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Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Paragliding Harness

PH_215.2017 Inspection number : **Sky Paragliders** Manufacturer : Transformer L Model and size : 120 Maximum pilot weight [kg] : Integrated container for rescue system: Yes If Yes. Volume of the container [cm³] : 2300 min 7600 max Serial number: -----Production date (year / month) : ------Harness protector (impact pad) Impact pad type: Foam Impact pad integrated: Yes PH_215.2017 Impact pad number: If not integrated : Manufacturer Serial number: Production date (year / month) : ____

Warning : Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: EN1651:1999, EN12491:2015 and LTF NfL II 91/09 chapter 4 and 6. This model corresponds with the tested sample and its airworthiness.

RE | rev 01 | 09.03.2018 | ISO 94.20

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Harness Impact Pad Report

Inspection certificate number: PH_215.2017

Manufacturer data:		Sample data:
Manufacturer name:	Sky Paragliders	Name impact pad: n/a
Representative:	Nemec Martin	Impact pad intgrated: Yes
Street:	Okruzni 39	Impact pad type: Foam
Post code place:	73911 Frydlant N.C.	Serial number: n/a
Country:	Czech Republic	Weight of sample [kg]: n/a
		Date of test: 24.11.2017
Harness model:	Transformer L PH_215.2017	

Atmosphere AGL:

[C]	21.6	
RH [%]	37	
[hPa]	1018.2	

Summary of Impact pad test (1)

Test id	-	Test configuration ⁽²⁾		Duration at 38 [g] in [ms] ⁽⁴⁾	Duration at 20 [g] in [ms] ⁽⁵⁾	Diff. of test 1 and 2 [%] ⁽⁶⁾	Result
Р	V	Test sample attached to dummy in flying position, without emergency parachute	30.88	0.00	16.67	8.67	POSITIVE
PR	V	Test sample attached to dummy in flying position, Include emergency parachute	30.74	0.00	16.67	-0.10	POSITIVE

Manufacture	Instrument	Type no	S/N	Validity Calibration
Burster/MTS	Accelerometer 100 g	89010-100	1263567	04.08.2020
JDC elec	Geos nº11 Skywatch	Geos nୁ1	22	08.05.2019

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

(1) Calculated value 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%.

(2) The dummy is lifted minimum up to 1.65 m, and impact pad is mounted on. Where the impact occurs, measure distance from bottom of impact pad to ground.

⁽³⁾ Maximum peak of impact should be less or equal to 50 [g], ⁽⁴⁾ If any, the maximum duration in at 38 [g] should be less or equal to 7 [ms], ⁽⁵⁾ If any, the maximum duration in at 20 [g] should be less or equal to 25 [ms]. ⁽⁶⁾The test should be done twice, and the 2nd test the maximum peak should not differe more than 20% from the first test, maximum peak.

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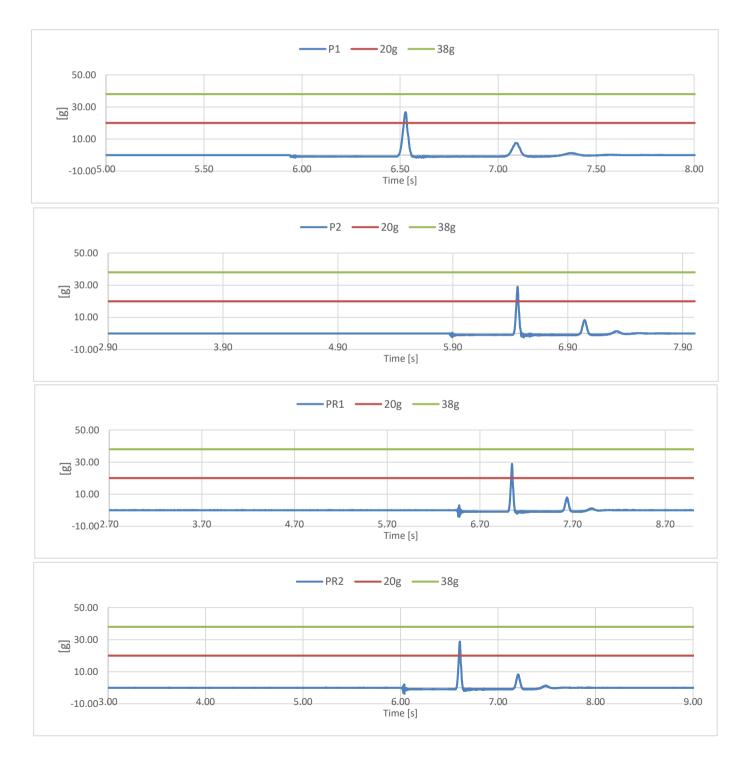
Inspection certificate number:

