

CHAPTER 3
PACKING INSTRUCTIONS
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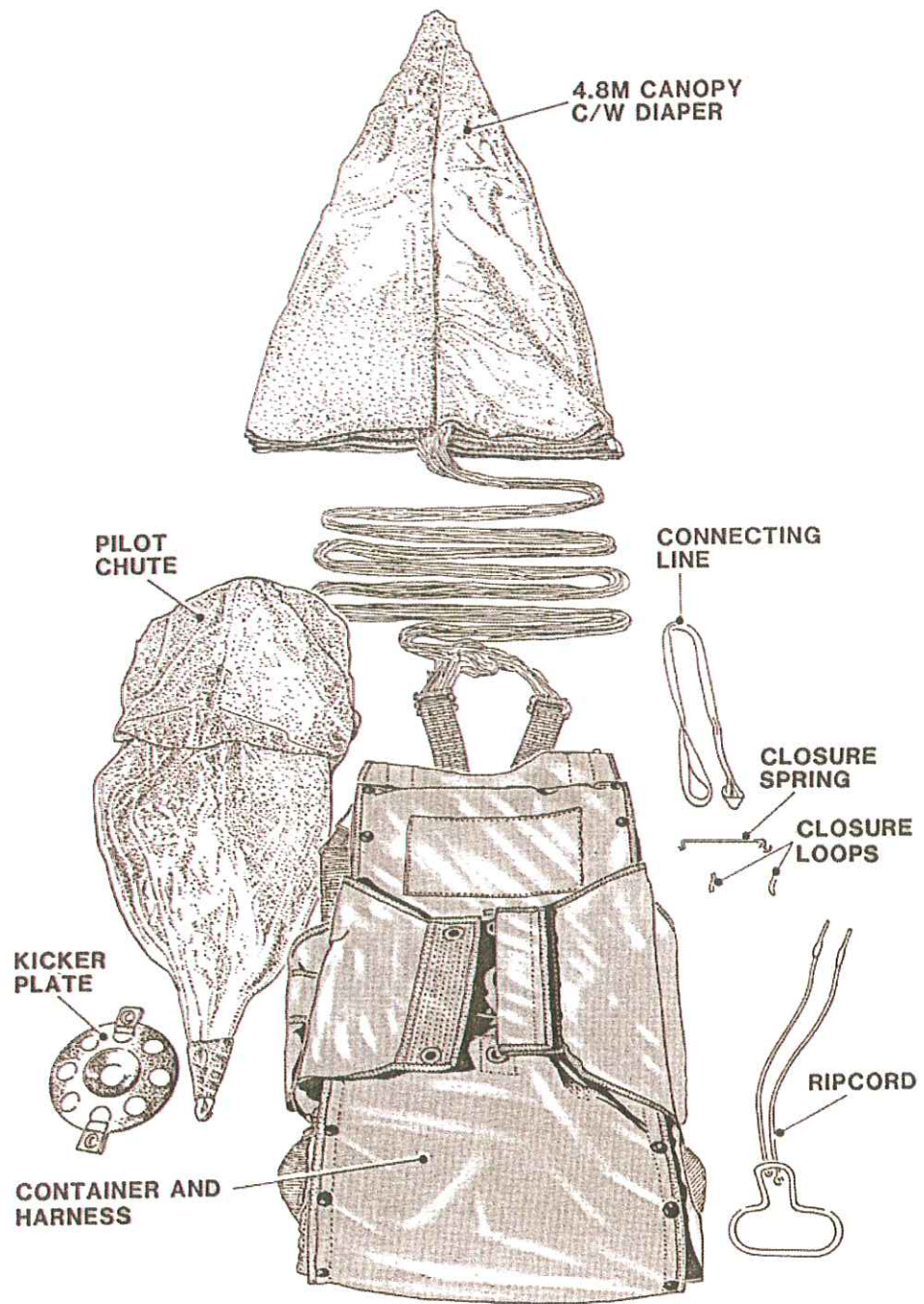


Fig 1 Assembly components

INTRODUCTION

1 This chapter details, assembling of components and packing instructions for a parachute assembly GQ 650 "Silhouette".

WARNING

RE-PACKING OF THIS ASSEMBLY MUST BE UNDERTAKEN BY A CERTIFIED FAA RIGGER OR FOREIGN EQUIVALENT

ASSEMBLY OF COMPONENTS

2 Should it be necessary to replace any components of the assembly owing to unserviceability, refer to Chapter 1 Table 1 for component parts, numbers and description.

