## LINDSTRAND BALLOONS LTD

# **SERVICE BULLETIN NO. 3**

### ISSUE 1 - DATED 14.05.96.

Title: ADVANCED SUPERCHUTE RIGGING **Classification**: Optional Applicability: All LBL hot air balloons fitted with the SuperChute deflation system 010 onwards Serial Numbers Affected: **Compliance Standard:** As required Background: With increasing experience of the SuperChute deflation system, it has been found in a few instances that the parachute has a tendency to displace to one side after arming pin release and lock activation. This is largely due to the operating line tending to pull towards the fixed lower pulley. This movement of the parachute inhibits the simple replacement of the system.

#### Accomplishment Instructions:

The red SuperChute operating line is modified to produce a vertical force on the SuperChute lock. This is achieved by the rigging shown on the attached drawing, SB3-001. The modification should only be incorporated by a repair station approved by the National Airworthiness Authority.

#### Steps

- Sew a standard 25 cm GW59055 tape loop onto the envelope at a position that is level with and 180 degrees away from the existing SuperChute line pulley (Point A). See Figure 5.1.2.3.3 of the Maintenance Manual, LBL HABMM Issue 1.1.
- 2. Remove the existing SuperChute pulley and replace it with a Seasure 1011 pulley which is attached to the existing tape loop on the envelope (Point B).

3. Undo the 8 mm red SuperChute line at the cross tapes in the centre of the parachute and remove this line completely (Point C).

4. Attach another small Seasure 1011 pulley to the cross tapes in the middle of the parachute using a quick link. Make sure that the quick link is attached to both tapes (Point C).

5. Run the 3.5 mm polyester covered kevlar cord, AR 35 PE (minimum tensile strength 400 kg) through the lower Seasure pulley (Point B), up through the parachute pull-

down lines, through the pulley at the middle of the parachute (Point C) and down to the new tape loop <u>sewn</u> onto the envelope (Point A). Take great care to ensure that the line passes through the correct pair of pull-down lines, both up to and away from the parachute pulley.

6. Tie off a safety knot in the end of the 3.5 mm red line and then tie the line onto the new loop. Make sure that there is at least 1 m of slack left over after the knot has been tied. This slack can be tied back onto the line to keep it tidy. Use a bowline knot to attach the red line to the loop. (See Figure 5.1.2.5 for details on Bowline knot in the Maintenance Manual).

7. Inflate the balloon with the SuperChute system fully installed. Heat the balloon up so that it is close to its normal operating weight. Mark the position of the line where it meets the burner frame height. Make another mark 3 m further down from the line. Deflate the balloon using the SuperChute and check for correct operation.

- 8. Cut a 7 m length of the old 8 mm red line from the end of the SuperChute line which was fitted with the French hook. Measure from the end of the new red line 5 m upwards and tie the line end in position. The excess 3.5 mm line can now be cut away, but turn back at least 2 m of slack to allow for line shrinkage during the life of the balloon.
- 9. Tape up all the loose ends of the lines, copying the technique used on the other line ends for the rotation vents or arming line.
- 10. Note inclusion of modification within the aircraft log book and have resulting work inspected and approved according to normal National Airworthiness procedures.



SB3-001 RE-RIGGED SUPERCHUTE OPERATING LINE 0 L