PH_215.2017

Name impact pad: n/a

Test results of Impact pad test

	without en	nergency parachute	include e	mergency parachute
	P1	P2	PR1	PR2
Maximum Peak of impact [g]	28.41	30.88	30.74	30.64
Impact duration at +38 [g] in [ms]	0.00	0.00	0.00	0.00
Impact duration at +20 [g] in [ms]	15.83	16.67	16.67	16.67
Uncertainty k=2[g]	1.66	1.81	1.80	1.79
Difference of test 1 and 2 [%]	100.00	108.67	100.00	99.69



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Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Harness Structural test Report

Inspection certificate number: PH_215.2017

Manufacturer data:		Sample data:		
Manufacturer name:	Sky Paragliders	Name:	Transformer	
Representative:	Nemec Martin	Type:	ABS	
Street:	Okruzni 39	Size:	L	
Post code place:	73911 Frydlant N.C.	Serial number:	2261-13-7236	
Country:	Czech Republic	Impact pad type: (1)	Foam	
		Clip-in weight [kg]:	120	
		Date of test:	24.11.2017	

Atmosphere AGL:

[C]	21.6
RH [%]	37
[hPa]	1018.2

Summary of Structural test

Test id	-	EN 1651	Setup	Req. Load [g]	Req. Load [N]	Min. duration [s]	Result
R0	V	5.3.2.1	Default flying position	6	7200	10	POSITIVE
R2	V	5.3.2.2	Default flying position	15	18000	5	POSITIVE
R4	۷	5.3.2.7	Flying position before landing	15	18000	5	POSITIVE
R6	۷	5.3.2.4	Rescue attachments	15	18000	5	POSITIVE
R8	V	5.3.2.3	Asymmetric, one riser	6	7200	10	POSITIVE
R9		5.3.2.5	Towing	5	6000	10	n/a
R10	V	5.3.2.6	Asymmetric, negative	4.5	5400	10	POSITIVE

Rescue deployment test

Test id - NfL II 91/09	Setup	Min load [N]	Max. load [N]	Measured [N]	Result
RRDT V 6.1.5	Default flying position	20	70	64.61	POSITIVE

Rescue Deployment Handle strength test

Test id	-	EN 12491	Setup	Req. Load [N]	Min. duration [s]	Breaking strength [N]	Result
RRST	۷	5.3.2	Two end points of handle	700	10	1181.86	POSITIVE

Manufacture	Instrument	Type no	S/N	Validity Calibration
HBM	Load Sensor GE01	1-S9M/50KN-1	31314643	14.10.2019
Burster	Sensor Burster	8431-10000	1185483	01.06.2020
JDC elec	Geos n୩1 Skywatch	Geos n⁰1	22	08.05.2019

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

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

Calculated value 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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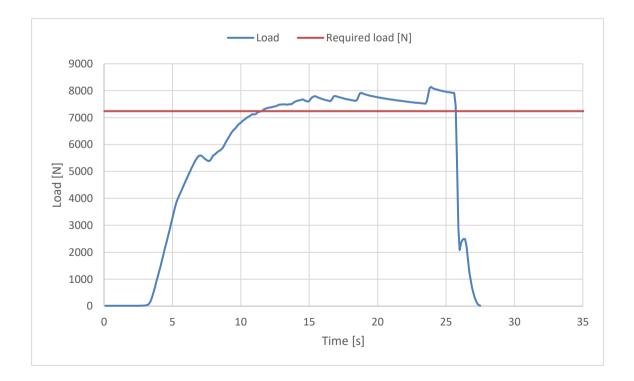
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Inspection certificate number: PH_215.2017

model: Transformer L

Harness Structural test		Test ID R0
Standard	EN 1651:1999	
Reference in standard	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	Ó
Required load [N]	7200	
Minimum test duration [s]	10	
Result		
Test duration [s]	14.2	F/2
Any signs of structural failure	No	
Test results	POSITIVE	13 4/
		F/2
		F/2 ¥ ¥ F/2
-		