TABLE 1 LIST OF PACKING MATERIALS

GQ Drg No/Part No	Nomenclature	Qty
GQ D 30727	Elastic band 51 x 13 mm (2 x 0.5 in)	A/R
GQ MS 572	Tape white adhesive 25 mm (1 in)	A/R
GQ MS 1870	Thread linen No 18	A/R
GQ MS 462	Loctite superfast 241	A/R

ATTACHING THE CONNECTING LINE AND PILOT CHUTE (Fig 2 and 3)

3 To attach the connecting line and pilot chute to the canopy apex, refer to Fig 2 and 3 and proceed as follows:

3.1 Attach the 64 mm (2.5 in) cord loop attached round the apex lines over the packing table hook.

3.2 Arrange the canopy to lay with No 1 gore uppermost, trace No 1 gore main seam tape from the canopy periphery to the apex. Count off lines 1 to 10 and ensure the 64 mm (2.5 in) cord loop is passing round these lines.

3.3 Pass the small loop of the connecting line round the 10 lines then pass the large loop through the small loop (Fig 2) pull up tight to form a larkshead knot.

3.4 Pass the large loop through the pilot chute eye and then pass the pilot chute through the large loop, pull up tight to form a larkshead knot (Fig 3).

3.5 At a point 64 mm (2.5 in) from the pilot chute eye pass a complete stitch of doubled No 18 linen thread through the centre of the connecting line loop, tie off the ends of thread with a reef knot and thumb knot (Fig 3).

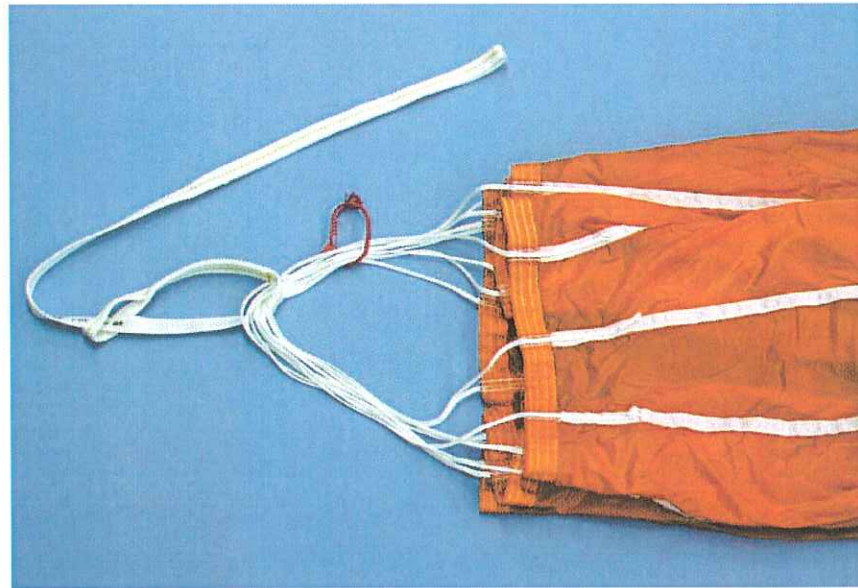


Fig 2 Attaching connecting line



ONE COMPLETE TURN OF DOUBLED No 18 THREAD
(NOTE: BLACK THREAD FOR CLARITY ONLY)

Fig 3 Attaching the pilot chute

PREPARING THE CONTAINER AND HARNESS (Fig 4 and 5)

4 To prepare the container and harness refer to Fig 4 and 5 and proceed as follows:

4.1 Position the container and harness on the table with the open container facing the table, then release the two double 'L' links securing the seat straps to the main lift webs, this enables the container assembly to lay flat during packing operations.

