

24-January-97

**CAMERON BALLOONS LTD (THUNDER & COLT)  
SERVICE BULLETIN: ENVELOPES SB3**

**Subject: THUNDER AND COLT  
TRIVENTS**

**Title: Reinforcement of attachments on the Trivent flap.**

**Parts affected: SN 3528, CN 3553, CN 3688, CN 3719, CN 3746, CN 3825  
CN 3833, CN 3835, CN 3845, CN 3886, CN 3891, CN 3922  
CN 3949, CN 3956, CN 4026.**  
*(Balloon Serial Nos)*

**Reason for modification: To ensure that all the attachments on the centreline of the flap are adequately reinforced.**

**Classification: CAA MANDATORY**

**Compliance: Inspection of red line attachment to the TRIVENT flap, to be performed before every flight, until reinforced.  
The inspection may be performed by the Pilot.  
Reinforcement to be performed, within twenty flying hours of receiving this bulletin.**

**Accomplishment Instructions: Inspect the balloon as described in section A.  
Add reinforcements as described in section B.**

**If in doubt please contact the factory.**

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## **Section A Inspection.**

Unpack the balloon and locate the red line attachment on the flap.

If there is any damage to the stitching at the ends of the attachment loop then no further flight is permitted.

Make one of the following entries in the balloon's logbook:-

"Envelope inspected according to the instructions of Cameron Balloons Service Bulletin No. Envelopes SB3. No damage to the attachment loop stitching."

"Envelope inspected according to the instructions of Cameron Balloons Service Bulletin No. Envelopes SB3. attachment loop stitching damaged. Attachment to be reinforced before further flight."

Sign and date this logbook entry.

## **Section B. Reinforcement of Trivent attachments**

### Materials Required:

Load Tape: Woven Polyester or nylon tape, Minimum strength 680 kg. Minimum width 19mm. Length as required.

Sewing Thread: Three Strand Metric 40 Nylon or Polyester thread.

### Tools Required:

Sewing Machine: Lockstitch twin-needle sewing machine with sharp needles, set to a stitch length between 2.5 and 4 mm.

### General Procedure.

1. The ends of stitch lines must always be "locked" by overlapping or back tacking to prevent the new seam from pulling apart.
2. The cut ends of the load tape should be sealed with a flame or hot knife in order to prevent fraying.
3. The stitch pattern for all the reinforcements is detailed in Figure 1.

Fitting the new Red line attachment

Make a loop by folding 47 cm of tape in half and sewing across the tape 2.5cm from the folded end with 6 rows of stitching. Untie the red line and carefully remove the existing attachment making sure to mark its position. Open out the two free ends and sew to mark, with the ends running along the centreline tape as detailed in drawing CB1202 "Centre line loops" and Fig 1.

Reinforcement of flap attachment.

Locate the centre of the side where the flap is attached to the envelope. The centreline tape of the flap should be sewn to a vertical load tape. Where this tape is sewn to the load tape, reinforce with the stitch pattern as Fig 1. Also add a hinge to the outside of the flap, this is a 30cm length of tape with 15cm sewn to the outside of the flap and 15cm sewn to inside of the vertical load tape over the flap. These reinforcements are detailed in drawing CB1202 and Fig 1.

Reinforcement to the Flap Tip.

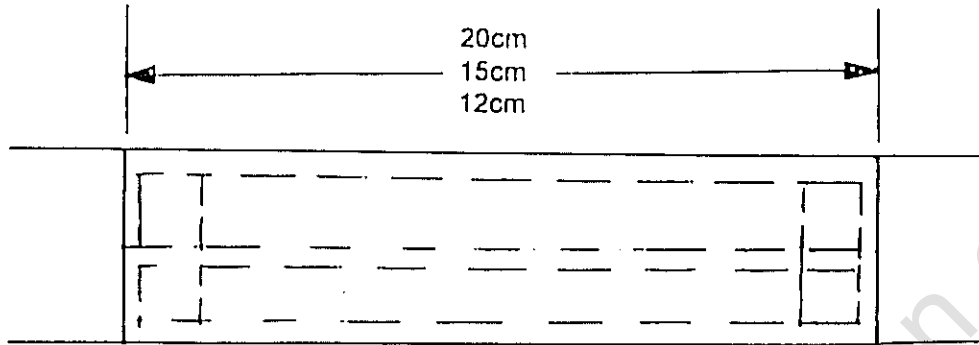
At the tip of the flap make sure that the centreline tape is sewn right through the flap fabric, with the stitch pattern shown in Fig 1. Correct if the sewing does not conform

