

En application de la directive n°89/686/CEE du 21 décembre 1989 concernant le rapprochement des législations des Etats Membres relatives aux équipements de protection individuelle l'échantillon essayé est déclaré conforme aux exigences essentielles de santé et de sécurité du décret n°2007-1133 du 24 juillet 2007 portant transposition de cette directive en droit français,

In application of the directive n°89/686/EEC dated 21/12/89 on the approximation of the laws of the Member States relating to personal protective equipment and the decree n°2007-1133 of July 24th 2007 transposing this Directive into French law,

Le C.R.I.T.T. SPORT-LOISIRS, habilité par le ministère de l'économie, de l'industrie et de l'emploi, pour effectuer l'examen CE de type prévu par l'article R.322-35 du code du sport et identifié sous le numéro 0501 (publié au JORF du 23/06/2015) attribue
The C.R.I.T.T. SPORT-LOISIRS, authorized by order of the Ministry in charge of economy, industry and labour, for the EC type examination with the number 0501 (notified in JORF on June 23, 2015) grants

L'ATTESTATION D'EXAMEN CE DE TYPE *the EC type Examination Certificate* N° 0501/2580/162/01/17/0077

au modèle d'équipement de protection individuelle suivant :
to the following designated personal protective equipment:

- Protection pour Sellette de parapente *Protection for Paraglider harness*.....(dénomination)(*product*)
- BUBBLE BUMP.....(marque commerciale)(*trademark*)
- Unique *one size*.....(taille)(*size*)
- SUPAIR, 34 rue Adrastée 74650 CHAVANOD- FRANCE..(fabricant et demandeur)(*manufacturer and applicant*)
- Protocole *Protocol* CRITT SL SP-001 02/2016.....(référentiel technique)(*standard*)

Le modèle BUBBLE BUMP est associé aux sellettes de référence : STRIKE
The model BUBBLE BUMP is associated with the reference Paragliders harness : STRIKE



01-17-0077
17-0122
BUBBLE BUMP

Fait à Châtelleraut, le 24/07/2017
Châtelleraut, the 07/24/2017

Franck LEPLANQUAIS
Directeur (*Manager*)

Nota : toute modification apportée au matériel neuf objet de la présente attestation d'examen CE de type doit être portée à la connaissance de l'organisme habilité, en application de l'article R 322-35 du Code du sport. *Any modification carried out on the material being the subject of the present EC type Examination Certificate must be brought to the authorised body in application of Article R 322-35 of the sport Code.*

Cette attestation comporte 1 page. *This is a one page document.*

CRITT Sport Loisirs de Poitou-Charentes

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PH PARAGLIDER HARNESSSES

INSPECTION CERTIFICATE

Inspection certificate number: **PH_175.2016**

MANUFACTURER DATA

Manufacturer name: **Supair Sàrl**
 Contact person: **Caroline Treppo**
 Street: **34, rue Adrastée**
 Post code / place: **74650 Chavanod**
 Country: **France**

SAMPLE DATA

Name: **Strike** Size: **M**
 Type: **ABS** Pilot max load [kg]: **100**
 Impact pad type: **Soft foam protectors** Weight [kg]: **1.8**
 Serial number: **2166-0413-MM-EI** Reception date: **13.04.2016**
 Volume reserve parachute container [cm3] Max: **n/a**
 Min: **n/a**

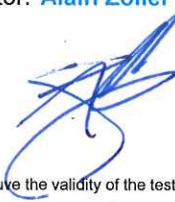
TEST DATA

ATMOSPHERE AGL

Date of test: **13.04.2016** [C°] **21.7**
 Place of test: **Villeneuve** RH [%] **40**
 Test responsible: **Alain Zoller** [hPa] **1010**

ISSUE DATA

Place of declaration: **Villeneuve**
 Date of issue: **19.08.2016**
 Managing Director: **Alain Zoller**

Signature: 

This signature approve the validity of the test reports no: R0,R2,R4,R6,R8,R9,R10

Air Turquoise SA, having thoroughly assessed the sample mentioned hereunder, declare it was found conform with all requirements defined by the following norms

European Standard **EN1651** September 1999 | Test no: R0,R2,R4,R6,R8,R9,R10

European Standard **EN12491** September 2001 | Test no: RRD,RRST

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 report contain the following test and is complet with the test report:
 71.9.1 | PH ID R0,R2,R4,R6,R8,R9,R10, RRD,RRST



Inspection certificate number: PH_175.2016

A. STRUCTURAL STRENGTH TESTS SUMMARY

A test plan was set up in order to execute the different tests in an efficient order. The table below summarizes this test plan together with the applicable standards and results