4.2 Release the chest straps, then fold back the back pad to expose the ripcord protection flap. Release the press studs and fold the protection flap over to expose the two container closure eyelets (Fig 4).



Fig 4 Ripcord cable stowage

4.3 Pass the two ripcords into the waistbelt tunnel ensuring that they pass under the elastic loop, open the press studded flap to expose the 25 mm (1 in) aperture in the waistbelt, pass the ripcords through the aperture. Ensure that the ripcord handle is fully inserted into the pocket and with the crank facing out, turn down the small press studded flap and secure the press studs. Fold back the waistbelt and finally ensure that both ripcords are running clear with no twist.

4.4 Pass the two ripcord pins through the two closure loops, then pass the two loops through the closure eyelets in the container. Tape over each pin and loop using a suitable length of 25 mm (1 in) white adhesive tape this will temporarily hold the pins and loops in position during packing operations. Fig 5 shows the ripcord pins and closure loops fitted with pin and taped.

4.5 Turn the ripcord protection flap over the pins and fold down the back pad, then invert the pack.

PREPARING THE DIAPER (Fig 6)

5 To prepare the diaper, refer to Fig 6 and proceed as follows:

5.1 Attach 51 x 13 mm (2 x 0.5 in) elastic bands to each of the webbing tape loops (10 total), attach further bands to the left and right-hand lower loops as shown in Fig 6. Attach two further bands to the two small eyelets ensuring that they are positioned to the side of the flap as shown in Fig 6 and not to the lower edge of the diaper.



Fig 5 Ripcord and closure loops fitted



Fig 6 Diaper prepared

RIGGING LINE CHECK (Fig 7)

6 To carry out a rigging line check, refer to Fig 7 and proceed as follows:

6.1 Ensure that the rigging lines are free of twists and entanglements then carry out a rigging line check, at the attachment links select lines No 1 and 20 positioned at the inside edge of the upper pair of links and lines No 10 and 11 positioned inside edge at the lower pair of links (Fig 7). Trace all four lines from the links to the canopy periphery and ensure they are running clear.

6.2 Ensure each link securing screw is fully tightened if loose or if the links have been replaced the screw threads are to be treated with Loctite on re-assembly.

<u>Upper left link</u>	5	4	3	2	1		20	19	18	17	16	<u>Upper right link</u>
	o	o	o	o	o		o	o	o	o	o	
<u>Lower left link</u>	6	7	8	9	10		11	12	13	14	15	<u>Lower right link</u>
	o	o	o	o	o		o	o	o	o	o	

Notes ...

- (1) As seen looking towards the canopy periphery
- (2) Ensure that each link is fitted with the rounded shoulder on the inside of each lift web.

Fig 7 Rigging line sequence

FOLDING THE CANOPY (Fig 8, 9 and 10)

7 To fold the canopy refer to Fig 8, 9 and 10 and proceed as follows:

7.1 Separate the gores into their respective half-sets, with No 1 to 10 on the left and No 11 to 20 on the right.

Folding first stage (Fig 8)

7.2 With rigging lines 1 to 10 in the left-hand and 20 to 11 in the right-hand throw the right-hand group of lines over the left-hand. Place No 10 line onto the table and commence folding the right-hand half of the canopy by placing No 11 line onto No 10, continue folding in sequence until all gores are folded with No 20 gore on top. Straighten all the folded gores from the folded periphery to the apex and place shot bags at intervals along the gores to retain the folds in position.

7.3 To fold the left-hand gores, hold the rigging lines of the folded gores Nos 20 to 10 in the right-hand and the group of lines 1 to 9 in the left-hand. Throw the left-hand group over the right-hand group, commence folding the left hand of the canopy by placing No 9 rigging line onto No 10 continue in sequence until all gores have been folded with No 1 gore on top. Straighten the folded gores from periphery to apex and place shot bags at intervals along the gores to retain the folds in position. Fig 8 shows the first stage of folding completed.



