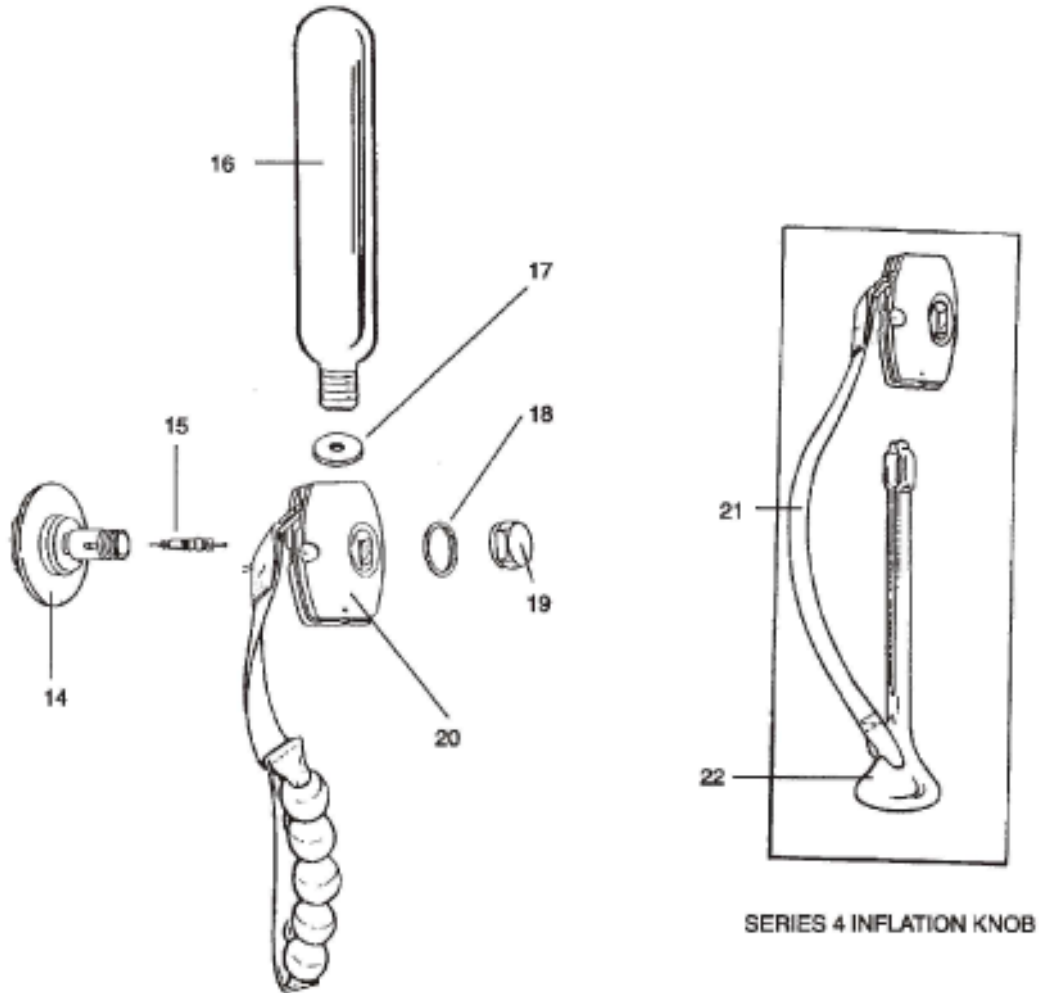
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



Mk 28 LIFEJACKET
FIG 27



INFLATABLE STOLE
FIG 28



INFLATION MECHANISM
FIG 29

THIS PAGE INTENTIONALLY BLANK

APPENDIX 1

ADHESIVE SOLUTION SPECIFICATION BASE 5001 (e.g. Dunlop 5001 & Tivoli Plus A4025)

1 GENERAL

- 1.1 Specification BASE 5001 is used for the general repair of coated fabrics and the attachment of moulded components. The adhesive comprises two components:

Component A Adhesive
Component B Accelerator

2 SHELF LIFE

- 2.1 Component A has a maximum life of 12 months when stored in temperatures between 51C and 250C. Component B has a storage life similar to Component A provided that the containers remain unopened and the Contents are not contaminated by water or contain any sediment or flocculent. The Component B container, once opened, is not to be re-stored. At the end of a working day, Component B remaining in broached containers is to be discarded.

3 MIXING PROCEDURE

- 3.1 Component A shall be given a good stir before use or extraction of the quantity required, and sediment shall be fully redispersed.
- 3.2 Component B shall be mixed with Component A only in clean, lacquered tins, polythene or glass containers; TINNED CONTAINERS SHALL NOT BE USED. Component A is supplied in clean, lacquered containers; Component B, in most cases, in glass bottles to premeasured quantities.
- 3.3 Water will impair the performance of the adhesive mixture and mixing shall not take place in wet or damp containers.
- 3.4 A level of 5% (weight/weight ratio) of Component B to Component A shall be used.
- 3.5 The ratio can be expressed as follows:

Component A	Component B
5 litres	220 grammes
1 litre	44 grammes
0.5 litre	22 grammes
0.25 litre	11 grammes

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 3.6 It is important that Component B is stirred into Component A until full homogeneity is assured.
- 3.7 It is recommended that a minimum of 15 minutes be allowed between completion of mixing and application of the solution.

4 MIXED LIFE

- 4.1 4 hours only, after which it shall be discarded.

5 APPLICATION

NOTE: Coated surfaces shall be lightly buffed and cleaned. Moulded components shall be well roughened and cleaned with a cloth, moistened, NOT SOAKED, with toluene, before the application of the adhesive.

- 5.1 The mixed solution shall be applied as follows to the two pieces of material using a suitable brush:

Apply the solution:

- (a) Three coats to each surface.
- (b) Allow each coat to become touch-dry before the subsequent coat is applied.
- (c) When the final coat is touch-dry, fit the two parts together.

6 DRYING TIME

- 6.1 Approximately 510 minutes, subject to environmental conditions.

7 OPEN TACK TIME

- 7.1 Approximately 1030 minutes, subject to environmental conditions.

8 CURE TIME

- 8.1 At least 3 days at normal room temperature before testing.

APPENDIX 2
INFLATABLE LIFEJACKET Mk 28A
(RETROFIT MODIFICATION ONLY OF THE Mk 28)

1 INTRODUCTION

- 1.1 The retrofit modification & the Mk 28 to a Mk 28A is a mandatory United Kingdom CAA Requirement or as agreed between the operator and their appropriate Approval Authority.
- 1.2 The Mk 28 lifejacket shall be modified if used in conjunction with an Immersion Suit.
- 1.3 The lifejackets Mk 28A Series 1, 2 and 3 have been designed for use by Aircrew and the Series 4 by passengers of helicopter or fixed wing aircraft.
- 1.4 Modification kits will be available from 16th August 1993 and all lifejackets intended for use with Immersion Suits shall have the modification incorporated by 1st January 1994.
- 1.5 The main purpose of this modification is to increase the nominal buoyancy of the Mk 28 Lifejacket to make sure immersion suit compatibility as required by CAA Specification No. 19.

2 DESCRIPTION

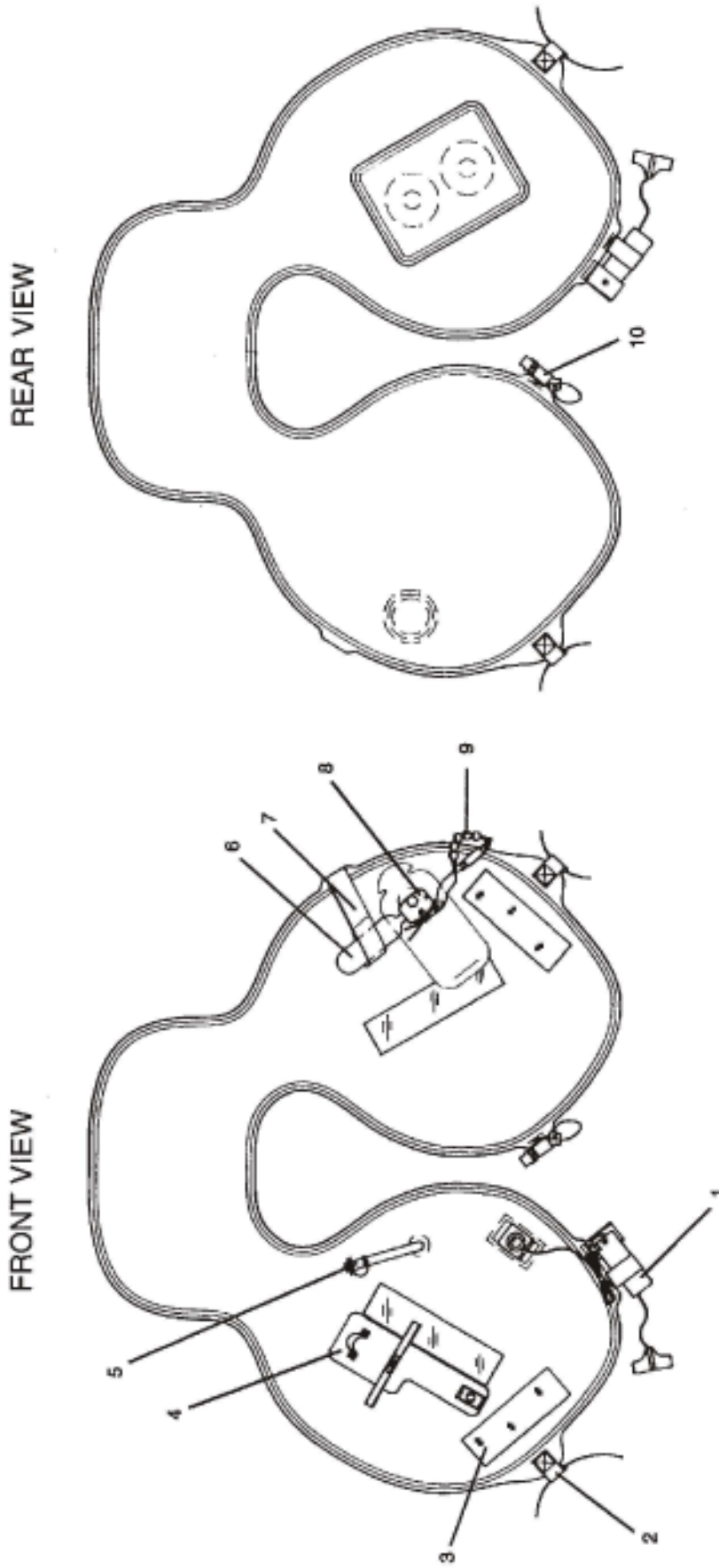
- 2.1 The lifejacket is identical to the Mk 28 Lifejacket Series 1 to 4 inclusive, apart from the following:
 - 2.1.1 The shape of the stole, ie. larger.
 - 2.1.2 The manual operating mechanism has a 60 gramme CO₂ disposable cylinder.
 - 2.1.3 An extra strip of pouch material has to be added to both pouch lobes to accommodate the larger size stole.
 - 2.1.4 A new spray shield.