Test ID	TESTED ?	Standard Ref.	TEST setup	Anchoring		Forces		Min. Test duration [sec]	Result
		EN 1651:1999		Attach -ment points	Dummy	Req. Load in [g] force	Min. force [N]		
R0	✓	5.3.2.1	Default flying position	2 main attachment points	Hip fixated	6	6000	10	POSITIVE
R2	✓	5.3.2.2				15	15000	5	POSITIVE
R4	✓	5.3.2.7	Flying position before landing	Main risers attachments	landing conf.	15	15000	5	POSITIVE
R6	✓	5.3.2.4	Rescue attachments	Rescue riser attachments	Hip fixed	15	15000	5	POSITIVE
R8	✓	5.3.2.3	One riser	ONE main att.	1 central hip fixation	6	6000	10	POSITIVE
R9		5.3.2.5	Towing	2 main att. + 2 tow att.	None	3	3000	10	n/a
						5	5000		
R10	✓	5.3.2.6	Default, Negatif	One main att.	Head fix.	4.5	4500	10	POSITIVE

B. RESCUE DEPLOYMENT RESISTANCE TEST SUMMARY

The deployment of the rescue system has to be ensured in all circumstances of flight. This test is to verify whether the force needed to deploy is in between reasonable limits

Test ID	TESTED ?	Standard Ref.	TEST setup	Anchoring		Force for single hand deployment		Result
		EN 12491:2001		Attachment points	Dummy	Min.	Resistance measured [N]	
RRDT	✓	6.1.5	Default flying position	Test sample is attached to the dummy like a pilot in flight.		20		0.031
				(no dummy required)		70	POSITIVE	

C. RESCUE DEPLOYMENT STRAP STRENGTH TEST SUMMARY

The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal use. During this test is verified, whether this connection fulfill the requirements

Test ID	TESTED ?	Standard Ref.	TEST setup	Minimum force [N]	Min.	Breaking resistance measured [N]	Result
		EN 12491:2001			Test duration [s]		
RRST	✓	5.3.2	Connection strap in tensile testing machine	700	10	1146.0	POSITIVE

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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HARNES STRUCTURAL STRENGTH TEST

TEST REPORT PH ID 0

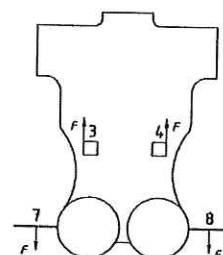
PH PARAGLIDER HARNESSSES

Inspection certificate number: **PH_175.2016**
 Manufacturer name: **Supair Sàrl**
 Name: **Strike**
 Max load [kg] : **100**
 Serial number : **2166-0413-MM-EI**
 Test place & date: **Villeneuve**
 Test responsible: **Alain Zoller**
 Directives: **EN 1651:1999**

Test standard §: **5.3.2.1**
 Test setup: **Default flying position**

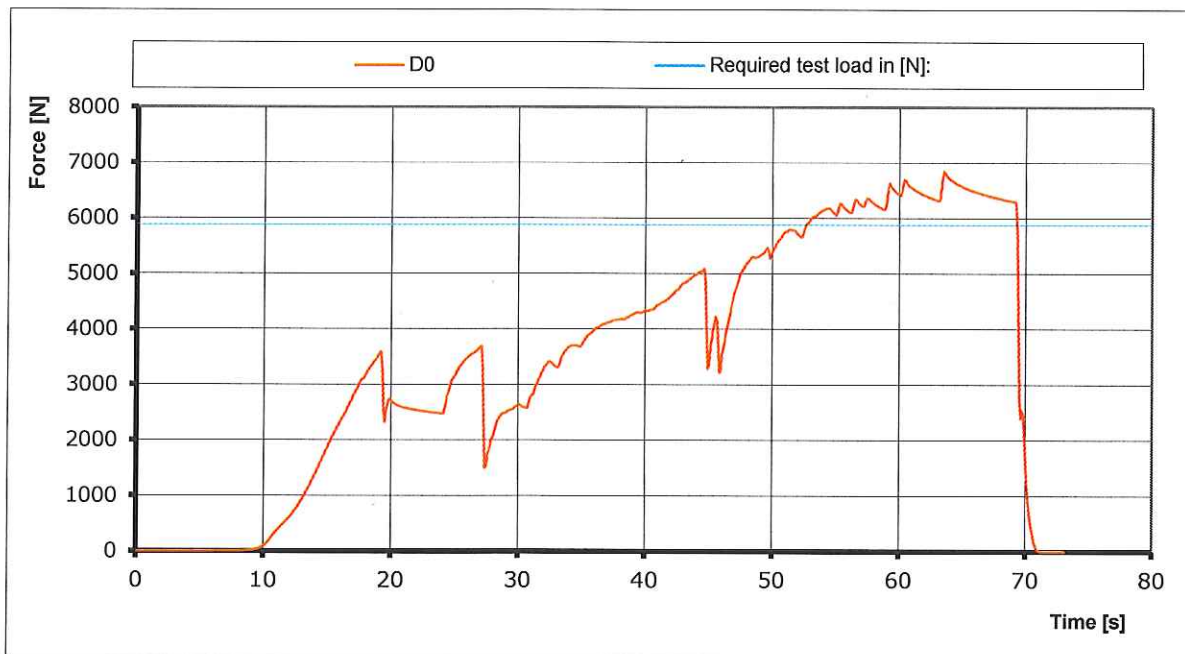
Anchoring: Attachment points: **Both main riser attachments (3, 4)**
 Dummy: **Default, hip fixed (7, 8)**