Fig 8 Folding the canopy : stage 1

Folding second stage (Fig 9 and 10)

7.4 Fold the bottom corner of each half-set upwards and inwards at 45 degrees so that the hem folds are aligned with the central seam, as shown Fig 9.

7.5 Fold the whole length of the right hand half-set inwards to cover the central seam and bring the folded left hand panels across to the right hand outer edge (Fig 10).



Fig 9 Folding he canopy – stage 2



Fig 10 Canopy folded

CLOSING THE DIAPER AND STOWING THE RIGGING LINES (Fig 11, 12 and 13)

8 To close the diaper and stow the rigging lines, refer to Fig 11, 12 and 13 and proceed as follows:

8.1 Fold over the diaper closure flap and position the grouped rigging lines to run centrally over the diaper closure flap (Fig 11).

NOTE

When forming the diaper mouthlock and stowing the rigging lines, ensure that the bights of lines protrude through the elastic bands approximately 32 mm (1.25 in) and that the outgoing lines from each stowage band emerges towards the pack and harness.

8.2 Form the diaper mouthlock by first inserting a bight of rigging lines through the top right elastic band (Fig 12), insert a second bight through the top left hand band (Fig 12).

8.3 Continue stowing the lines into the elastic bands until all bands are filled. Ensure that 305 mm (12 in) of lines remains unstowed. Fig 13 shows all the lines stowed.



Fig 11 Closing the diaper : stage 1



Fig 12 Forming the mouthlock



Fig 13 Diaper closed rigging lines stowed

STOWING THE CANOPY (Fig 14 to 21)

9 To stow the canopy, refer to Fig 14 to 21 and proceed as follows:

9.1 Position the right hand lift webs within the covers located on the container yoke (Fig 14). Close the cover over the webs and secure the touch and close fastener strips (Fig 15). Repeat the above procedure for the left hand lift webs.

9.2 Position the lift webs in the container ensuring they lie parallel with container side wall as shown in Fig 16.

9.3 Invert the diaper and stowed rigging lines and position to the top edge of the container as shown in Fig 17.

9.4 Form the first fold of the canopy the full length of the container as shown in Fig 18.

9.5 Re-arrange the first fold to form the second fold along the container lower wall as shown in Fig 19.

9.6 The third fold is formed as shown in Fig 20 and is a short fold to correspond with the stowed diaper and rigging lines.

9.7 Form the final fold as shown in Fig 21, then turn the canopy apex under. Ensure the pilot chute connecting line is positioned over the final fold as shown in Fig 21 and that the canopy protection flaps are not beneath the folded canopy.