3 MAINTENANCE SCHEDULE

- 3.1 The Mk 28A Lifejacket (Series 1 to 4 inclusive) shall be subject to the same maintenance schedule as that stated at Chapter 3 of this manual.

4 DISASSEMBLY

- 4.1 Disassemble the lifejacket in accordance with Chapter 4 of this manual.



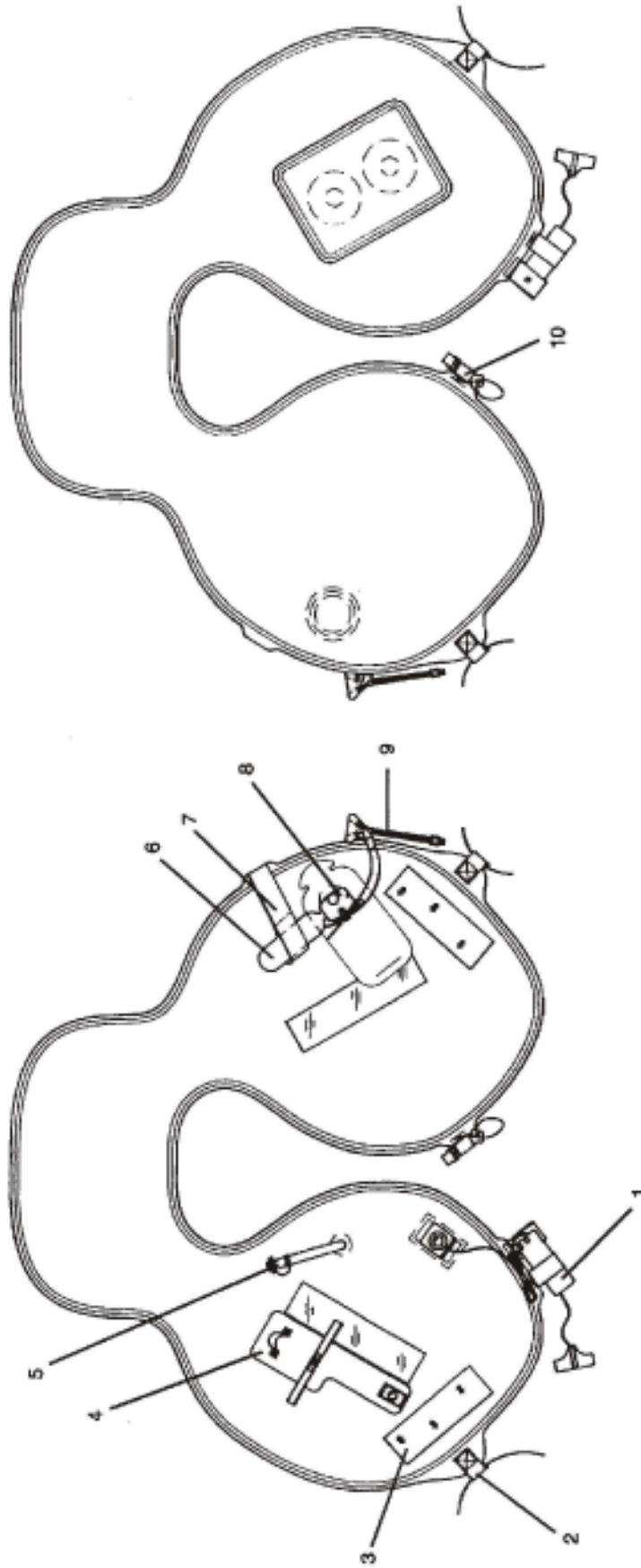
GENERAL ARRANGEMENT OF Mk 28A STOLE SERIES 1, 2 AND 3
FIG 1

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

GENERAL ARRANGEMENT OF Mk 28A STOLE SERIES 1, 2 AND 3
FIG 1

LEGEND

- 1 BATTERY AND LAMP ASSEMBLY
- 2 ANCHOR BECKETS
- 3 TOUCH-AND-CLOSE FASTENER
- 4 STROBE LIGHT PATCH (OPTIONAL)
- 5 ORAL INFLATION TUBE
- 6 CO₂ CYLINDER
- 7 CYLINDER LOOP
- 8 INFLATION MECHANISM
- 9 OPERATING MECHANISM HANDLE
- 10 WHISTLE