Required load in force [g] : **6**
 Model max load [kg]: **100**
 Required test load in [N]: **5886**
 Min. duration test load [s]: **10**



Results

Duration of maintained min. load [s]: **16.50** [C°] **21.7**
 Any signs of structural failure after this test: **no failure** RH [%] **40**
 Test result: **POSITIVE** [hPa] **1010**
 Graph: **D0**



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywatch	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGTH TEST

TEST REPORT PH ID 2

PH PARAGLIDER HARNESSSES

Inspection certificate number: PH_175.2016

Manufacturer name: Supair Sàrl

Name: Strike

Max load [kg] : 100

Serial number : 2166-0413-MM-EI

Test place & date: Villeneuve

Test responsible: Alain Zoller

Directives: EN 1651:1999

Test standard §: 5.3.2.2

Test setup: Default flying position

Anchoring:

Attachment points: Both main riser attachments (3, 4)

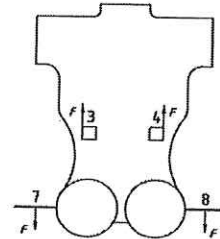
Dummy: Default, hip fixed (7, 8)

Required load in force [g] : 15

Model max load [kg]: 100

Required test load in [N]: 14715

Min. duration [s]: 5



Results

Duration of maintained min. load [s]: 8.85

[C°] 21.7

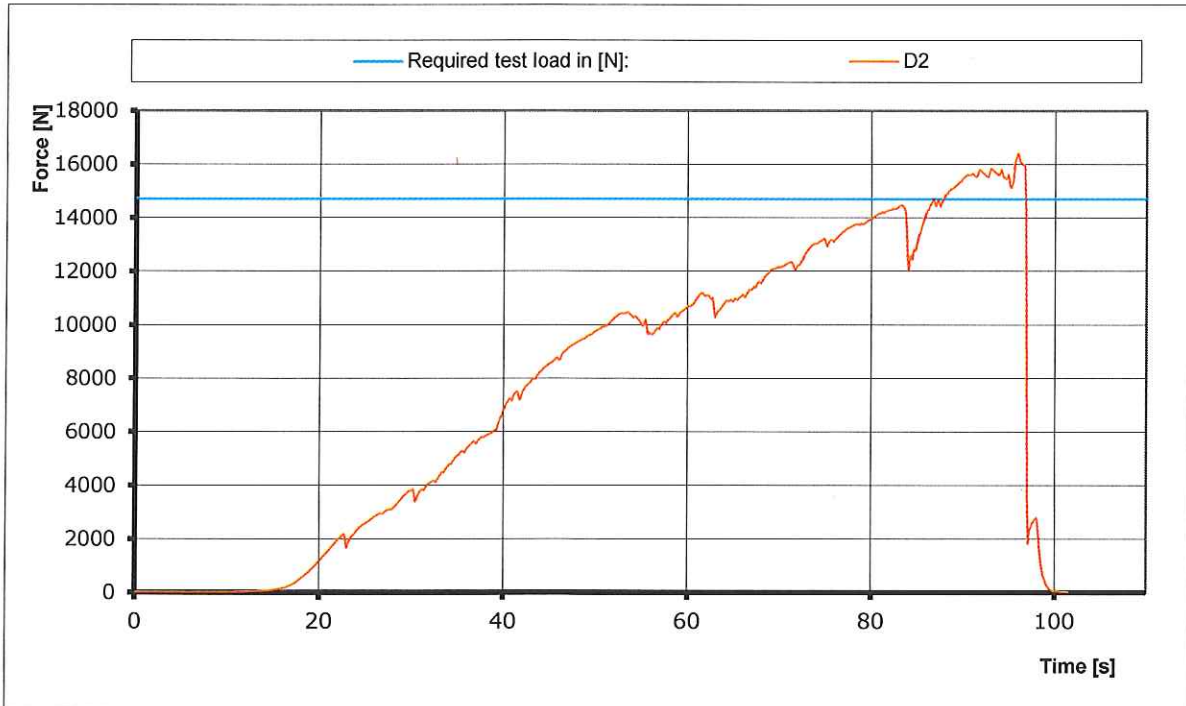
Any signs of structural failure after this test: no failure

RH [%] 40

Test result: **POSITIVE**

[hPa] 1010

Graph: D2



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywatc	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH ID 4

PH PARAGLIDER HARNESSSES

Inspection certificate number: PH_175.2016

Manufacturer name: Supair Sàrl

Name: Strike

Max load [kg] : 100

Serial number : 2166-0413-MM-EI

Test place & date: Villeneuve

Test responsible: Alain Zoller

Directives: EN 1651:1999

Test standard §: EN 5.3.2.7

Flying position before landing: seat

Test setup: board (11) in landing position, leg straps (10) closed.