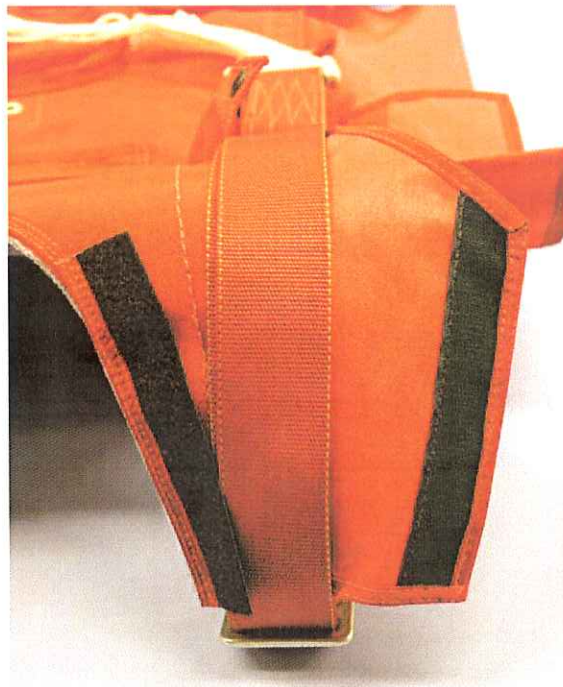


Fig 14 Lift webs positioned in covers



Fig 15 Lift web covers secured

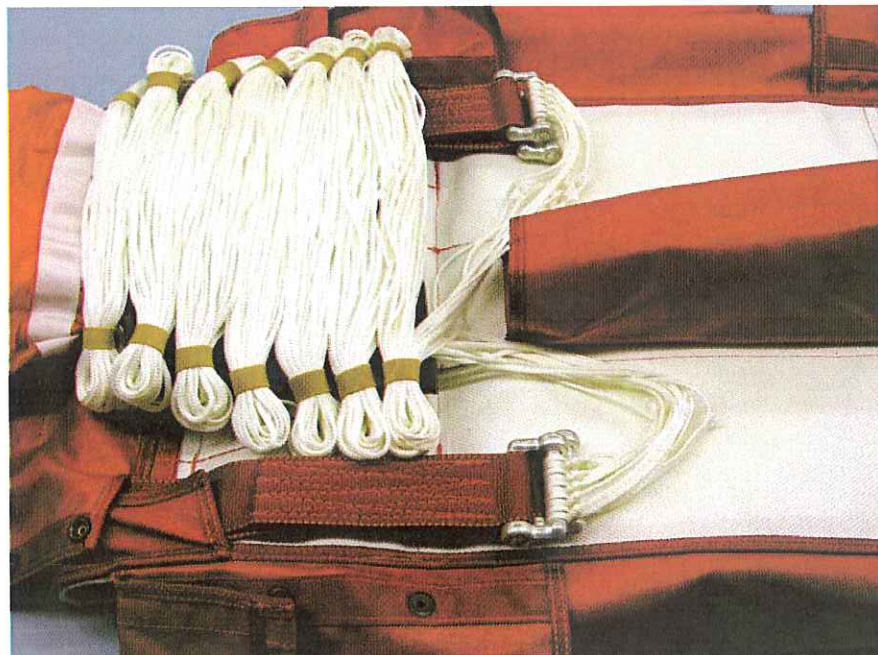


Fig 16 Lift webs positioned in container



Fig 17 Positioning the diaper



Fig 18 Stowing the canopy : 1st fold



Fig 19 Stowing the canopy : 2nd fold



Fig 20 Stowing the canopy : 3rd fold



Fig 21 Stowing the canopy : final fold

CLOSING THE CONTAINER (Fig 22 to 32)

10 To close the container refer to Fig 22 to 32 and proceed as follows:

10.1 Tuck in each of the four side protection flaps and mate the press stud fasteners (Fig 22).

10.2 Attach a pull-up cord to each of the closure loops, then pass the right-hand pull-up cord through the eyelet in the right-hand container flap, pull up the flap then insert a temporary locking pin through the closure loop to retain the flap in position.

10.3 Repeat para 10.1 and pull up the left-hand flap, Fig 23 shows both flaps pulled up and temporary locking pins inserted.

10.4 Ensure that the canopy protection flaps are laying flat and over the canopy this will ensure that the canopy will not be damaged by the closure loops during final closure.

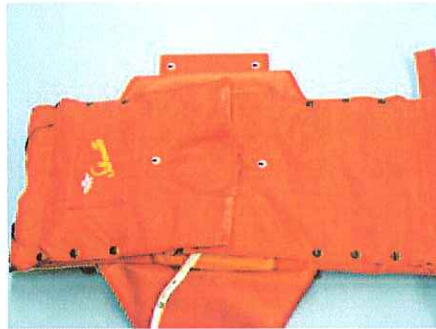


Fig 22 Protection flaps tucked in and secured

Stowing the pilot chute (Fig 24, 25 and 26)

10.5 Position the kicker plate over the reinforced area on the two flaps ensuring that the curvature is uppermost as shown in Fig 24.

10.6 Pass the right hand pull up cord through the eyelet attached to the right hand side of the kicker plate, pull the loop of the closure loop through the eyelet and secure with temporary locking pin (Fig 24).