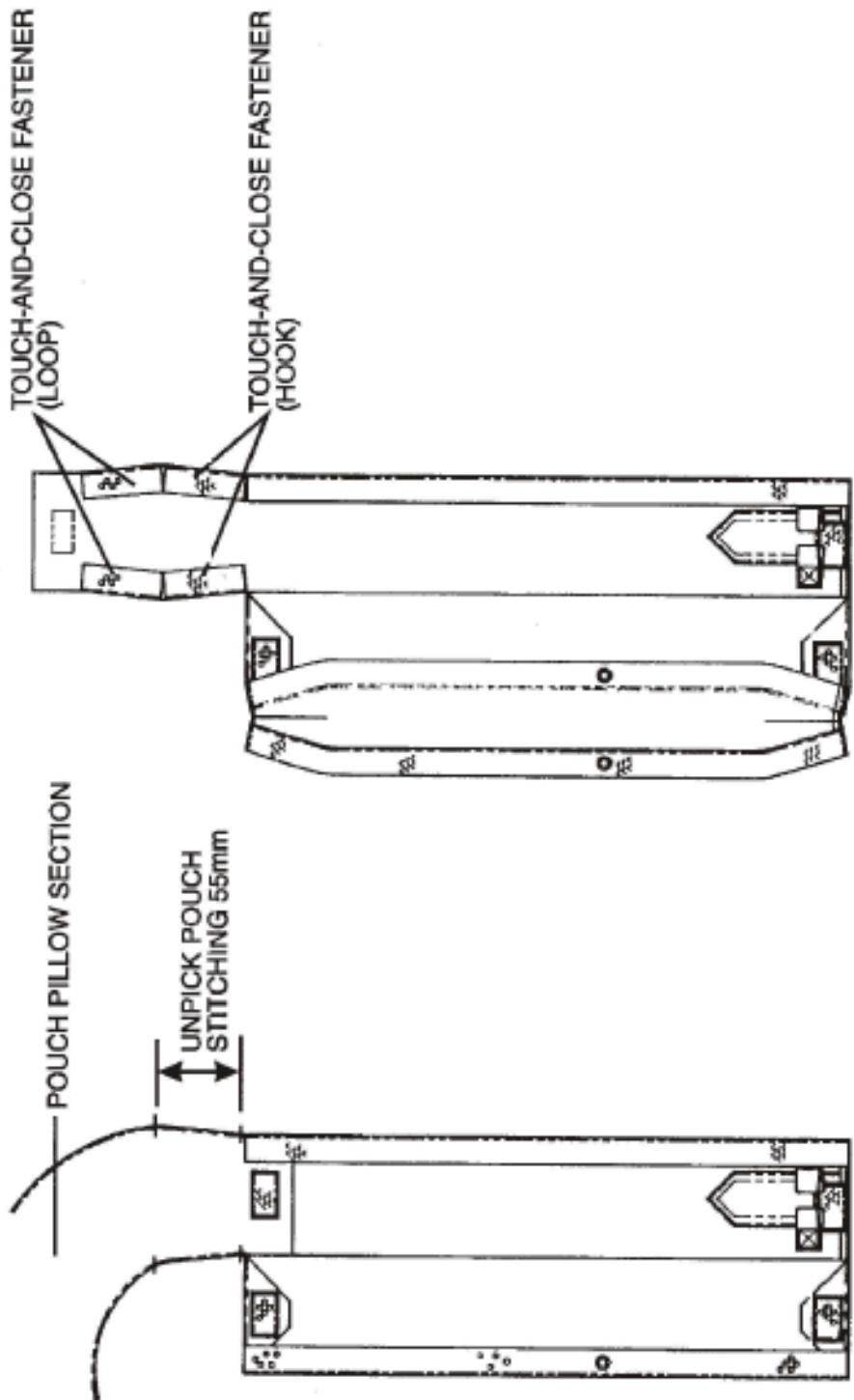
GENERAL ARRANGEMENT OF Mk 28A STOLE SERIES 4
FIG 2

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

GENERAL ARRANGEMENT OF Mk 28A STOLE SERIES 4
FIG 2

LEGEND

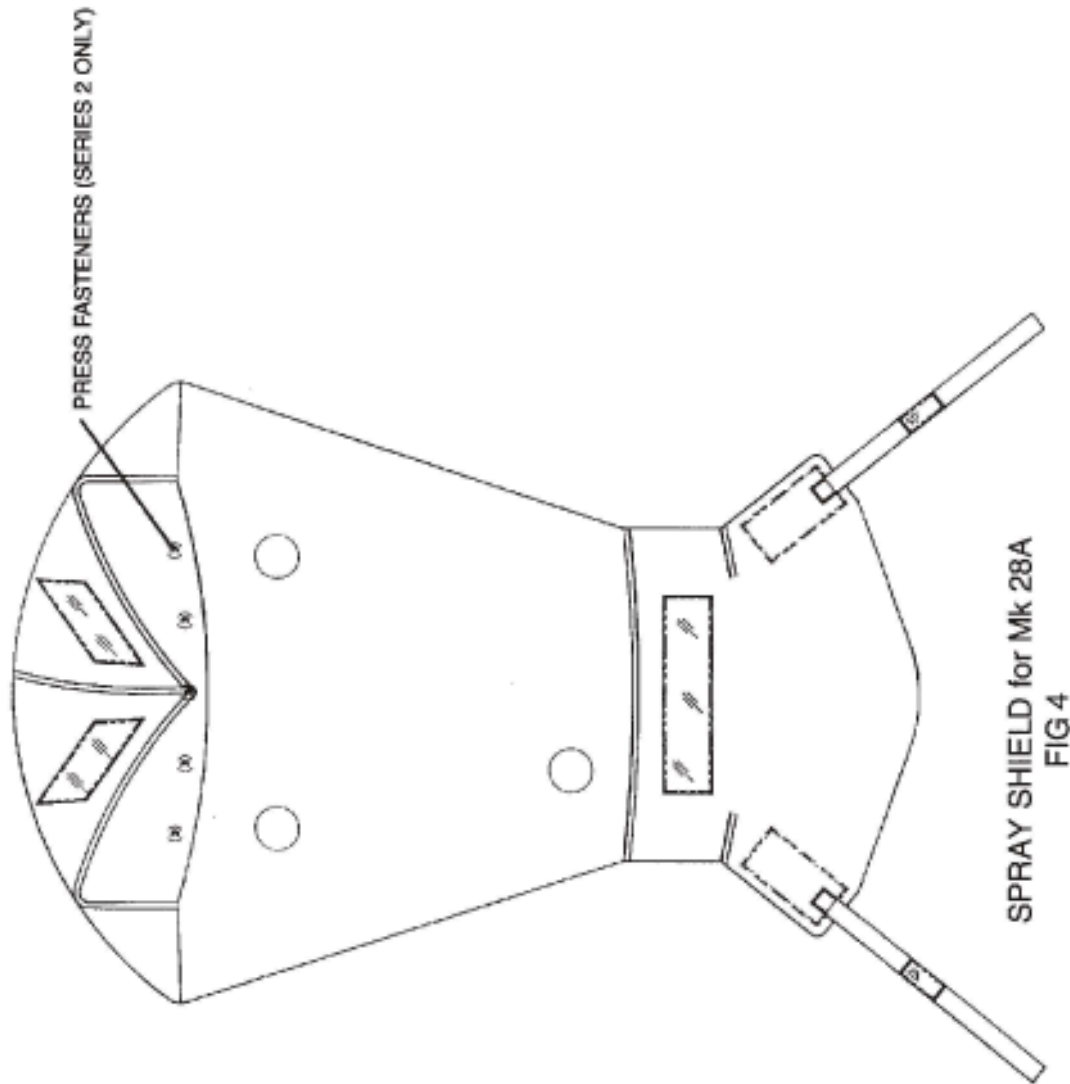
- 1 BATTERY AND LAMP ASSEMBLY
- 2 ANCHOR BECKETS
- 3 TOUCH-AND-CLOSE FASTENER
- 4 STROBE LIGHT PATCH (OPTIONAL)
- 5 ORAL INFLATION TUBE
- 6 CO₂ CYLINDER
- 7 CYLINDER LOOP
- 8 INFLATION MECHANISM
- 9 OPERATING MECHANISM HANDLE
- 10 WHISTLE



LEFT SIDE OF POUCH
AS WORN
REPEAT ON RIGHT SIDE

LEFT SIDE OF POUCH
AS WORN
REPEAT ON RIGHT SIDE

MODIFY POUCH WITH EXTENSION (FOR Mk 28 A)
FIG 3



SPRAY SHIELD FOR Mk 28A
FIG 4

5 CLEANING

5.1 Clean the lifejacket in accordance with Chapter 5 of this manual.

6 INSPECTION

6.1 Inspect the lifejacket in accordance with Chapter 6 of this manual.

7 TEST PROCEDURE

7.1 Test the lifejacket in accordance with Chapter 7 of this manual.

8 REPAIRS

8.1 Any repairs undertaken shall be in accordance with Chapter 8 of this manual.

9 SEQUENCE OF OPERATION TO INCORPORATE Mk.28A

9.1 Modify the lifejacket (Refer to fig 3) as follows:

9.1.1 Unpick pouch stitching, both side of upper pouch pillow section 55 mm long.

9.1.2 Oversew raw edge stitching following unpicking.

9.1.3 Attach touch-and-close fastener as shown at Fig 3 using single row stitching backtack a minimum of 25 mm from each end.

9.2 Spray shield replacement Mk 28 Series 4

9.2.1 Open the pillow section of the pouch using the touch-and-close fastener. Fully open out the spray shield.

9.2.2 From the sewn attachment point of the spray shield, measure up 25 mm and mark using a chinagraph pencil.

9.2.3 Using a sharp pair of scissors, cut away the existing spray shield and dispose of accordingly.

9.2.4 Select the replacement spray shield assembly A.336103, Series 4.

9.2.5 Stitch the new spray shield to the fabric hinge attached to the pouch.

9.2.6 Stitch together using a single row of lockstitch to BS 3870 Part 1, No 301. All ends of stitching shall be back sewn 25 mm.

9.2.7 Fold the spray shield in concertina form and pack it into the pillow section as given in Chapter 9 of this manual.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 9.3 Modify the stole as follows:
- 9.3.1 Remove the existing Mk 28 Stole from the pouch by carefully cutting the retaining cords.
- NOTE: Make sure that the correct replacement inflatable stole is selected.
- 9.3.2 Select the replacement modified Mk 28A inflatable stole.
- CAUTION: MAKE SURE THE STOLE IS NOT TWISTED INSIDE THE PILLOW SECTION OF THE POUCH.
- 9.3.3 Put one end of the inflatable stole through, and out of the pillow section of the pouch.
- 9.3.4 Note the position of the black webbing loops at the bottom of the stole lobes.
- 9.3.5 Note the position of the black webbing loops at the bottom of the pouch lobes.
- 9.3.6 Attach the stole webbing loops to the pouch webbing loops. The webbing loops shall be tied tightly together using cord CO 100 and the knots stitched through by hand using Thread TH 153.
- 9.3.7 Remove the inflation mechanism from the existing stole and attach the inflation mechanism to the new stole. Replace all gaskets and attach new cylinder CL 149 to the mechanism as given at Chapter 9 of this manual.
- 9.3.8 Remove the whistle from the old stole and attach to the new stole in the position provided.
- 9.3.9 Remove the battery and lamp assembly from the old stole and attach to the new stole as given at Chapter 9 of this manual.
- 9.4 Spray shield replacement Mk 28 Series 1 - 3
- 9.4.1 For Mk 28 Series 1 and 3 remove the balaclava hood and replace with new assembly.
- 9.4.2 For Mk 28 Series 2, remove the spray shield from the pouch and attach new spray shield A.336103, using the press fasteners provided.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

10 PACKING THE LIFEJACKET

10.1 Using a laundry marker write in the letter A below the printed Wk 2W label on the pouch to indicate that the lifejacket has been modified.

10.2 Repack the stole into the pouch as given in Chapter 9.

11 SPARE PARTS

PARTNo.	ITEM	APPLICATION
A.3361101	Stole for Mk 28A conversion.	Series 1, 2 and 3 only
A.336100	Stole for Mk 28A conversion.	Series 4 only
A.336103	Spray shield (State Series)	Series 2 only
A.336103	Spray shield (State Series)	Series 4 only
A.336102	Pouch modification kit	Series 1 to 4 inclusive
	Press fasteners on Series 2 only	
A.3361104	Balaclava Hood	Series 1 & 3

APPENDIX 3

ATTACHMENT AND PACKING OF THE CROTCH STRAP

1 INTRODUCTION

- 1.1 Appendix 3 describes the attachment and packing of the crotch strap.
- 1.2 The crotch strap is non mandatory and is optional as a customer requirement.

2 REASON

- 2.1 The reason for the introduction of the optional crotch strap is to improve the lifejackets performance.
- 2.2 The lifejacket while in use, may ride up the torso of the wearer.
- 2.3 The benefits of this implementation is enhanced performance of the lifejacket, ie. an improvement of the positioning of the lifejacket on the wearer.

3 MANPOWER

- 3.1 Man hours required to accomplish the attachment is estimated at:
 - 3.1.1 0.2 hrs. assembly per lifejacket
 - 3.1.2 0.1 hrs. folding and packing.