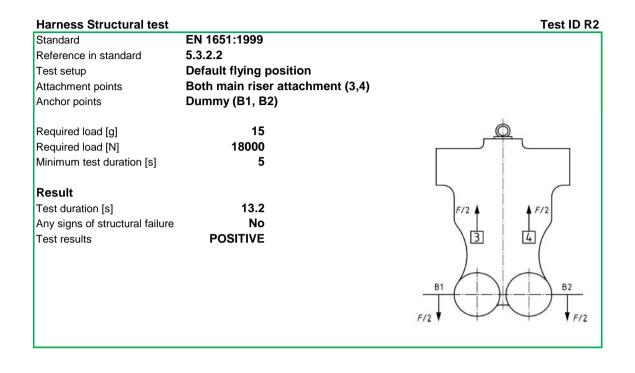
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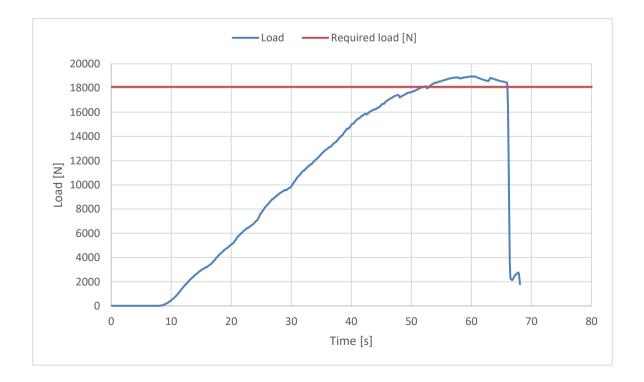
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Inspection certificate number: PH_215.2017

model: Transformer L





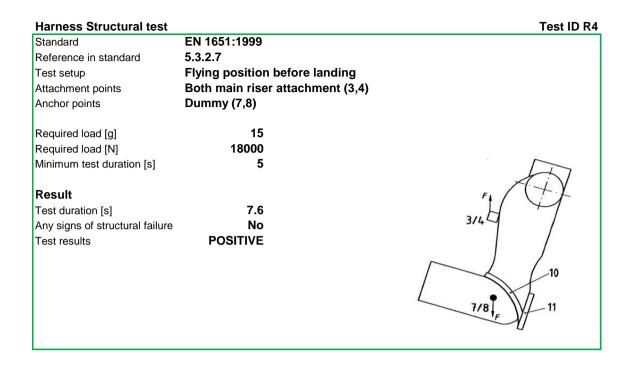
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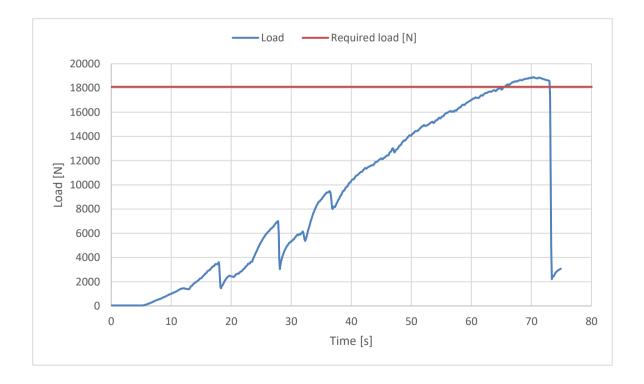
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Inspection certificate number: PH_215.2017

model: Transformer L





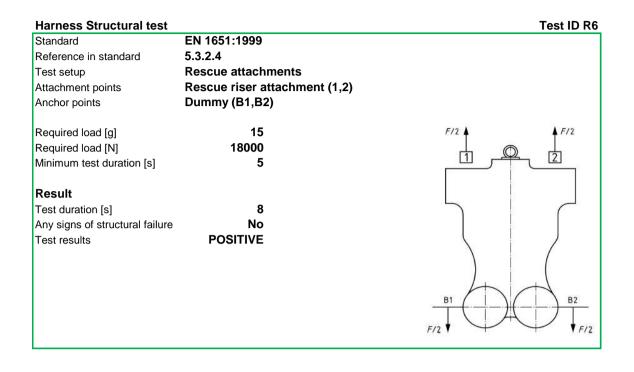
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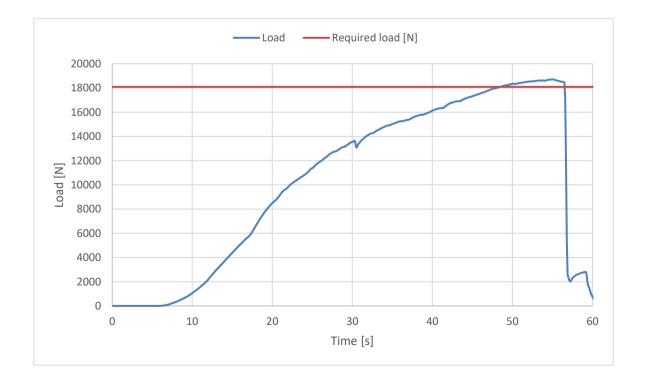
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Inspection certificate number: PH_215.2017