Anchoring:

Attachment points: Both of the main riser attachments attached (3 and 4);

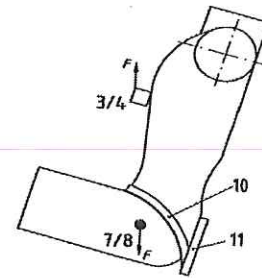
Dummy: Default, hip fixed (7, 8)

Required load in force [g] : 15

Model max load [kg]: 100

Required test load in [N]: 14715

Min. duration [s]: 5



Results

Duration of maintained min. load [s]: 10.85

[C°] 21.7

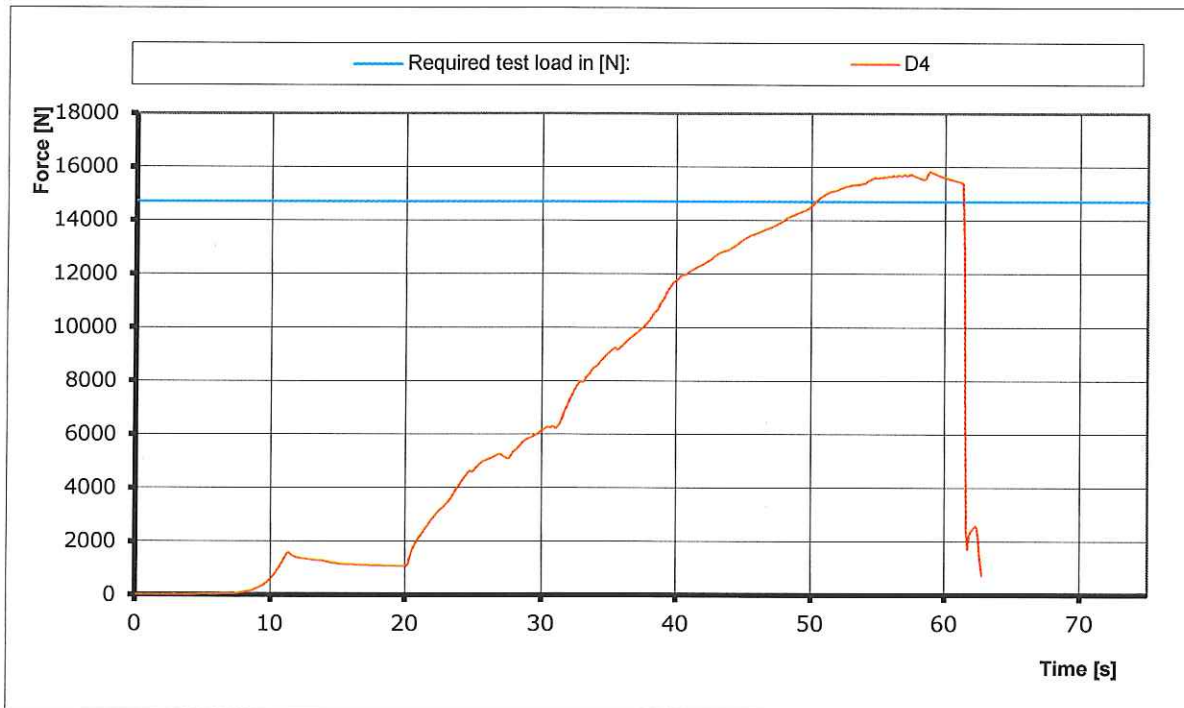
Any signs of structural failure after this test: no failure

RH [%] 40

Test result: **POSITIVE**

[hPa] 1010

Graph: D4



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywatch	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH ID 6

PH PARAGLIDER HARNESSSES

Inspection certificate number: **PH_175.2016**
 Manufacturer name: **Supair Sàrl**
 Name: **Strike**
 Max load [kg]: **100**
 Serial number: **2166-0413-MM-EI**
 Test place & date: **Villeneuve**
 Test responsible: **Alain Zoller**

Directives: **EN 1651:1999**

Test standard §: **5.3.2.4**

Test setup: **Rescue attachments**

Anchoring:

