

MAINTENANCE M A N U A L

### 6.5 ENVELOPE

Envelope Hours at inspection date:	
Envelope hours at end of preceding	
calender year	
Applicable AD or SB:	
Document Check:	

## **6.5.1** Envelope Structure

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
Crown Line	Inspect condition	
Crown Ring	Inspect for damage and Corrosion	
	Inspect turnbacks at crown ring	
	Inspect joints between vertical tapes and any tapes overlying the parachute or rip panel	
Vertical Load Tapes	Inspect joints between vertical tapes and the top edge of the envelope	
	Inspect tapes	
	Inspect joints between load tapes and flying cables	
	Inspect load tape protectors	
	Inspect parachute edge tape	
Horizontal Load Tapes	Inspect horizontal load tapes	
	Inspect base tape	
Fabric	Inspect for damage, porosity, overheating or weakness	
Panels	Inspect joints and stitching	
Flying Cables	Inspect for damage, annealing, maillon links for security (if fitted)	
Grab Test	Check and Record, All colours tested (Repeat each annual inspection >250hr or at inspectors discretion). Minimum Strength= 30lb (13.6kg). Refer to Section 6.7	

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## 6.5.2 Deflation System

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
Fabric	Inspect for damage, porosity, overheating or weakness (especially edges)	
Panels	Inspect joints and stitching	
Sewn Loops	Inspect for damage, wear, security (both on the deflation panel and envelope)	
Centralising Lines	Inspect for damage wear, security of knots	
Shroud Lines	Inspect for damage wear, security of knots	
Top strings	Inspect for damage wear, security of knots	
Control Lines	Inspect for damage wear, security of knots	
Control Line Attachments	Inspect for damage, wear, security (both on the deflation panel and envelope)	
Control Line Pulleys	Inspect for wear, free running, contamination, security of attachment	
Maillon Links	Inspect for Security, damage, heatshrink complete and undamaged	
RDS Pulleys	Inspect for wear, free running, contamination, security of attachment	
Transparent	Inspect the window material for tears or cracking	
Panels	Inspect the adhesive tape fitted to the edge of the window	
Guide Rings	Inspect for damage, wear, security of attachment	
Riplocks/ Capewells	Inspect Riplocks/Capewells and check installation/function	
Arming Shackle	Inspect the condition of the quick release shackle and check that it operates smoothly (Lock Top only)	
Grab Test	Check and Record, All colours tested (Repeat each annual inspection >250hr or at inspectors discretion). Minimum Strength= 30lb (13.6kg). Refer to Section 6.7	
Parachute Edge grab Test	Check and Record, All colours tested (>250hr or at inspectors discretion) between the edge of the panel and the Velcro tabs. Minimum Strength= 21lb (9.5Kg)	

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### 6.5.3 Turning Vents/Side Dump

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
Fabric	Inspect for damage, porosity, overheating or weakness (especially inside the envelope)	
Panels	Inspect joints and stitching	
Free Tapes	Inspect condition of stitching at ends of tapes	
Pulling Triangles	Inspect condition of stitching	
Control Lines	Inspect for damage wear, security of knots	
Control Line Attachments	Inspect for damage, wear, security (both on the deflation panel and envelope	
Control Line Pulleys	Inspect for wear, free running, contamination, security of attachments	
Shock Cord	Inspect condition, check operation	
Vent Line Stop	Inspect condition, correctly fitted.	

### **6.5.4** Envelope Temperature Measurement

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
	Check temperature streamer and melting link are securely attached	
	Inspect the Tempilabel. Record the Max. Temperature indicated in the logbook. If >121C Perform overheat inspection	

## 6.5.5 Test Inflation (if required)

A test inflation is required for Special Shape Balloons but optional for conventionally shaped balloons.