4 MATERIALS

- 4.1 The parts required to attach the crotch strap are as follows:
 - 4.1.1 Touch-and-close Fastener, BS.7271, Pt No. FT121
 - 4.1.2 Polyester Thread, Metric 36, Black, Pt No. TH26
 - 4.1.3 Crotch Strap Assembly, Pt No. C.2174

5 TOOLING

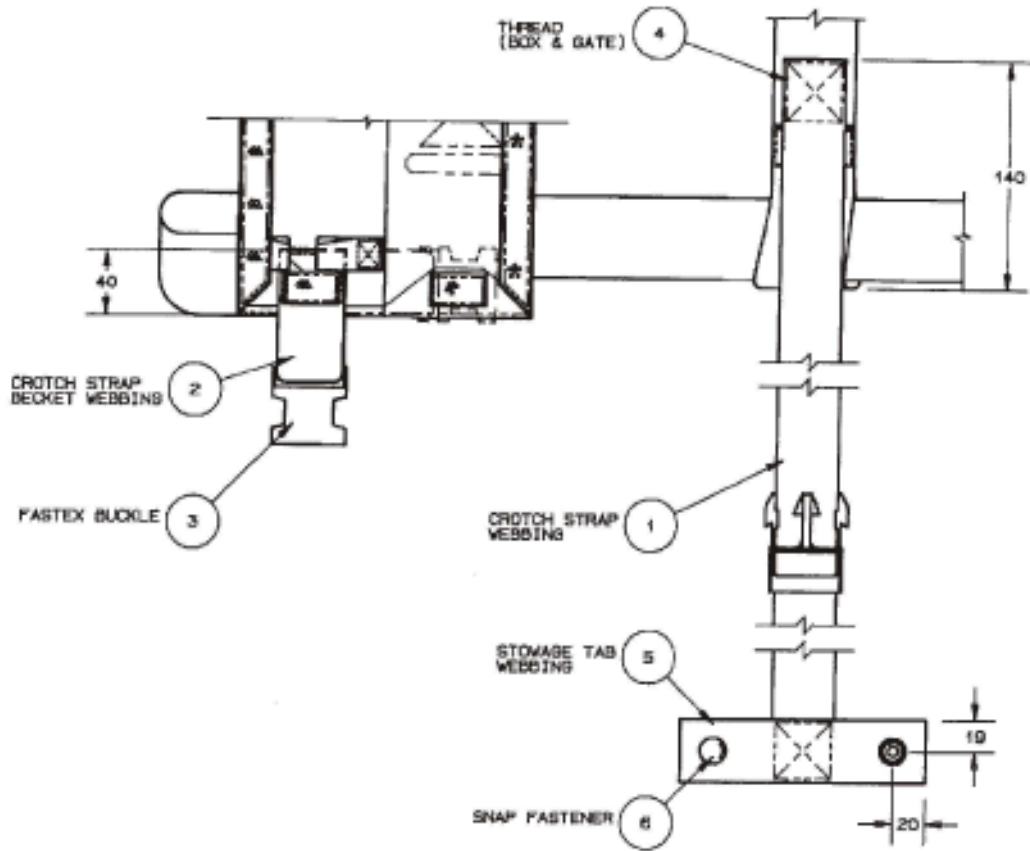
- 5.1 No special tooling is required to attach the crotch strap.

6 ACCOMPLISHMENT INSTRUCTIONS

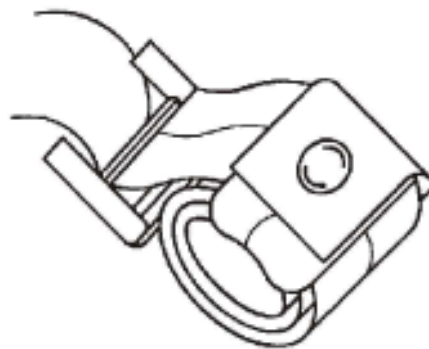
NOTE: All references to left, right, back and front are relative to the wearer.

- 6.1 Lay the lifejacket down on a flat clean surface.
- 6.2 Carefully unfasten the Touch-and-close fastener on the right hand side of the pouch.
- 6.3 Detach the cord tie attaching the stole to the pouch at the bottom right hand side.
- 6.4 Move the stole to one side and keep clear from the pouch.
- 6.5 Refer to Fig 1 and using a chinagraph pencil, mark the positions for the attachment of the assembly onto the backstrap and inner right side of the pouch.
- 6.6 Carefully unpick the hook Touch-and-close fastener (20 mm x 40 mm) from inside the right hand pouch.
- 6.7 Using a machine lockstitch type 301, with black polyester thread, metric 36, proceed as follows:
 - 6.7.1 Attach the free end of item 1, crotch strap webbing to the marked position on the back strap with box and gate stitching in a 35 mm square.
 - 6.7.2 Stitch item 2, crotch strap becket webbing with buckle attached to the marked position, centrally within the right side pouch, using box and gate stitching.
 - 6.7.3 Reattach the hook Touch-and-close fastener removed in Para 6.6, or if damaged replace with a new piece 20 mm x 40 mm.
- 6.8 Complete the full maintenance as specified in this manual.
- 6.9 Fold and pack the lifejacket as specified in Chapter 9.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



POSITION OF CROTCH STRAP
FIG 3



VIEW OF FREE END
ROLLED AND STOWED

ROLLED AND STOWED CROTCH STRAP
FIG 2

THIS PAGE INTENTIONALLY BLANK

APPENDIX 4

ATTACHMENT AND POSITION OF STROBE LIGHT PATCH

1. INTRODUCTION

- 1.1 Appendix 4 describes the attachment and position of the strobe light patch for the Firefly ACR/4G Strobe Light.
- 1.2 The strobe light pocket is non mandatory and is optional as a customer requirement.

2. REASON

- 2.1 The reason for the introduction of the optional strobe light patch is enhanced performance of the lifejacket, ie an improvement of locating the survivor at sea.

3. MANPOWER

- 3.1 Man hours required to accomplish the attachment of the strobe patch is estimated at:
 - 3.1.1 0.2 hrs assembly per lifejacket and curing time.

4. MATERIALS

- 4.1 The parts required to attach the strobe light patch are as follows:
 - 4.1.1 Strobe Light Patch, Pt No. C.2269

5. TOOLING

- 5.1 No special tooling is required to attach the strobe light patch.

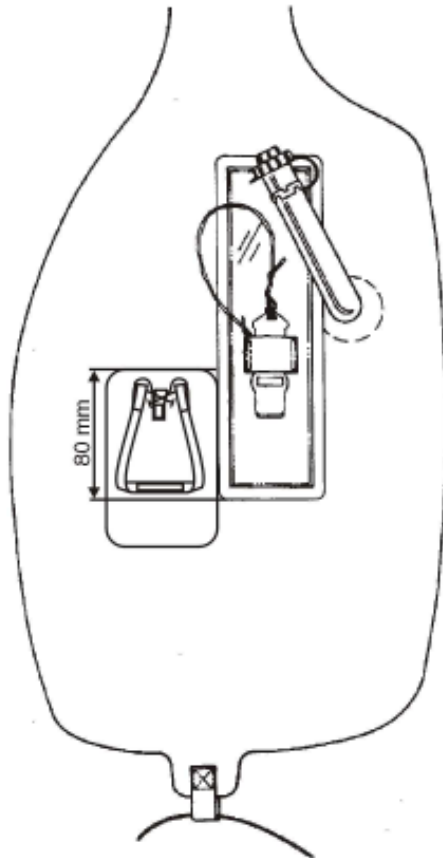
6. ACCOMPLISHMENT INSTRUCTIONS

NOTE: All references to left, right, back and front are relative to the wearer.

- 6.1 Lay the lifejacket down on a flat clean surface.
- 6.2 Carefully unfasten the Touch-and-close fastener on the right hand side of the pouch.
- 6.3 Detach the cord tie attaching the stole to the pouch at the bottom right hand side.
- 6.4 Move the stole to one side and keep clear from the pouch.

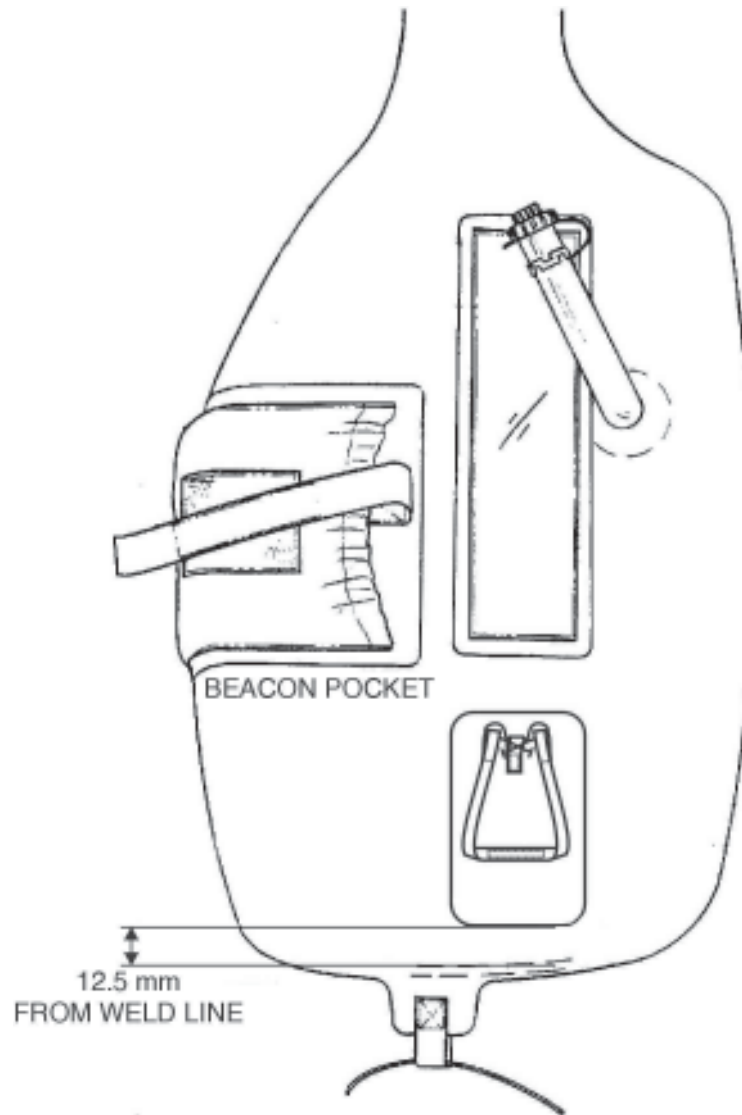
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 6.5 Refer to Fig 1 and 2, and using a chinagraph pencil, mark the positions for the attachment of the assembly onto the pouch.
- 6.6 Attach the assembly as specified at Appendix 1 of this manual.
- 6.7 Complete the full maintenance as specified in this manual.
- 6.8 Fold and pack the lifejacket as specified in Chapter 9.