model: Transformer L





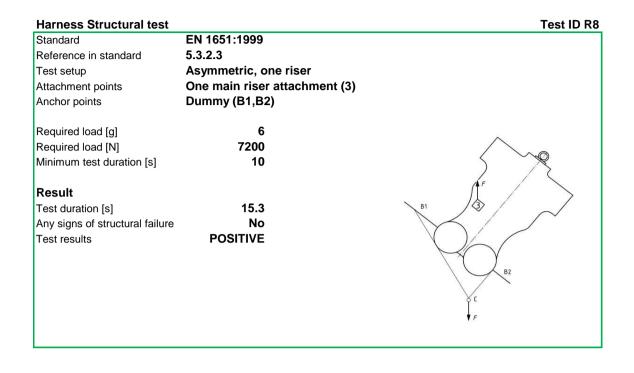
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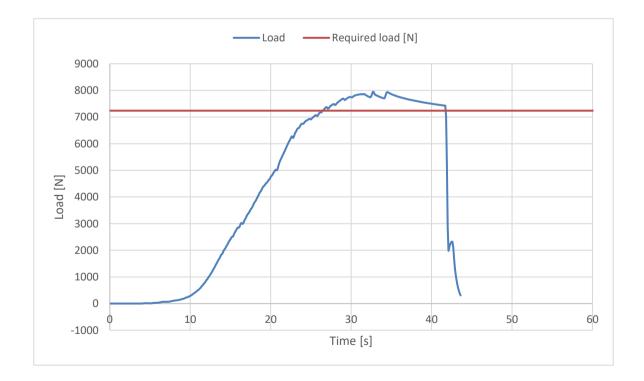
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Inspection certificate number: PH_215.2017

model: Transformer L





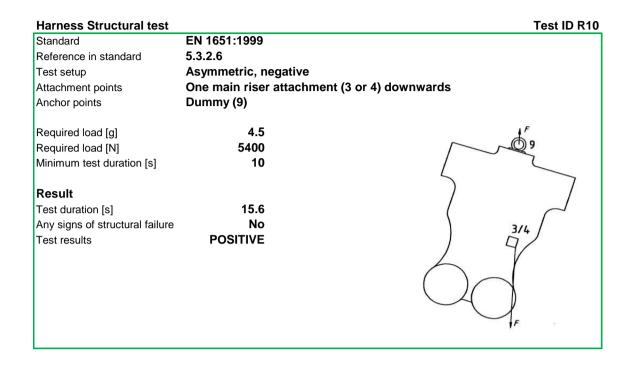
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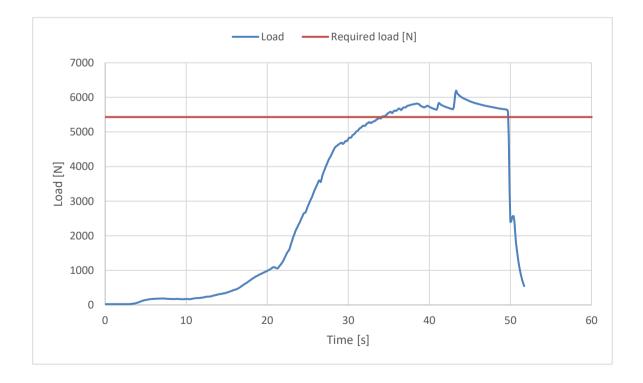
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Inspection certificate number: PH_215.2017

model: Transformer L





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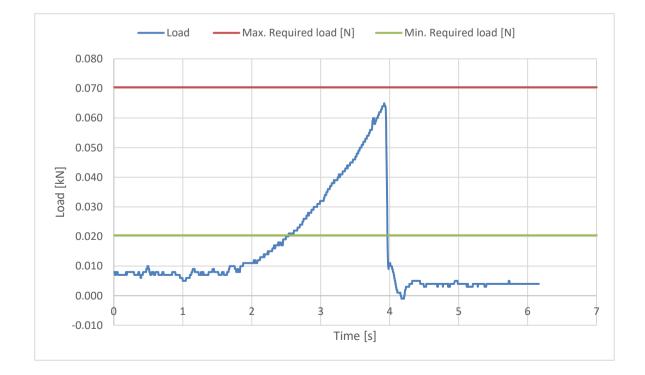
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Inspection certificate number: PH_215.2017