10.7 Repeat para 10.5 to secure left hand side of the kicker plate.

10.8 Coil the connecting line onto the kicker plate then place the base of the pilot chute on top of the coiled connecting line then 'S' fold the fabric over the coiled connecting line. Locate the pilot chute spring base over the 'S' folded fabric and ensure the two outer eyelets attached to the crown are positioned as shown in Fig 25.



Fig 23 Closing the container : stage 1



Fig 24 Positioning the kicker plate

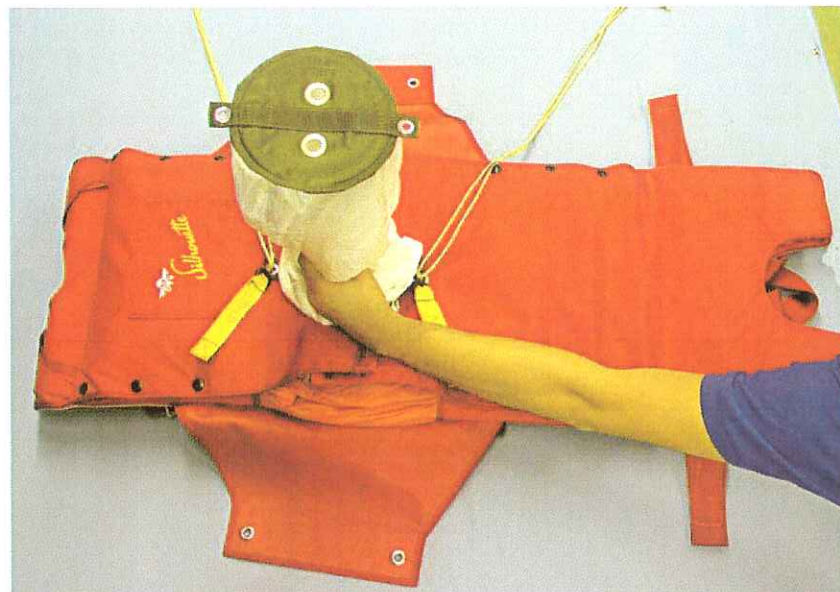


Fig 25 Positioning the pilot chute

10.9 Compress the pilot chute spring then pass the right-hand pull-up cord through the eyelet attached to the right-hand side of the crown tuck in all loose fabric then remove the temporary locking pin and re-insert over the pilot chute eyelet.

10.10 Repeat para 10.9 for the left-hand eyelet Fig 26 shows the pilot chute stowed.

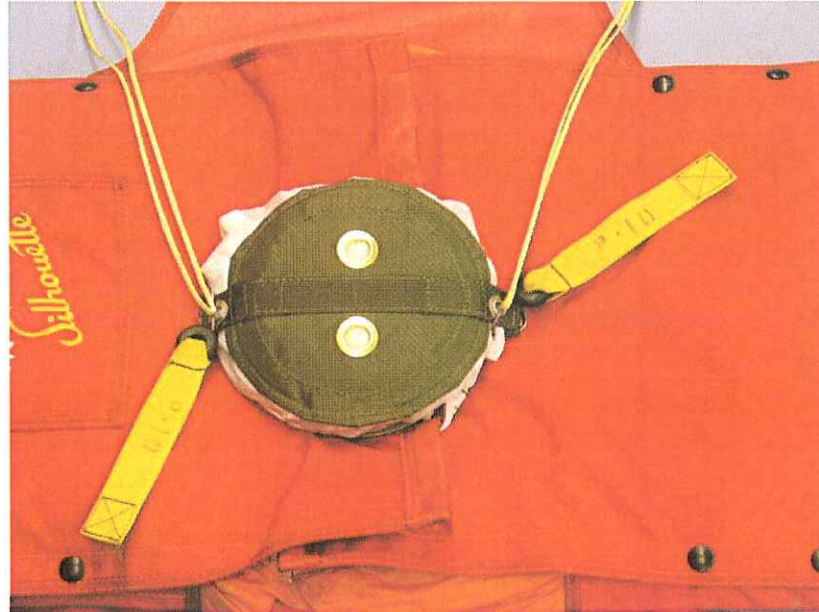


Fig 26 Pilot chute stowed

CLOSING THE PACK FINAL STAGES (Fig 27 to 32)