ATTACHMENT POSITION FOR PASSENGER LIFEJACKETS
FIG 1

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



ATTACHMENT POSITION FOR CREW LIFEJACKETS
FIG 2

THIS PAGE INTENTIONALLY BLANK

APPENDIX 5

INFLATABLE LIFEJACKET M1k 28WB (PASSENGER) (RETROFIT MODIFICATION ONLY OF THE M1k 28 Series 4)

1 INTRODUCTION

1.1 The retrofit modification of the Mk 28 Series 4 to a Mk 28WB (Passenger) is a mandatory United Kingdom CAA Requirement or as agreed between the operator and their appropriate Approval Authority. This is an alternative to the Mk 28A Series 4 (passenger) retrofit modification.

1.2 The Mk 28 lifejacket shall be modified if used in conjunction with an Immersion Suit.

1.3 The lifejacket Mk 28WB (Passenger) has been designed for use by passengers of helicopter or fixed wing aircraft.

1.4 Modification kits will be available from 13th March 1995 and all lifejackets intended for use with Immersion Suits shall have the modification incorporated by the 30th September 1995.

1.5 The main purpose of this modification is to enhance the self righting capabilities of the Mk 28 Lifejacket to make sure compatibility when worn in conjunction with an immersion suit as required by CAA Specification No 19.

2 DESCRIPTION

2.1 The lifejacket is identical to the Mk 28 Lifejacket Series 4, apart from the following:

2.1.1 The inflated attitude of the stole has been modified to give enhanced performance by the repositioning and addition of the stole tie down webbing loops.

2.1.2 Touch-and-close fastener loop has been added to each front stole lobe for attachment of the sprayshield upon deployment.

2.1.3 The waistbelt harness assembly has been replaced by a twin adjustment strap arrangement with a positive closure front buckle linesman type.

2.1.4 Addition and relocation of stole tie down webbing loop points on the pouch.

2.1.5 Extension of pouch flaps to ease packing and attachment of

ancillary equipment.

2.1.6 Touch-and-close fastener added between front stole lobes.

NOTE: This modification shall include fitment of single crotch strap as mandatory, refer to Appendix 3.

3 MAINTENANCE SCHEDULE

3.1 The Mk 28WB (Passenger) Lifejacket shall be subject to the same maintenance schedule as that stated at Chapter 3 of this manual.

4 DISASSEMBLY

4.1 Disassemble the lifejacket in accordance with Chapter 4 of this manual.

5 CLEANING

5.1 Clean the lifejacket in accordance with Chapter 5 of this manual.

6 INSPECTION

6.1 Inspect the lifejacket in accordance with Chapter 6 of this manual.

7 TEST PROCEDURE

7.1 Test the lifejacket in accordance with Chapter 7 of this manual.

8 REPAIRS

8.1 Any repairs undertaken shall be in accordance with Chapter 8 of this manual.

9 SEQUENCE OF OPERATION TO INCORPORATE Mk 28WB (Passenger)

9.1 Modify the pouch and harness as follows:

9.1.1 Make sure you have the correct items, ie.

9.1.1.1 Two pouch extensions

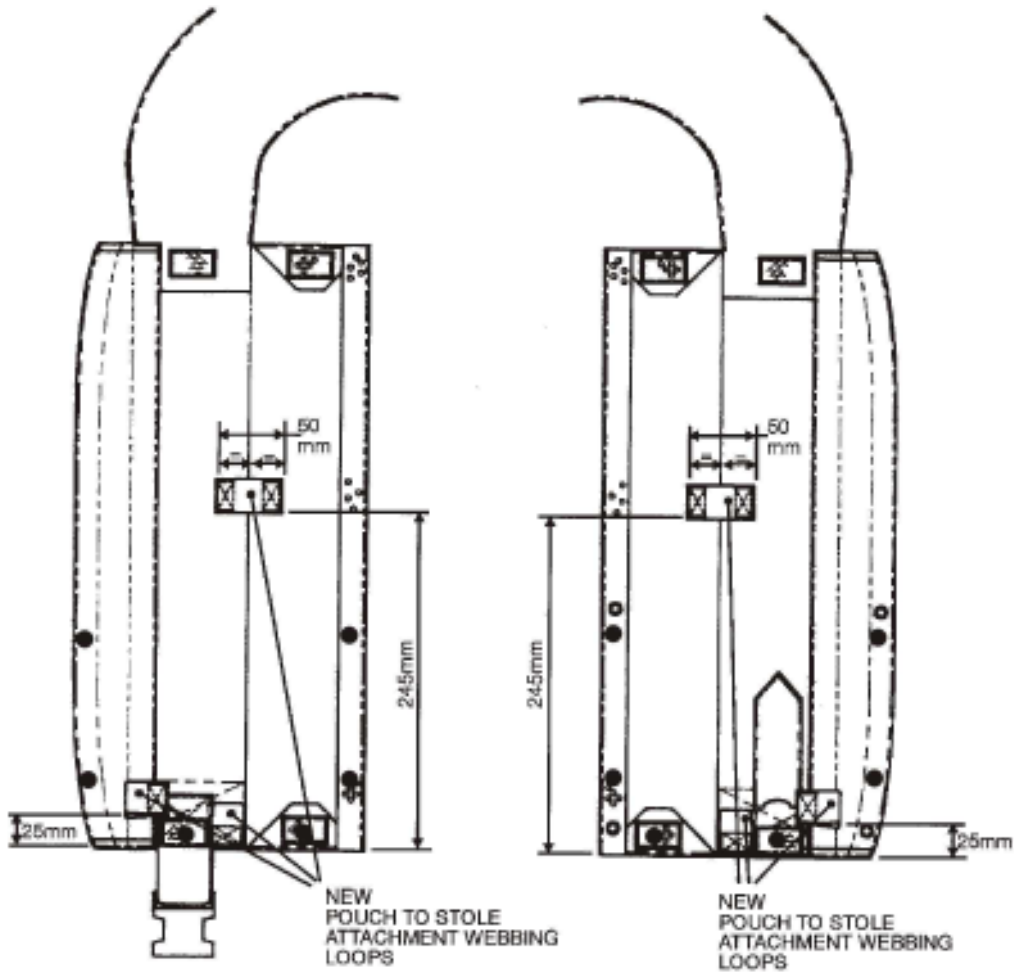
9.1.1.2 Six pouch attachment webbing loops (four 25 mm x 85 mm and two 25 mm X 50 mm)