Attachment points: **Rescue riser attachments (1,2)**

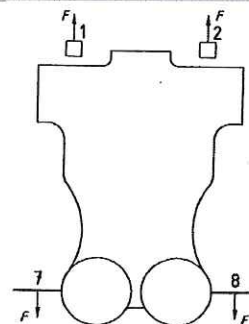
Dummy: **Hip fixed (7, 8)**

Required load in force [g]: **15**

Model max load [kg]: **100**

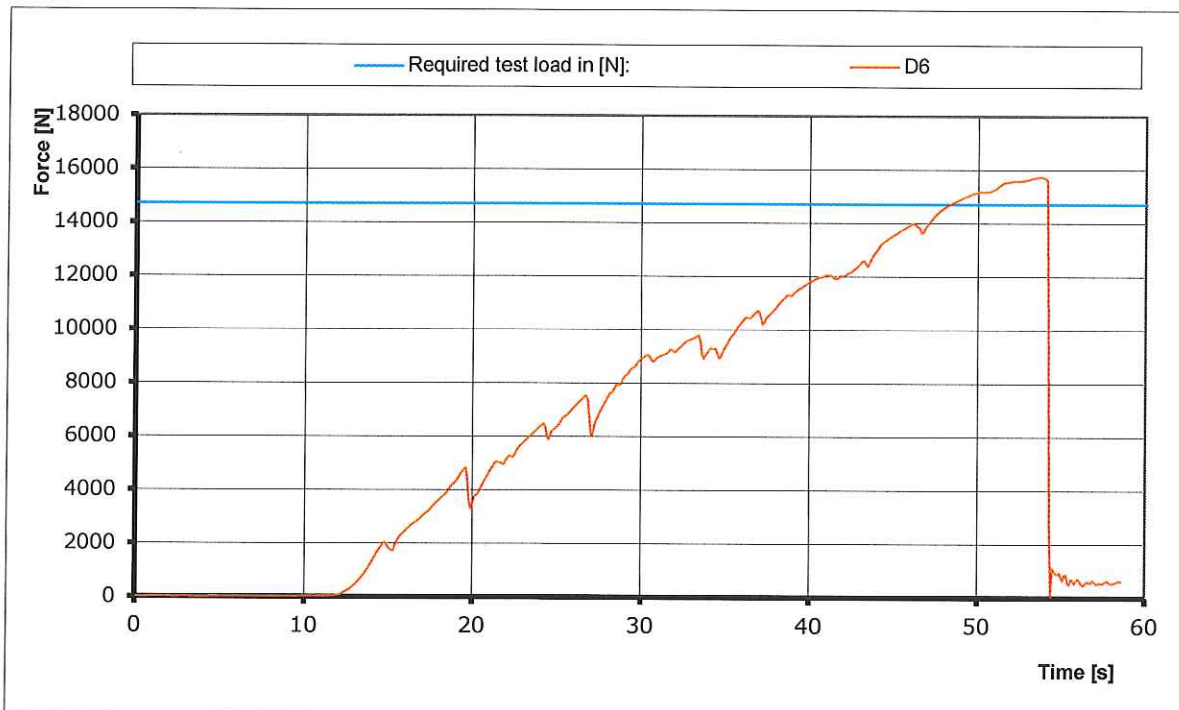
Required test load in [N]: **14715**

Min. duration [s]: **5**



Results

Duration of maintained min. load [s]: **5.60** [C°] **21.7**
 Any signs of structural failure after this test: **no failure** RH [%] **40**
 Test result: **POSITIVE** [hPa] **1010**
 Graph: **D6**



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywate	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH ID 8

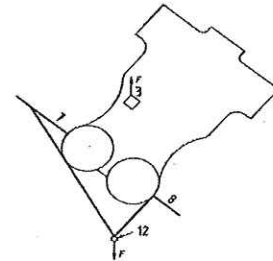
PH PARAGLIDER HARNESSSES

Inspection certificate number: **PH_175.2016**
 Manufacturer name: **Supair Sàrl**
 Name: **Strike**
 Max load [kg] : **100**
 Serial number : **2166-0413-MM-EI**
 Test place & date: **Villeneuve**
 Test responsible: **Alain Zoller**
 Directives: **EN 1651:1999**