WARNING

WHEN CLOSING THE SIDE FLAPS, ENSURE THAT THE CANOPY APEX REMAINS AT THE TOP OF THE 'S' FOLDED CANOPY AND IS NOT ROLLED DOWN TO THE PACK BASE, TO LIE IN CLOSE PROXIMITY TO THE LIFT WEBS. THIS WILL ELIMINATE THE RISK OF ENTANGLEMENT BETWEEN THE APEX LINES AND THE L BAR CONNECTOR LINKS.

10.11 Pass the pull up cords through the two eyelets in the flap nearest the packer pull up the flap then remove the temporary locking pins and re-insert over eyelets in the flap (Fig 27).

10.12 Pass the pull up cords through the two eyelets in the remaining flap, pull up the flap, then remove the temporary locking pin and re-insert over the two eyelets (Fig 28).



Fig 27 Closing the container : stage 2



Fig 28 Container closed

Attaching the closure spring (Fig 29)

10.13 Commencing with the left hand container closure loop, pull up on the pull up cord to ensure the closure loop is pulled well up, then remove temporary locking pin and insert one of the hooks attached to the closure spring through the closure loop.

10.14 Attach a length of cord, (to be use to stretch the spring) over the hook in the free end of the closure spring, pull-up on the cord attached to remaining closure loop then remove temporary pin, stretch the spring and pass the hook through the closure loop. Carefully remove both pull-up cords ensuring that the closure loops are not seared. Fig 29 shows the closure spring fitted. Turn over the closure spring cover flap and mate the touch and close fastener (Fig 30).

10.15 Invert the container, then REMOVE THE TWO LENGTHS OF ADHESIVE TAPE holding the ripcord pins in position. Ensure the ripcord pins are fully inserted.

10.16 Fold over the ripcord protection flap and mate the touch and close fastener and two press studs (Fig 32). Finally fold down the back pad and mate the touch and close fastener.

10.17 Ensuring that no twist are present in the straps re-connect each lift web and seat strap ensure that the screws threads of the double 'L' links have been treated with Loctite.