9.1.1.3 harness assembly

9.1.1.4 adult label

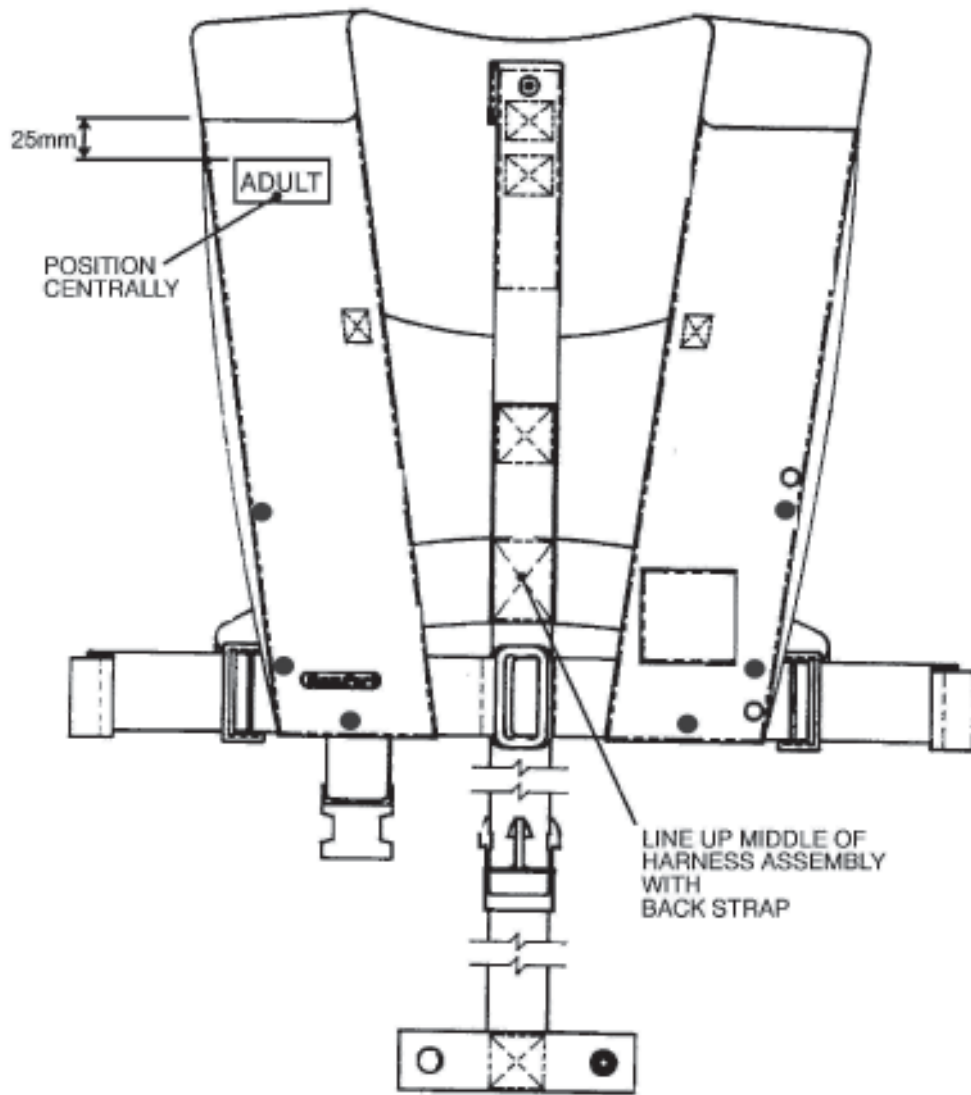
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 9.1.2 Unpick stitching from the bottom right of pouch retaining the waist harness. Remove stole attachment webbing loop (2).
- 9.1.3 If single crotch strap assembly is attached, remove from right pouch base by unpicking. Retain for replacement.
- 9.1.4 Unpick the manual inflation handle housing. Retain housing.
- 9.1.5 Remove left side pouch as detailed in Paragraph 9.1.2.
- 9.1.6 Pull detached waistbelt through the backstrap loop and discard of accordingly.
- 9.1.7 Make a mark on the pouch left and right inner sides for pouch to stole attachment webbing loop. (Refer Fig 1).
- 9.1.8 Select the pouch extension panels A.339004.
- 9.1.9 Stitch the new pouch extension to the left and right side of the pouch, to the rear pouch hinge section, bearing the hook Touch-and-close fastener. (Refer Fig 1).
- 9.1.10 Select a replacement harness assembly A.339004. Make a mark in the centre back of the webbing and put the webbing through the back strap loop. When central, stitch the back strap through the waist harness with a box and gate stitch. (Refer Fig 2).
- 9.1.11 Fold the right side of the waist harness as if in the worn position and line up the pouch bottom with the bottom of the waist harness webbing edge. When the pouch is folded, the inside pouch edge should be 60 mm from the outer buckle edge. (Refer Fig 3).
- 9.1.12 Make a mark of the pouch edges onto the webbing using a chinagraph pencil.
- 9.1.13 With the pouch open, stitch pouch back onto the waistbelt with a box and gate stitching as closely to the original stitch marks as possible.
- 9.1.14 Select the pouch tie down webbings for the right side, two off 25 mm x 85 mm and one off 25 mm x 50 mm. Fold in half to form a loop and stitch the 85 mm webbings to the bottom pouch area where marked using box and gate stitching.

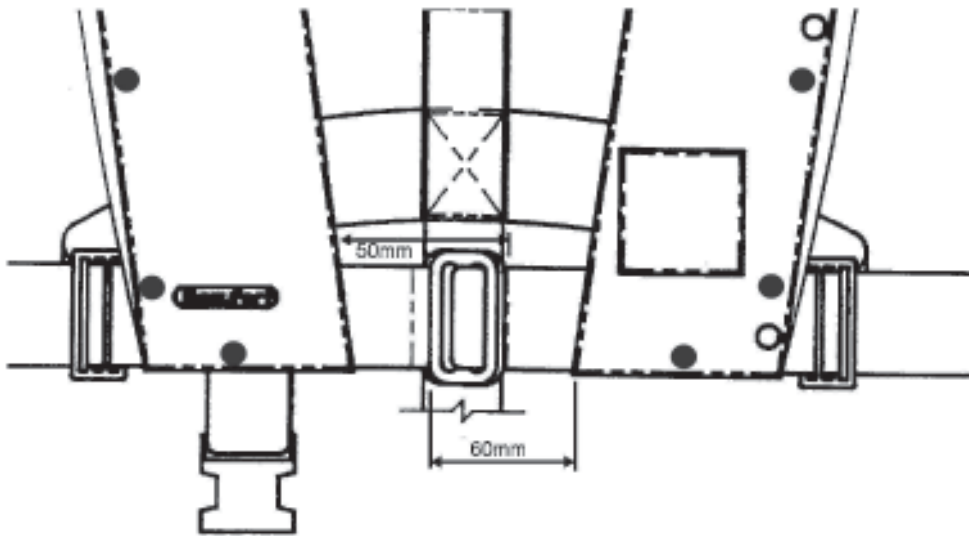


LEFT AND RIGHT POUCH EXTENSIONS
FIG 1

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



Mk 28WB (PASSENGER)
FIG 2

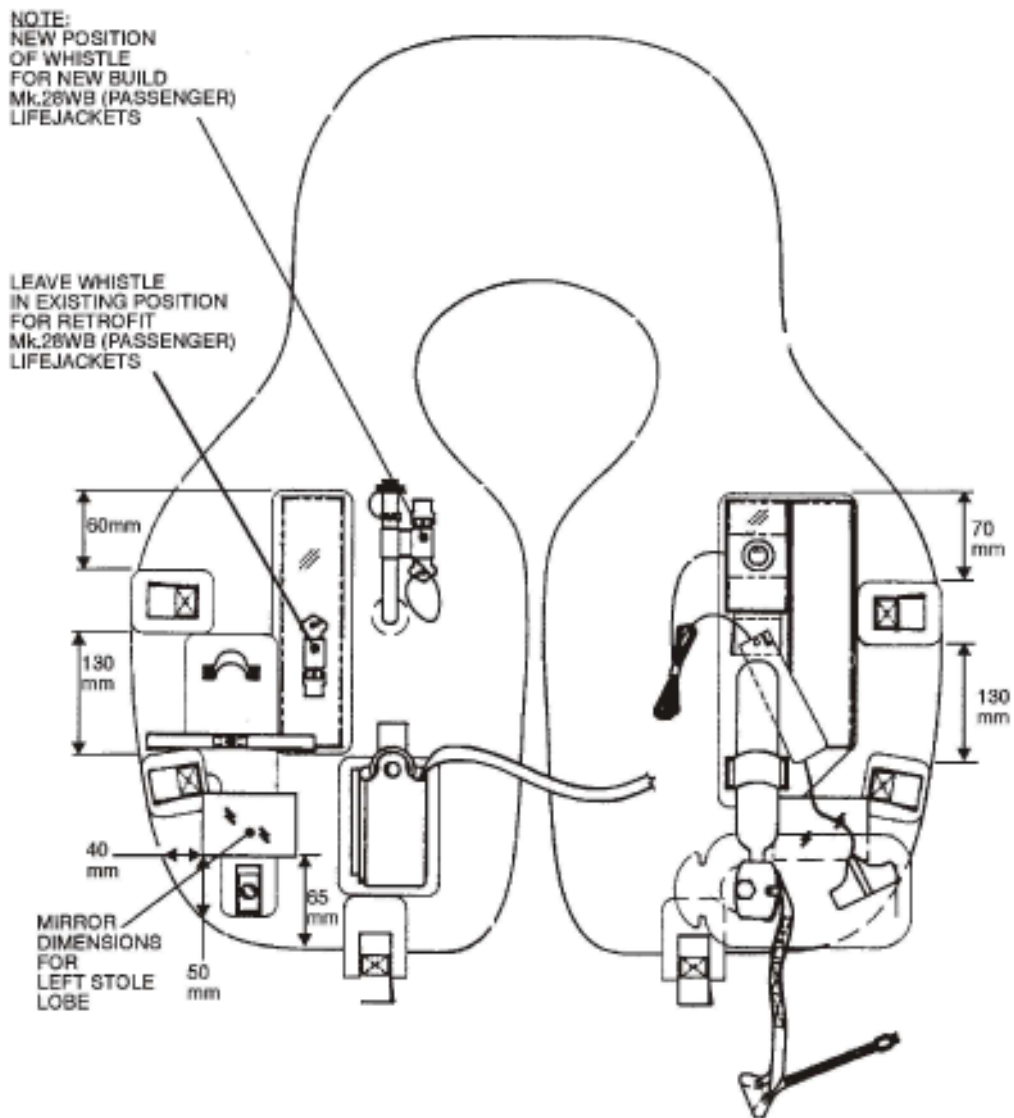


WAIST HARNESS POSITION
FIG 3

- 9.1.15 The 50 mm piece shall be stitched to the marks further up the pouch , as detailed in Paragraph 9.1.7. (Refer Fig 1)
- 9.1.16 Attach single crotch strap buckle retention webbing to inside pouch, where it can be stitched through pouch and harness. (Refer Appendix 3).
- 9.1.17 Bring to hand the left side waist buckle 3 bar link, put the pouch bottom and align with bottom webbing edge. The inside pouch edge should be 50 mm from the outer buckle edge. (Refer Fig 3). Make a mark of the pouch edges onto webbing using a chinagraph pencil.
- 9.1.18 With the left side pouch open, stitch pouch back onto the waistbelt with a box and gate stitching as closely to the original stitch marks as possible.
- 9.1.19 Select the pouch tie down webbings for the left side, two off 25 mm x 85 mm and one off 25 mm x 50 mm. Fold in half to form a loop and stitch the 85 mm webbings to the bottom pouch area where marked using box and gate stitching.
- 9.1.20 Reposition manual pull handle tunnel and restitch to pouch.