Test standard §: **5.3.2.3**

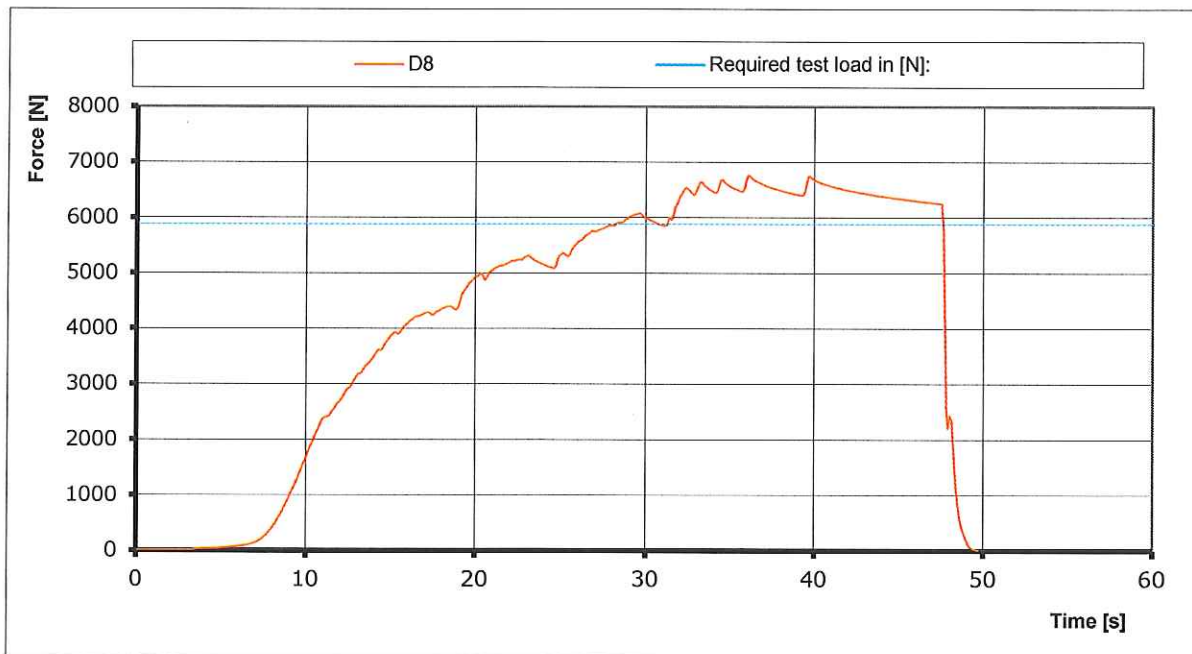
Test setup: **Only one riser attached**

Anchoring: Attachment points: **One main riser attachments (3)**
 Dummy: **Hip fixed (7, 8 -> 12)**
 Required load in force [g] : **6**
 Model max load [kg]: **100**
 Required test load in [N]: **5886**
 Min. duration [s]: **10**



Results

Duration of maintained min. load [s]: **16.31** [C°] **21.7**
 Any signs of structural failure after this test: **no failure** RH [%] **40**
 Test result: **POSITIVE** [hPa] **1010**
 Graph: **D8**



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywac	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH ID 10

PH PARAGLIDER HARNESSSES

Inspection certificate number: PH_175.2016

Manufacturer name: Supair Sàrl

Name: Strike

Max load [kg] : 100

Serial number : 2166-0413-MM-EI

Test place & date: Villeneuve

Test responsible: Alain Zoller

Directives: EN 1651:1999

Test standard §: 5.3.2.6

Test setup: Normal flying position in NEGATIF

Anchoring:

Attachment points: ONE of the main riser attachments attached downwards(3 or 4);

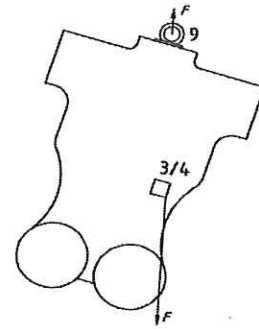
Dummy: Dummy anchored at the head position (9)

Required load in force [g] : 4.5

Model max load [kg]: 100

Required test load in [N]: 4415

Min. duration [s]: 10



Results

Duration of maintained min. load [s]: 15.85

[C°] 21.7

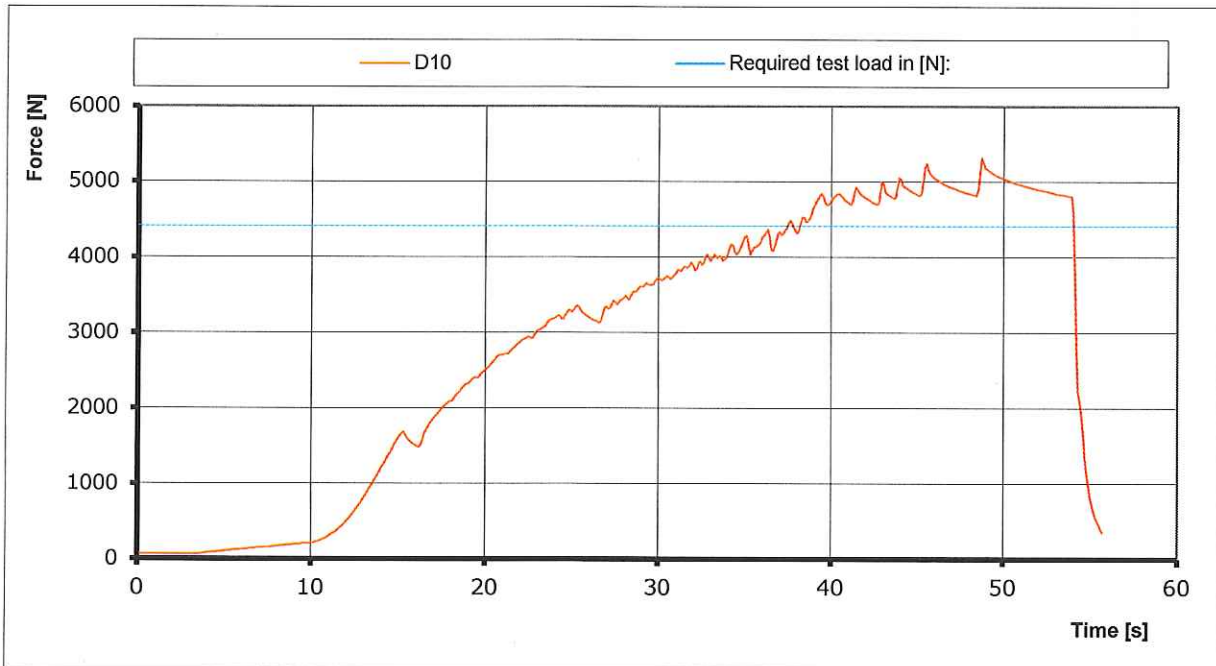
Any signs of structural failure after this test: no failure

