



Double layer installation procedure

Version 01_00

Option double layer

About

This Document describe the process to install a double layer option to existing Ballons Chaize.

The double layer aims to decrease the fuel consumption.

The double layer or internal envelope can consist of 100%, 60% or 30% on the existing envelope.

The percentage is calculated in number of panel and rounded up.

Compatibilities

“Ballons Chaize” type JZ and CS as listed in the TCDS EASA.BA.015 can be retrofitted with a double layer.

Limitations

➤ Provider

The internal envelope must be provided by Ballons Chaize part 21G with a proper Form 1 and tailored to the balloon Size.

➤ Weight

The internal envelope once fitted changes dramatically the weight of the existing envelope. A new weighing of the envelope must be performed once the internal envelope is fitted.

➤ Option Installation

The internal envelope can only be fitted by an approved part MF.

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Installation Procedure.

Procedure for installing the double layer.

This operation can only be performed by Ballons Chaize.

Tasks	Drawing	Visa
Envelope		
Install all the fixation point on the external envelope	500000 500300 500100 500200 (only for 100% double layer)	
Untie all the parachute centralising lines from the external envelope		
Untie all the manoeuvre ropes from the external envelope		
Remove the parachute with the manoeuvre rope from the bottom of the balloon		
Insert the internal layer from the bottom of the balloon		
Proceed to attach all the fixation scratched fixation point	500300 500100	
Tie the parachute lines attach points and manoeuvre rope attach point from the external envelope to the internal envelope	500500	
Sew the top of the double layer to the top of the envelope as described in the drawings	500400	
If the internal envelope is a 100%, attach the bottom of the internal envelope to the external envelope.	500200	

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Parachute		
On the removed parachute, untie the centralizing lines if present (FDS)		
Tie those point to the internal parachute	500600 500601	
Sew the internal parachute to the external parachute on the fixation point	500601	
Finishing and testing		
Install the parachute back in place		
Test inflate the balloon and use the check list provided to make sure everything is functional		
Weight the balloon		

Procedure for REMOVING the double layer.

Tasks	Visa
Envelope	
Untie all the parachute centralizing ropes from the external envelope	
Untie all the maneuver ropes from the external envelope	
Remove the parachute with the maneuver rope from the bottom of the balloon	
Unsew the double layer from the external layer on top of the ballon	
Unsew the internal parachute from the external parachute	
Untie all fixation point for maneuver ropes.	
Remove the internal layer from the bottom of the balloon	
Remove fixation scratched fixation point	
Reinstall the parachute and tie the rope and centralizing lines.	
Test inflate the balloon and use the check list provided to make sure everything is functional	
Weight the balloon	

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Double layer Test inflation check list

Brand	Model	Numéro de série	
Flying time and number of launches			
Flying time and number of launches at previous inspection			
Temperature indicator: Display			
Presence of a fuse			
Applicable Airworthiness Instructions			
Points de Contrôle	OK	KO	
Double layer attachment point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rope attachment point on the double layer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parachute rope state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parachute rope entanglement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parachute opening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parachute closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Velcros positioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Velcros state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parachute sealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Centralising lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotation vent rope state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotation vent opening and closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotation vent rope entanglement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotation vent quick opening and closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FDS rope state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FDS rope entanglement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FDS opening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FDS closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Double layer annual check list

This inspection is to be performed in addition to the annual inspection.

Brand	Model	Numéro de série

What	How	VISA
Double layer condition	Check the double layer fabric condition (holes / tearing, ...)	
Double layer attachment point	Inspect the condition of the fixation point. Check the sewing of the attachment on the envelope internal and external and make sure that the fabric is not worn or damage around each point.	
Double layer knot attachment point	Inspect all the knot that tie the internal layer control rope and centralizing rope to the external layer.	
Double layer and parachute sewing	Check for any damage to the fabric or to the sewing at the attachment point of the double layer and the double parachute.	

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