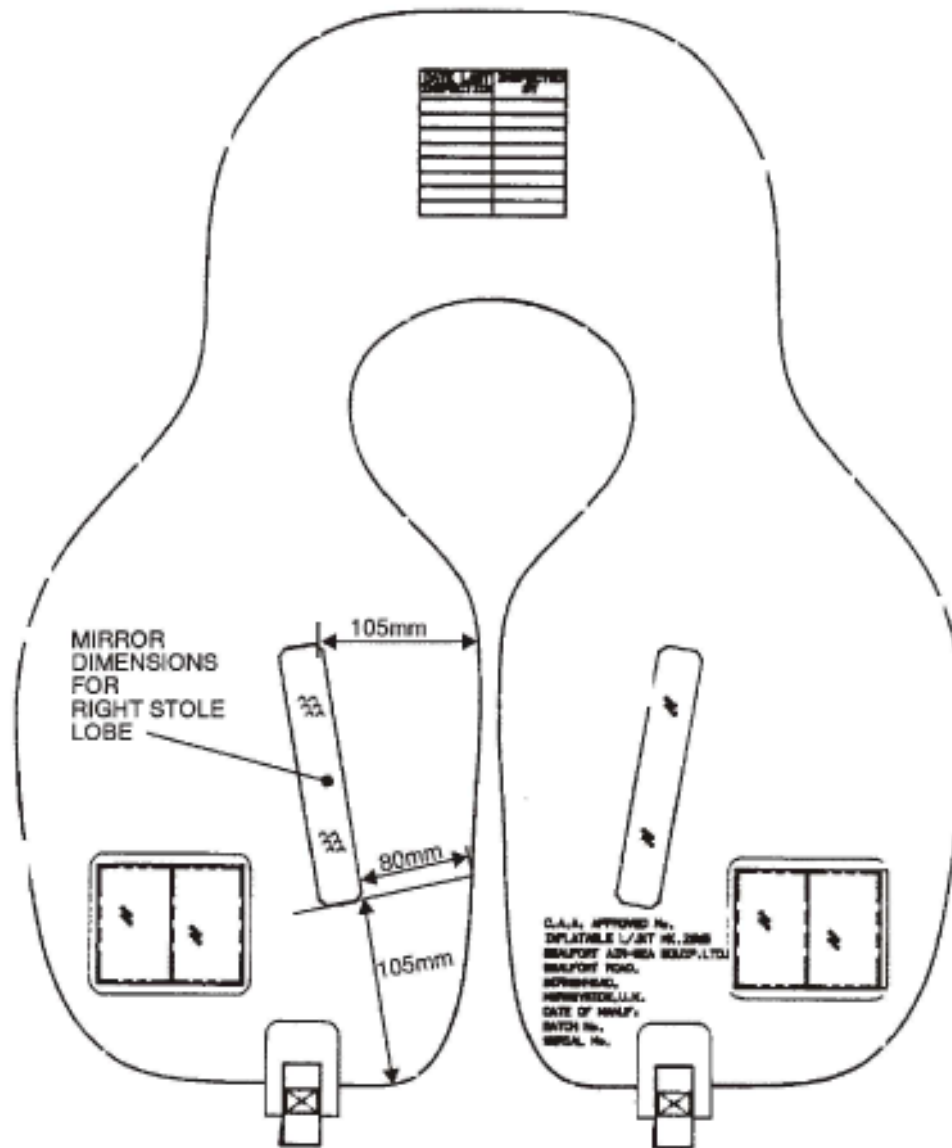
BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 9.1.21 Attach crotch strap as detailed in Appendix 3.
- 9.1.22 Attach the label to the pouch using a lockstitch sewing machine (BS.3870, Stitch Type 301) set to a pitch of not less than 9 and not more than 12 stitches per 25 mm (Refer Fig 2).
- 9.2 Modify the stole as follows:
 - 9.2.1 Remove the existing Mk 28 Stole from the pouch by carefully cutting the retaining cords.



STOLE TIE OFF WEBBING POSITIONS
FIG 4

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47



STOLE TOUCH-AND-CLOSE FASTENER POSITIONS
FIG 5

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 9.2.2 Make a mark detailing the attachment points for the location of the stole to pouch tie off patches, (6 off). (Refer Fig 4).
- 9.2.3 Carefully cut away existing tie off webbing points.
- 9.2.4 Make a mark for the location of the Touch-and-close fastener loop patches for sprayshield attachment, (2 off). (Refer Fig 5).

NOTE: On the right stole front panel; if it is the intention of the operator to attach a strobe light patch, refer to Appendix 4 prior to attaching the sprayshield attachment touch-and- close fastener.

- 9.2.5 Attach the patches as detailed in Appendix 1 of this manual.
- 9.2.6 Complete full maintenance as detailed in this manual.

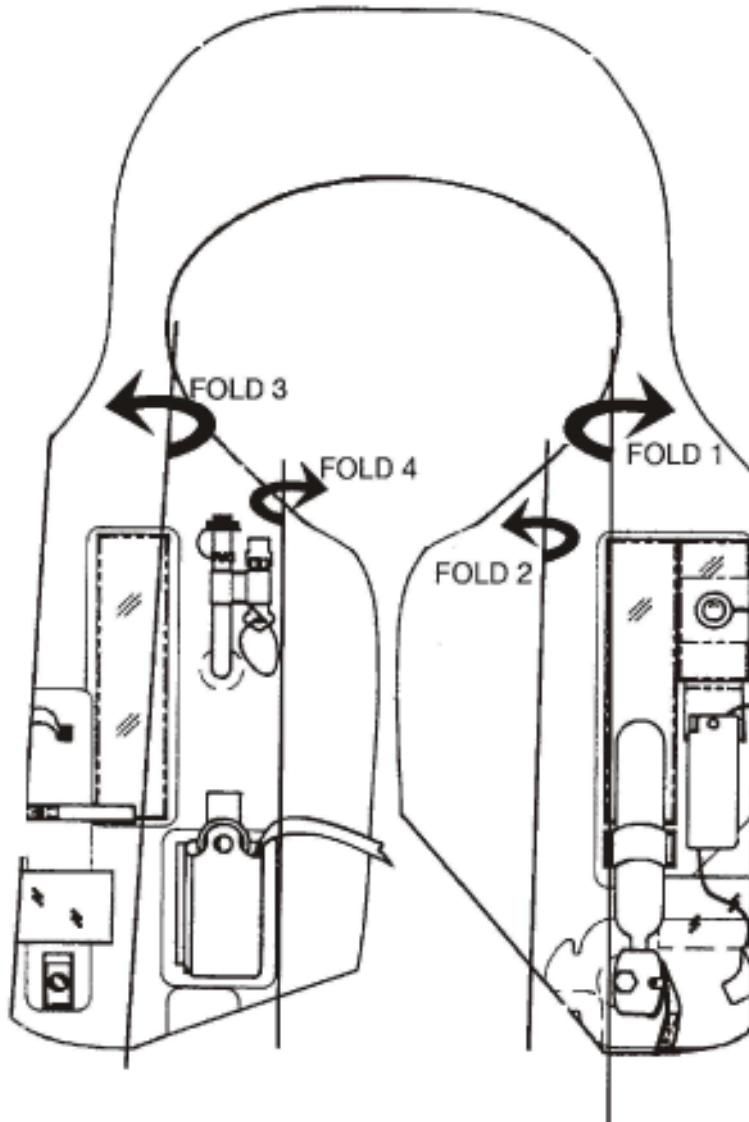
10 PACKING THE LIFEJACKET

- 10.1 Using a laundry marker write in the letters W13 below the printed Wk 28,' label on the pouch to indicate that the lifejacket has been modified.
- 10.2 Repack the stole into the pouch as given in Chapter 9.

NOTE: There are six stole/pouch anchor beackets instead of two and refer to Fig 6 for stole fold lines.

11 SPARE PARTS

PART No.	ITEM
A.339000	Mk 28WB (Passenger) (New Item)
A.339001	Stole (New Item)
A.339002	Pouch and Harness (New Item)
A.339003	Sprayshield (New Item)
A.339004	Retrofit Modification of Mk 28 Series 4
A.339005	Carcass stole



Mk 28WB (PASSENGER LIFEJACKET FOLD LINES
FIG 6

12 MODIFICATION TO MK28WB LIFEJACKET BACK STRAP FASTENER

- 12.1 To remove the Mk 28WB Lifejacket back strap touch and close fasteners.
 - 12.1.1 Mark the position of the touch and close hook fastener on the pillow section of the pouch using a chinagraph pencil.
 - 12.1.2 Using a sharp pair of scissors, carefully cut the stitching holding the hook fastener.
 - 12.1.3 Remove and discard the hook fastener. Remove all thread ends.
 - 12.1.4 Mark the position of the Touch-and-close loop fastener on the back strap using a chinagraph pencil.
 - 12.1.5 Using a sharp pair of scissors, carefully cut the stitching holding the loop fastener.
 - 12.1.6 Remove and discard the loop fastener. Remove all thread ends.
- 12.2 To replace the Mk 28WB Lifejacket back strap Touch-and-close fastener.
 - 12.2.1 Bring to hand the following replacement items:
 - 12.2.1.1 Touch-and-close loop fastener, FT 143 50 mm x 55 mm
 - 12.2.1.2 Touch-and-close hook fastener, FT 142 50 mm x 40 mm
 - 12.2.2 Put the Touch-and-close loop fastener in the marked position on the back strap.
 - 12.2.3 Stitch the Touch-and-close loop fastener. (Refer Chapter 8, Para 8.7).
 - 12.2.4 Adhere the Touch-and-close hook fastener to the pillow section of the pouch in the marked position. (Refer Chapter 8 Para 8.8).