RH [%] 40

Test result: POSITIVE

[hPa] 1010

Graph: D10



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n°11 Skywatc	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH **RRDT**

PH PARAGLIDER HARNESSES

Inspection certificate number: **PH_175.2016**

Manufacturer name: **Supair Sàrl**

Name: **Strike**

Max load [kg] : **100**

Serial number : **2166-0413-MM-EI**

Test place & date: **Villeneuve**

Test responsible: **Alain Zoller**

Directives: -

Test standard §: 6.1.5

The deployment of the rescue system has to be ensured in all circumstances, especially with a damaged glider.

The pilot has to be able to deploy the rescue chute with a single pull out of the outer container, single handed and in an anatomical favorable direction.

In order to simulate this, the test responsible deploys the rescue seated in the harness. In a similar way as in real flight. The deployment resistance is approximately measured by the load cell, which is placed between the hand of the test responsible and the rescue hand grip.

On the other hand inadvertent deployment has to be fairly remote. Therefore a shear link has to withstand a minimum load.

Requirements [kN]: **0.07**

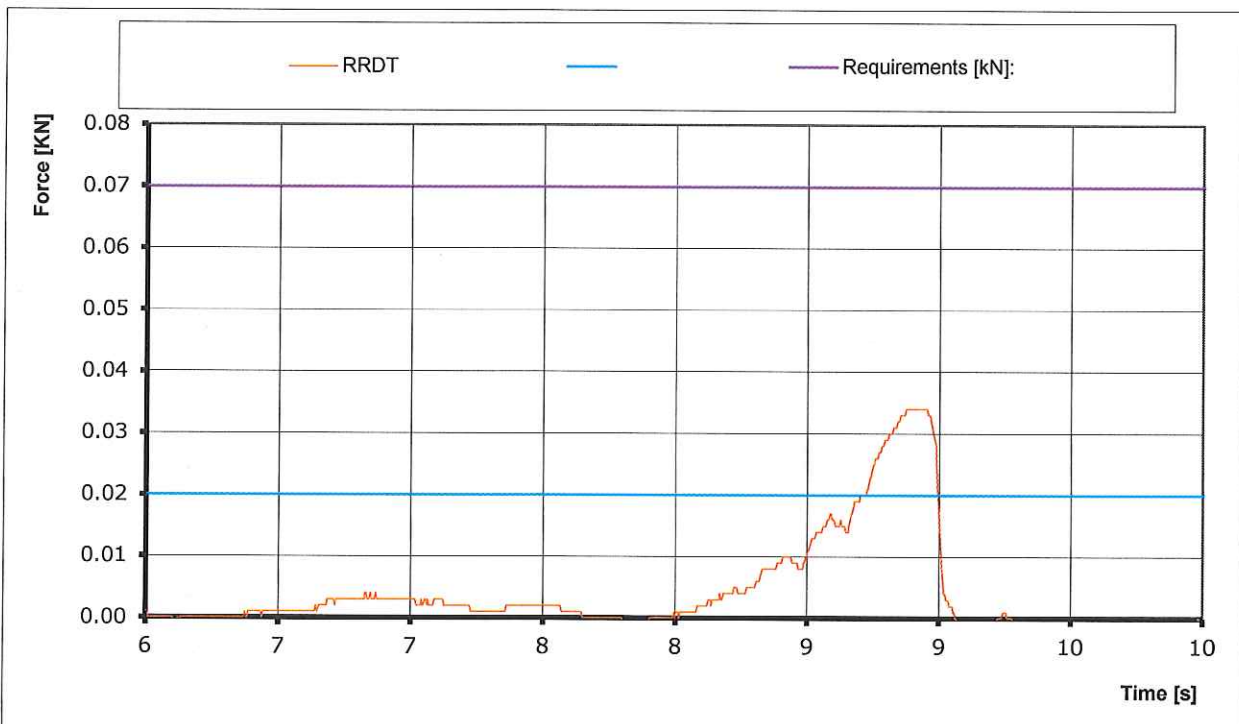
Min force to prevent unwanted opening [kN]: **0.02**