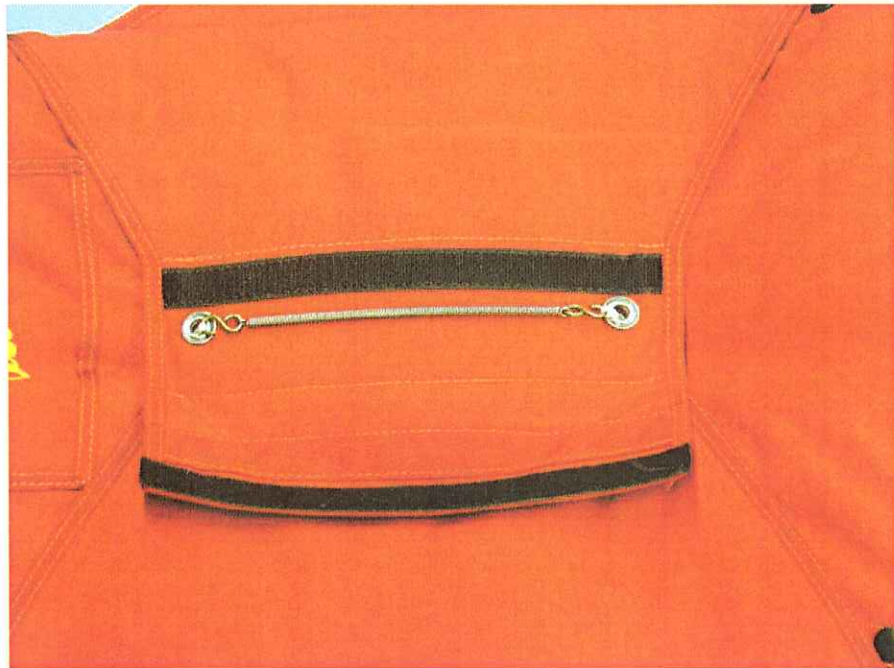


Fig 29 Closure spring fitted

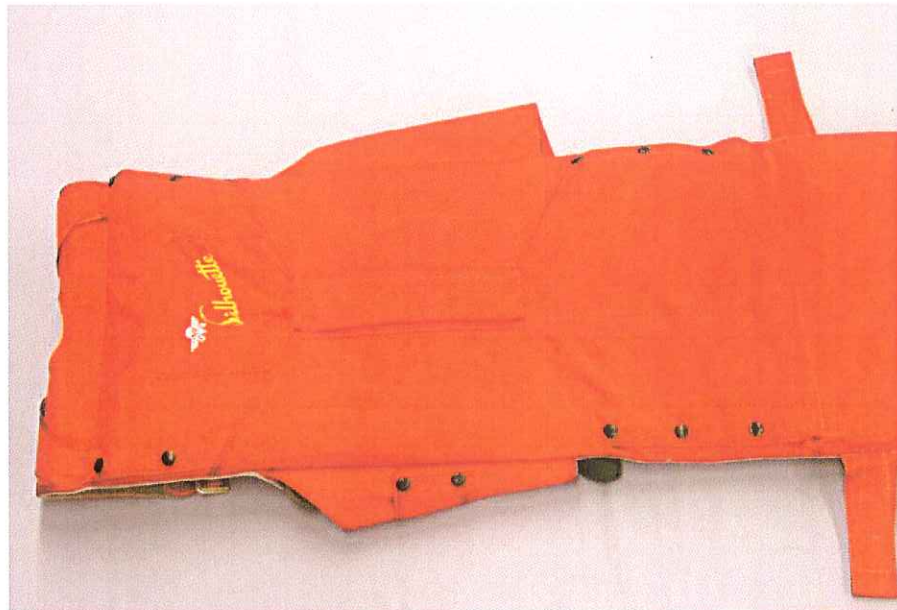


Fig 30 Closure spring cover flap closed



Fig 31 Ripcord pins in position

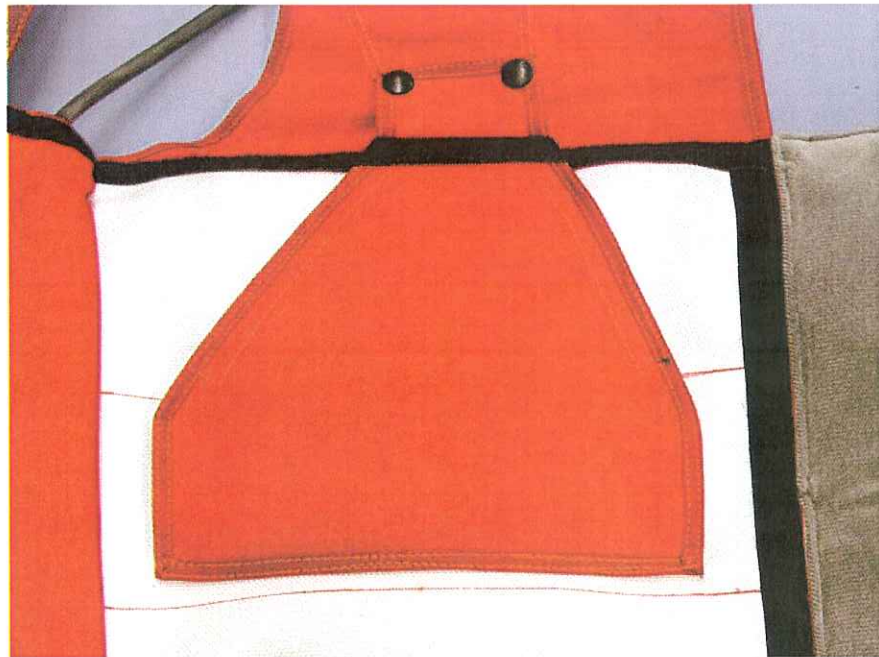


Fig 32 Ripcord protection flap closed