THIS PAGE INTENTIONALLY BLANK

APPENDIX 6

INFLATABLE LIFEJACKET M1k 28WB (PASSENGER) ATTACHMENT AND POSITION OF LIFELINE AND POCKET

1 INTRODUCTION

- 1.1 Appendix 6 describes the attachment and position of the lifeline and pocket.
- 1.2 The lifeline is non mandatory and is optional as a customer requirement in conjunction with a Mk 28WB (Passenger) lifejacket.

2 REASON

- 2.1 The reason for the introduction of the lifeline is as an aid to the survivor or survivors to keep together as a group by linking together or attaching to a floating item.

3 MANPOWER

- 3.1 Man hours required to accomplish the attachment of the strobe patch is estimated at:
 - 3.1.1 0.2 hrs assembly per lifejacket and curing time.

4 MATERIALS

- 4.1 The parts required to attach the strobe light patch are as follows:
 - 4.1.1 Lifeline and pocket, Pt No. C.2312
 - 4.1.2 Polyester thread, Metric 36, Black, Pt No. TH26

5 TOOLING

- 5.1 No special tooling is required to attach the strobe light patch.

6 ACCOMPLISHMENT INSTRUCTIONS

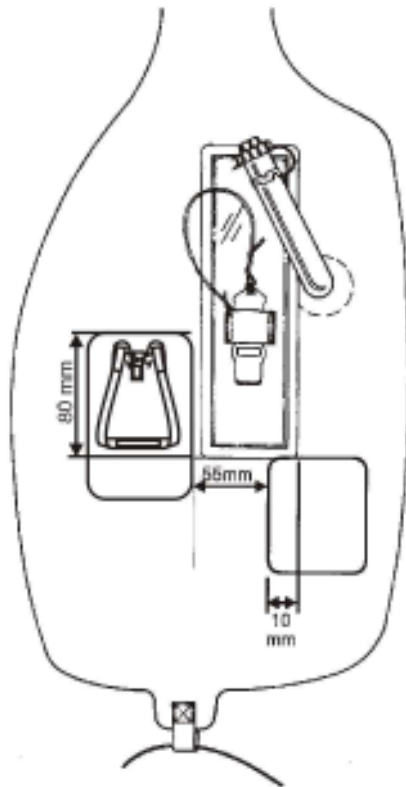
- 6.1 Stole

NOTE: All references to left, right, back and front are relative to the wearer.

- 6.1.1 Lay the lifejacket down on a flat clean surface.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 6.1.2 Carefully unfasten the Touch-and-close fastener on the right hand side of the pouch.
- 6.1.3 Detach the cord tie attaching the stole to the pouch at the bottom right hand side.
- 6.1.4 Move the stole to one side and keep clear from the pouch.
- 6.1.5 Using a chinagraph pencil, make a mark for the position of the attachment of the lifeline assembly onto the stole. (Refer Fig 1).



ATTACHMENT POSITION FOR LIFELINE POCKET
FIG 1

- 6.1.6 Attach the assembly as specified at Appendix 1 of this manual.

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

6.2 Pouch

6.2.1 Move the pouch to one side and keep clear from the stole.

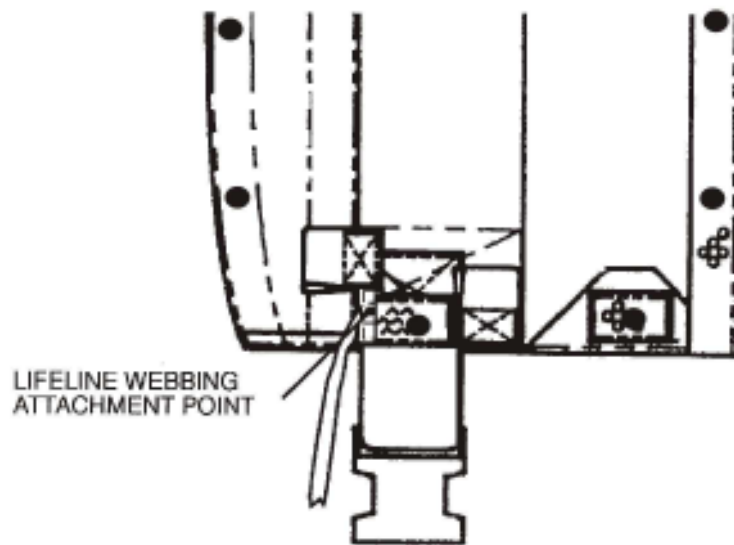
6.2.2 Using a chinagraph pencil, make a mark for the position of the attachment of the lifeline webbing onto the inner right side of the pouch. (Refer Fig 2).

6.2.3 Using a machine lockstitch Type 301, with black polyester thread, Metric 36, proceed as follows:

6.2.3.1 Stitch lifeline webbing to the marked position, within the right side pouch, using box and gate stitching.

6.3 Complete the full maintenance as specified in this manual.

6.4 Fold and pack the lifejacket as specified in Chapter 9.



LIFELINE WEBBING ATTACHMENT POINT
FIG 2

THIS PAGE INTENTIONALLY BLANK

APPENDIX 7

ATTACHMENT OF GRAB HANDLE

1 INTRODUCTION

- 1.1 Appendix 7 describes the attachment of the grab handle.
- 1.2 The grab handle is non mandatory and is optional as a customer requirement.

2 REASON

- 2.1 The reason for the introduction of the optional grab handle is to improve inwater recovery of the survivor.

3 MANPOWER

- 3.1 Man hours required to accomplish the attachment of the grab handle is estimated at:
 - 3.1.1 0.1 hrs assembly per lifejacket.
 - 3.1.2 0.1 hrs folding and packing.

4 MATERIALS

- 4.1 The parts required to attach the grab handle are as follows:
 - 4.1.1 Polyester thread, Metric 36, Black, Pt No. TH26.
 - 4.1.2 Grab handle assembly C.2313

5. TOOLING

- 5.1 No special tooling is required to attach the grab handle.

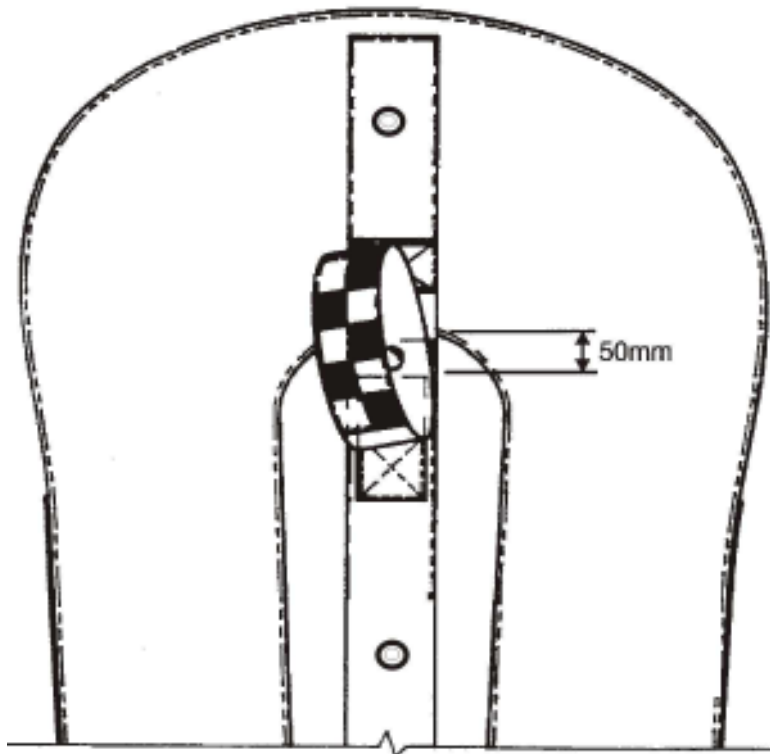
6 ACCOMPLISHMENT INSTRUCTIONS

NOTE: All references to left, right, back and front are relative to the wearer.

- 6.1 Lay the lifejacket down on a flat clean surface.
- 6.2 Unfasten the Touch-and-close fastener at the rear of the pillow section to expose the full length of back strap.
- 6.3 Using a chinagraph pencil, make a mark of the positions for the attachment of the assembly onto the backstrap. (Refer Fig 1).

BEAUFORT AIR-SEA EQUIPMENT LIMITED
Mk 28 LIFEJACKET
25-60-47

- 6.4 Using a machine lockstitch Type 301, with black polyester thread, metric 36, proceed as follows:
- 6.4.1 Attach the free end of the grab handle webbing to the marked position on the back strap with two sets of box and gate stitching in a 35 mm square. (Refer Fig 1).
 - 6.4.2 Punch a 3 mm hole for the male portion of the grab handle press stud on the back strap. (Refer Fig 1).
 - 6.4.3 Using a stud assembly tool, attach press stud Pt No. FT54 to the backstrap.
 - 6.4.4 Make sure stud opens and closes with the stud on the handle.
 - 6.4.5 Attach handle to backstrap stud.
- 6.5 Complete the full maintenance as specified in this manual.



GRAB HANDLE POSITION
FIG 1