Measured peak to peak required force for deployment [kN]:

Test result 20 [N]: **POSITIVE** [C°] **21.7**

Test result 70 [N]: **POSITIVE** RH [%] **40**

Graph: **RRDT** [hPa] **1010**



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load Cell (axial)	01.08.2018	Burster / MTS	1-S9M/50KN-1	8431-10000
Geos n°11 Skywatch	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1

HARNES STRUCTURAL STRENGHT TEST

TEST REPORT PH **RRST**

PH PARAGLIDER HARNESSES

Inspection certificate number: **PH_175.2016**

Manufacturer name: **Supair Sàrl**

Name: **Strike**

Max load [kg] : **100**

Serial number : **2166-0413-MM-EI**

Test place & date: **Villeneuve**

Test responsible: **Alain Zoller**

Directives: EN 12491:2001

Test standard §: 5.3.2 (EN)

Test setup: The handgrip of the outer container has to be connected to the inner container with a removable loop in a way that it is possible to use the inner container with different types of outer containers.

The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal operation.

In order to verify this, the connection is tested on its tensile strength by a default tensile testing setup.

In addition to this the breaking resistance will also be measured.

Requirements[kN]: **0.7**

Requirements[s]: **10**

Results

Duration of maintained load [s]: **14.32**

[C°] **21.7**

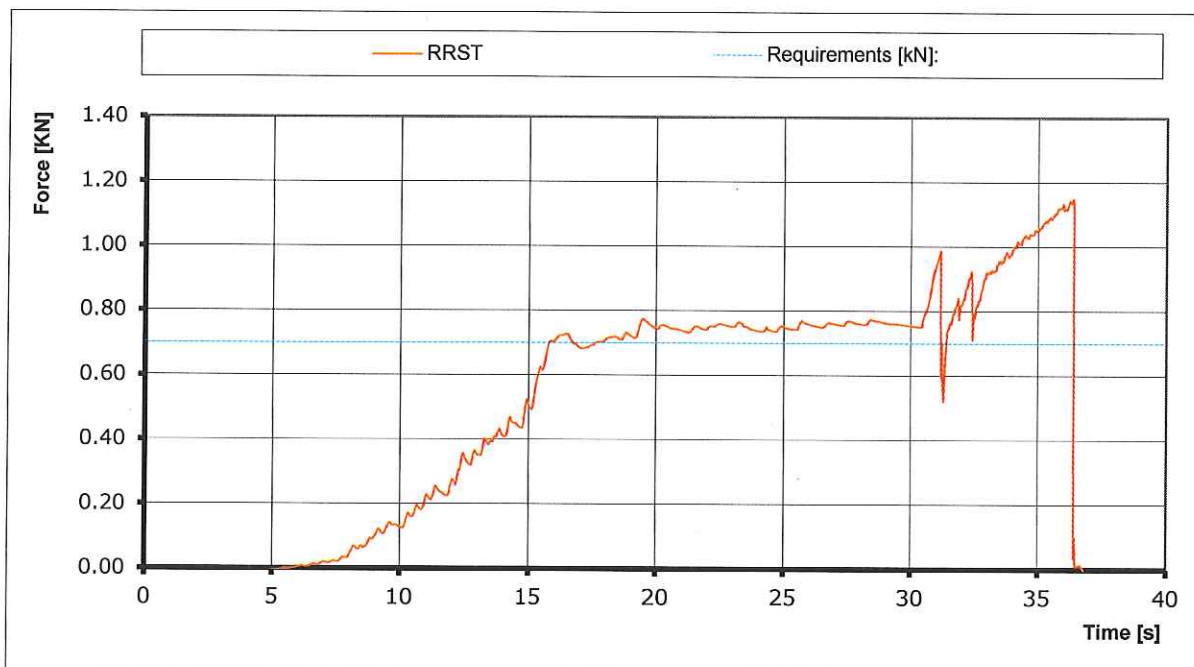
Calculated max value of breaking resistance [kN]: **1.15**

RH [%] **40**

Test result: **POSITIVE**

[hPa] **1010**

Graph: **RRST**



Instruments	Validity calibration	Manufacturer	Type nr.	S/N
Load Cell (axial)	01.08.2018	Burster / MTS	1-S9M/50KN-1	8431-10000
Geos n°11 Skywatch	07.04.2017	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 71.9.1