The reinforcements should be inspected by an approved inspector and the following entry made in the balloon logbook.

"Trivent reinforced as specified in Cameron Balloons  
Service Bulletin No. Envelopes SB3"

Sign and date the logbook.

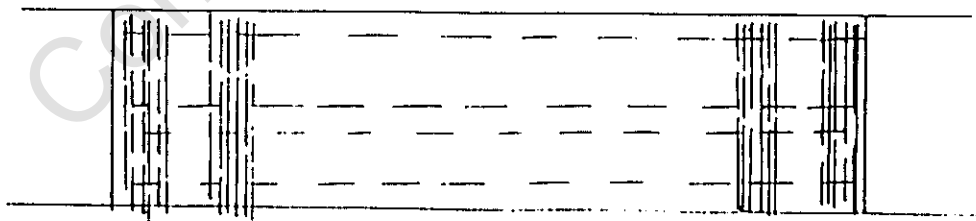
Fig 1 Twin-needle Box stitching Pattern

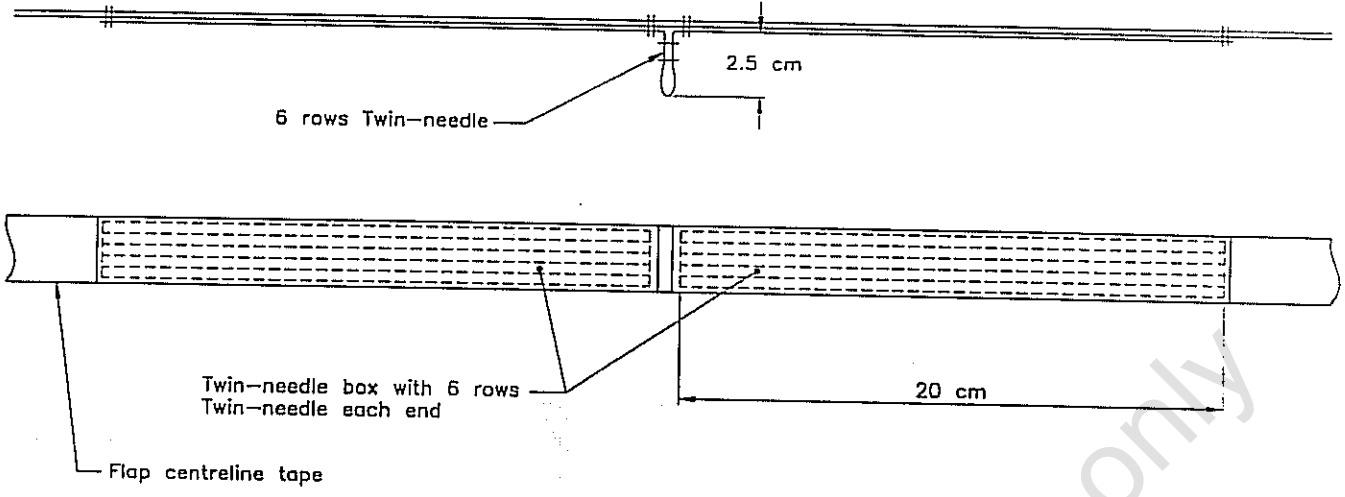


Then add 6 rows of stitching at each end.