model: Transformer L

Rescue Deployment Tes	t	Test ID RRD1
Standard	LTF NfL II 91/09	
Reference in standard	6.1.5	
Test setup	Default flying position	
Attachment points	Sensor connect to handle, and pull in opening direction	n
	The test is to simulate the load required to open the emergency pa	arachute(1st action).
Min. Required load [N]	20	
Max. Required load [N]	70	
Result		
Load for first action [N]	64.61	
Test results	POSITIVE	



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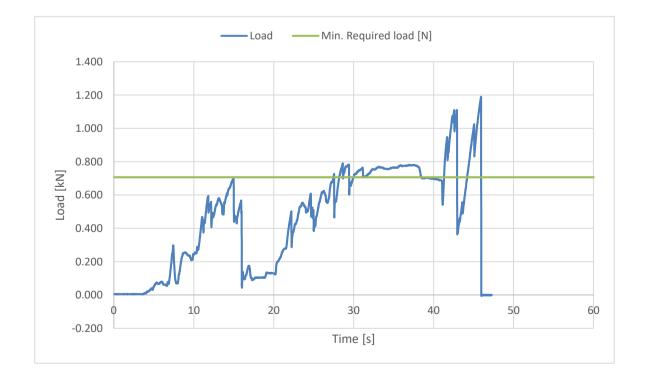
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Inspection certificate number: PH_215.2017

model: Transformer L

Rescue Deployment Ha	ndle strength test	Test ID RRST
Standard	EN12491:2015	
Reference in standard	5.3.2	
Test setup	Two end points of handle	
Attachment points	Sensor connect to end of handle,	pull on the other side
	The handle must support min 700 N for 10 s, after measure breaking strength	
Min. Required load [N]	700	
Minimum test duration [s]	10	
Result		
Test duration [s]:	7.0	
Breaking strength [N]	1181.86	
Test results	POSITIVE	



Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



PH 215.2017

Harness inspection certificate

 Inspection certificate number:
 PH_215.2017
 Impact pad number:

 Manufacturer data
 Sky Paragliders
 Nemec Martin

 Manufacturer name:
 Nemec Martin
 Street:
 Okruzni 39

 Post code / place:
 73911 Frydlant N.C.
 Czech Republic

 Sample data:	Harness		Impact pad	
Name:	Transformer	Name Impact pad: (1)	n/a	
Туре:	ABS	Impact pad integrated: (1)	Yes	
Size:	L	Impact pad type:	Foam	
Weight of Sample [kg]:	3.66	Weight of Sample [kg]: (1)	n/a	
Serial number:	2261-13-7236	Serial number: ⁽¹⁾	n/a	
Clip-in weight [kg]:	120			
Integrated container for rescue system:	Yes	Date of reception:	24.11.2017	
Volume container [cm ³]:	7600	max		
	2300	min		
Date of reception:	24.11.2017			

 Test report summary	Structual test	Impact pad test	
Result	POSITIVE	POSITIVE	
Place	Villeneuve	Villeneuve	
Date	24.11.2017	24.11.2017	

Issue data

Place of declaration: Date of issue: Managing Director: Signature: Villeneuve 04.09.2018 Alain Zoller

This signature approve the validity of the test reports if available; no. 94.21 (test id R0,R2,R6,R8,R9,R10,RRDT,RRST) and no. 94.22 (test id: P1,P2,PR1,PR2) Air Turquoise SA, having thoroughly assessed the sample mentioned above, declare it was found conform with all requirements defined by the following norms: European Standard EN1651 :1999, and EN12491:2015 chapter 5.3.2 - Airworthiness Requirements LTF NfL II 91/09 chapter 4.2.1, 5, 6.1.5 and 6.1.8

(1) If Impact pad is NOT integrated in the harness, it will have independently Inspection number, and serial number. Definition of integrated impact pad is impact pad which can not be dismounted from the harness, e.g. airbag.

Present declaration's scope only extends to the conformity of a given sample, on a given date and in a given place - as mentioned here above.

This inspection certificate contain the following test and is complet with the test, if available, report: 94.21 and 94.22