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Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



# Harness Structural test Report - NfL

Inspection certificate number: PH\_349.2021

Manufacturer data: Sample data:

Davinci Products Inc. Lullaby Manufacturer name: Name: Representative: Jihun Lee **ABS** Type: 53 sinchon-gil, Okcheon-myeon, Yangpy Size: Unique Street: Gyeonggi-do 12505 HLB-10001 Post code place: Serial number: Impact pad type: (1) Republic of Korea Foam Country: Clip-in weight [kg]: 100

Integrated container:

Date of test: 11.08.2021

Atmosphere AGL:

[C°]	22	
RH [%]	57	
[hPa]	1009	

#### **Summary of Structural test**

Test id	-	Ref.	Setup	Req. Load [g]	Req. Load [N]	Min. duration [s]	Result
02	٧	5.3.2.1	Default flying position	6	6000	10	POSITIVE
03	٧	5.3.2.2	Default flying position	15	15000	5	POSITIVE
04	٧	5.3.2.3	Asymmetric, one riser	r 6	6000	10	POSITIVE
07	٧	5.3.2.6	Asymmetric, negative	4.5	4500	10	POSITIVE
09		5.3.2.4	Rescue attachments	15	15000	5	n/a
13	٧	5.3.2.7	Flying position before	landing 15	15000	5	POSITIVE
14		5.3.2.5	Towing	5	5000	10	n/a

#### Rescue deployment test

Test id	- NfL 2-565-20	Setup	Min load [N]	Max. load [N]	Measured [N]	Result
RRDT	6.1.5	Default flying position	20	70	0.00	n/a

#### **Rescue Deployment Handle strength test**

Test id	- EN 12491	Setup	Req. Load [N]	Min. duration [s]	Breaking strength [N]	Result
RRST	5.3.2	Two end points of handle	700	10	0.00	n/a

#### Rescue deployment test with integrated container for rescue system

Test id	- NfL 2-565-20	Setup	Result
RDIC	4.3.2-4.3.6	Default flying position	n/a

Manufacturer	Instrument	Type no	S/N	Validity
HBM	Load Sensor GE01	1-S9M/50KN-1	31314643	04.09.2023
Burster / MTS	Load sensor 10kN SL2	8431-6010-N000S000	593507	21.04.2026
JDC elec	Geos n°11 Skywatch	Geos n°11	Unit11	18.06.2025

Air Turquoise SA, having thoroughly assessed the sample mentioned above, declares it was found conform with Airworthiness Requirements NfL 2-565-20 - EN12491:2015 5.3.2

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 94.20

<sup>(1)</sup> If Impact pad available, see test report no. 94.22 and inspection certificate no. 94.20

Calculated values in tests reports include the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.

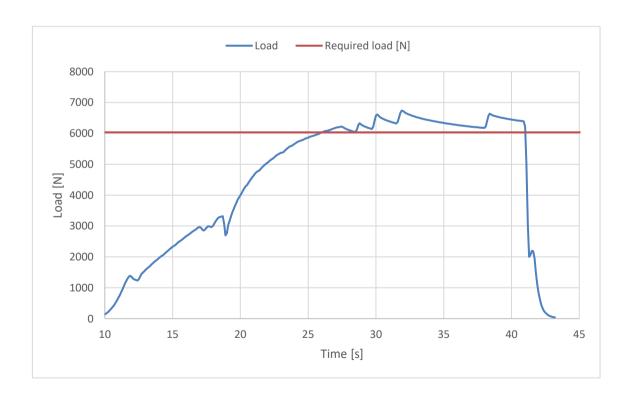
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Inspection certificate number: PH\_349.2021 model: Lullaby

Harness Structural test		Test ID 02
Standard	NfL 2-565-20	
Reference	5.3.2.1	
Test setup	Default flying position	
Attachment points	Both main riser attachment (3,4)	
Anchor points	Dummy (B1, B2)	
Required load [g]	6	
Required load [N]	6000	
Minimum test duration [s]	10	
Result		
Test duration [s]	15	F/2 Å
Any signs of structural failure	No	$\backslash \perp \mid \perp /$
Test results	POSITIVE	\3   4/
		) [
		B1   B2
		F/2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \



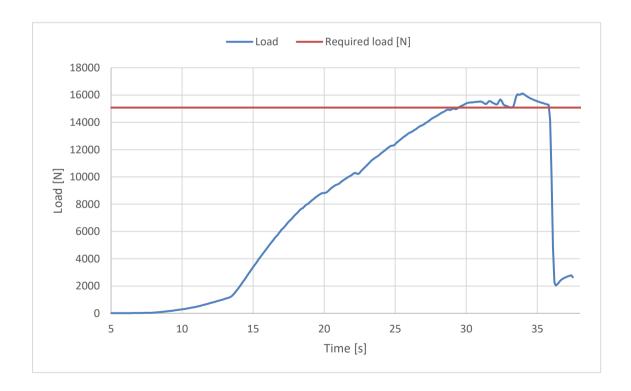
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Inspection certificate number: PH\_349.2021 model: Lullaby

Harness Structural test		Test ID 03
Standard	NfL 2-565-20	
Reference	5.3.2.2	
Test setup	Default flying position	
Attachment points	Both main riser attachment (3,4)	
Anchor points	Dummy (B1, B2)	
Required load [g]	15	
Required load [N]	15000	
Minimum test duration [s]	5	
Result		
Test duration [s]	6.4	F/2 A A F/2
Any signs of structural failure	No	
Test results	POSITIVE	(3)   4/
		)   (
		B1 /   B2
		F/2 V F/2



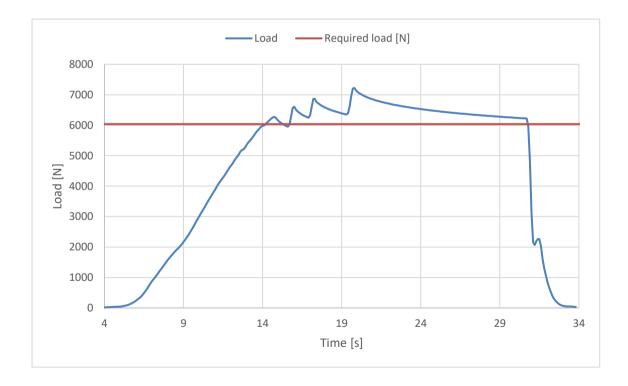
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Inspection certificate number: PH\_349.2021 model: Lullaby

Harness Structural test		Test ID 04
Standard	NfL 2-565-20	
Reference	5.3.2.3	
Test setup	Asymmetric, one riser	
Attachment points	One main riser attachment (3)	
Anchor points	Dummy (B1,B2)	
Required load [g]	6	
Required load [N]	6000	
Minimum test duration [s]	10	
Result		∫ <sup>F</sup> /
Test duration [s]	15	B1 /3 /
Any signs of structural failure	No	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Test results	POSITIVE	( )/_ /
		B2
		X c
		<b>↓</b> F



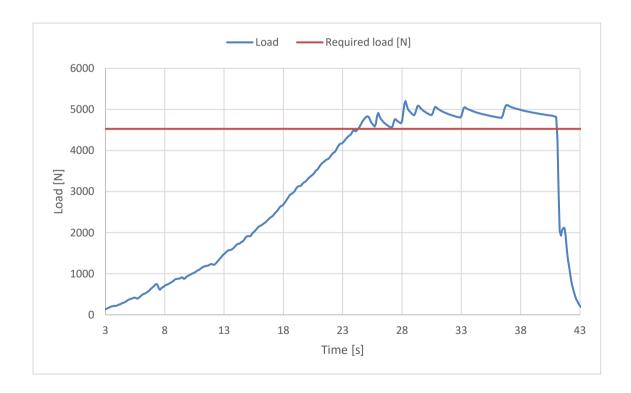
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Inspection certificate number: PH\_349.2021 model: Lullaby

Harness Structural test		Test ID 07
Standard	NfL 2-565-20	
Reference	5.3.2.6	
Test setup	Asymmetric, negative	
Attachment points	One main riser attach	nment (3 or 4) downwards
Anchor points	Dummy (9)	
Required load [g]	4.5	<b>4</b> <sup>F</sup>
Required load [N]	4500	9
Minimum test duration [s]	10	
Result		) 7
Test duration [s]	16.7	
Any signs of structural failure	No	3/4
Test results	POSITIVE	) 51
		/ //
		F
		'



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Inspection certificate number: PH\_349.2021 model: Lullaby

<b>Harness Structural test</b>		Test ID 13
Standard	NfL 2-565-20	
Reference	5.3.2.7	
Test setup	Flying position before landing	
Attachment points	Both main riser attachment (3,4)	
Anchor points	Dummy (7,8)	
Required load [g]	15	
Required load [N]	15000	
Minimum test duration [s]	5	
Result		F. (+)
Test duration [s]	7.8	- H
Any signs of structural failure	No	3/44
Test results	POSITIVE	/
		10
		7/8   11