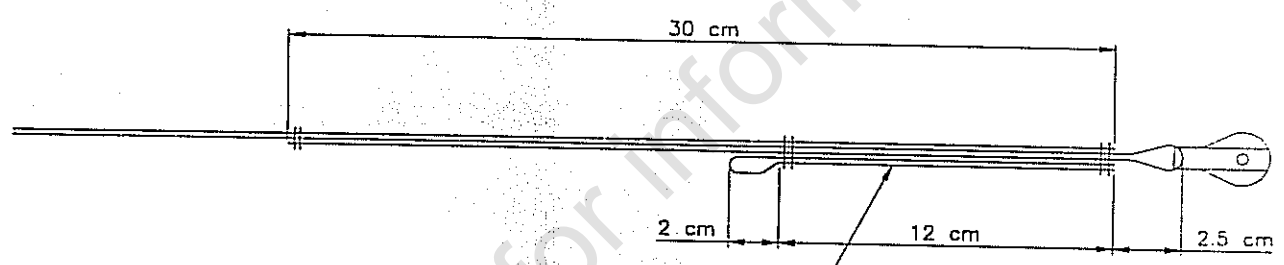


Finished Stitch Pattern.

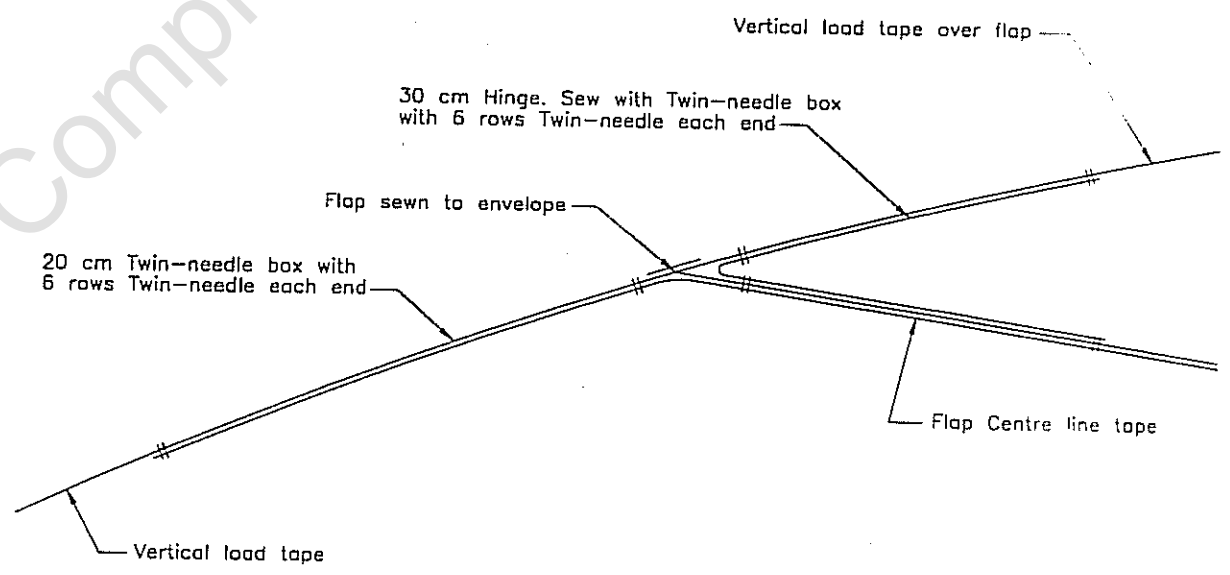




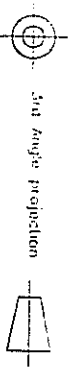
CENTRE LINE LOOPS



FLAP TIP DETAIL



CENTRE LINE TAPE JOINT WITH THE BALLOON DETAIL



Cameron Brothers Ltd, Bristol - England

1097	Dimensions in mm unless noted otherwise	Stressed
	Linear ±	Approved
	Angular ±	Title
		Trivent Sewing Details
	Revised labeling	
	CDH 21.1.97 ISS 0	
	CDH 10.1.97 ISS A	
	Modification Record	
	Trivent Sewing Details	