System	Check / Inspect / Record	Pass/Fail (√)/(x)
Deflation System	Inspect Seals, Functional Check	
Turning Vents	Inspect Seals, Functional Check	
Dumps	Inspect Seals, Functional Check	

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#### 6.5.6 Grab Test Results

## 6.5.6.1 Grab Test Results-Envelope

Colour	Result	Colour	Result

## 6.5.6.2 Grab Test Results-Deflation System

Colour	Result (panel/edge)	Colour	Result (panel/edge)

Notes:

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## 6.5.7 Burner System

Burner Type:			Part No.:	
Burner Serial No.:			Frame Part No:	
Serialised Parts	1	2	3	4
Coil				
Block				

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
	Inspect welds for cracking	
	Inspect tubes for distortion/deformation/cuts/gouges	
Burner Frame	Inspect frame for security of fasteners (heat shields, flexi corners)	
	Inspect frame lugs for wear, cracking.	
	Inspect general condition (corrosion, heatshields)	
Gimballing	Check stiffness, security of fittings	
Height adjustment	Check Function, Leaks. Check SB19	
Karabiners	Inspect for wear, corrosion, correct function, correct type	
Burner System	Leak Check (including manifolds)	
Hoses	Inspect all Hoses, check dates (if applicable)	
Pressure Gauges	Check Pressure Gauge reads zero when no pressure applied, lens present	
Pilot Valves	Check Shut off, free movement, Correct Function, lubricate if necessary*	
Whisper Valves	Check Shut off, free movement, Correct Function, lubricate if necessary*	
Main Valves	Check Shut off, free movement, Correct Function, lubricate if necessary*	
Crossflow Valve	Check Shut-off, correct operation, leakage	
Jets	Check Security of Jets, Tighten or Replace as necessary	
Coils	Check for damage, distortion, security of fasteners	
Fuel Manifolds	Check Correct Type, Inspect condition, check dates (if applicable)	

\* Refer to Section 4

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#### 6.5.8 Basket

Basket Type:		
Part No.:	Serial No.:	

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
Basket wires	Inspect for damage	
Basket	Basket Inspect welds for cracking	
Frames	Inspect tubes for distortion/deformation	
Weave	Inspect for damage, deterioration, completeness	
Rawhide	Inspect for damage, deterioration, completeness	
Floor	Inspect for damage	
Runners	Inspect for damage, wear, security of attachment	
Rope Handles	Inspect for damage security of attachment	
Cylinder Straps	Inspect for damage, deterioration, correct specification, No. of Straps ( )	
Pilot Restraint Anchor	Inspect for damage, wear, security of attachment	
Support Rods	Inspect for damage, wear, cracking	
Trim	Inspect for damage, deterioration, completeness	

## 6.5.8.1 Basket Ancillary Equipment

Component	Check / Inspect / Record	Pass/Fail (√)/(x)
Fire Extinguisher	Check Type, maintained in accordance with manufacturers instructions	
Launch Restraint	Inspect for damage, deterioration, security of fittings, correct operation	
Pilot Restraints	Inspect for damage, deterioration, security of fittings, correct operation	
Instruments	Functional Check (if fitted)	

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## 6.5.9 Fuel Cylinders

No.	Man./Part no.	Serial No.	Initial Test date ( Manufacture Date)	Current Test Date	PRV Date
1					
2					
3					
4					
5					
6					

Component	Check / Inspect / Record		Pass/Fail (√)/(x)					
		1	2	3	4	5	6	
Cylinder	Check, Periodic inspection for each cylinder is valid (date)							
Cytilidei	Inspect for damage, corrosion							
	Inspect for damage, corrosion, correct operation							
Liquid Valve	Inspect self seal for correct operation, Lubricate/replace as required. SB16/SB17							
	Inspect O-ring seals, Lubricate/replace as required							
Pressure	Check, Date does not exceed life limit, single PRV fitted							
relief valve	Inspect for contamination, corrosion							
Fixed Liquid	Inspect for damage, corrosion, correct operation							
Level Gauge	Inspect Fuelsafe for correct operation/leakage (if fitted)							
Contents Gauge	Inspect for damage, corrosion, freedom of movement							
Vanour Valva	Inspect for damage, corrosion, correct operation (including regulator)							
Vapour Valve	Inspect Quick Release Coupling for correct operation, sealing							
Padded Cover	Inspect for damage							
Assembly	Inspect, Leak test all pressure holding joints using leak detector							
Assembly	Functional Test							

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