

# DECLARATION of CONFIRMITY

## PARAGLIDERS HARNESS

PH

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

European Standard EN12491 September 2001

Airworthiness requirements for hang gliders and paragliders LTF 2009 as published in NFL 91/09

Declaration conformity number: PH\_138.2015

### TEST SAMPLE DATA

Manufacturer name: SUPAIR sàrl  
Contact person: Laurent Chiabaut  
Street: 34, rue Adrastée  
Post code / place: 74650 Chavanod  
Country: France

Harness manufacturer name: VIP 2  
Harness manufacturer size: n/a  
Serial number of the test sample: VIP2-TU-20150324-EI  
Harness type: ABS  
Maximum certified pilot weight (kg): 120  
Harness protector type: Airbag  
Harness weight (kg) : 2.68

Volume reserve parachute container (cm3) Min: n/a Max: n/a

Atmosphere [°C] [Hum] [hPa]: 23.4;50;1017.7

Test responsible: Alain Zoller  
Inspection place: Villeneuve  
Sample reception date: 06.05.2015

Place of declaration: Villeneuve

Date of issue: 24.05.2015

Director management: Alain Zoller

Signature: 

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.

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Declaration conformity number: **PH\_138.2015**

**A. STRUCTURAL STRENGTH TESTS**

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	LTF		Attach -ment points	Dummy	Req. Load in g	Min. force [N]		
R0	✓	5.3.2.1		Default flying position	2 main attachment points	Hip fixated	6g	6000	10	POSITIV
R1	✓		4.2.1.a				9g	9000		POSITIV
R2	✓	5.3.2.2					15g	15000	5	POSITIV
R3	✓		4.2.1.b	Default, landing position	2 main att. points	Hip fixated,	6g	6000	10	POSITIV
R4	✓	5.3.2.7				landing conf.	15g	15000	5	POSITIV
R5			4.2.1.a rescue	Rescue	2 rescue att. Pnts.	Hip fixated	9g	9000	10	n/a
R6		5.3.2.4					15g	15000	5	n/a
R7			4.2.1.b rescue				Rescue, landing	Hip fixated, landing conf.	6g	6000
R8	✓	5.3.2.3		One riser	ONE main att.	1 central hip fixation	6g	6000	10	POSITIV
R9			4.2.1.d	Towing	2 main att. + 2 tow att.	None	3g	3000	10	n/a
		5.3.2.5					5g	5000		
R10	✓	5.3.2.6		Default, Negatif	One main att.	Head fix.	4.5g	4500	10	POSITIV
R11	✓		4.2.1.c	Upside down	2 main att. downw.	Head fix.	6g	6000	10	POSITIV
R12			4.2.1.c rescue	Upside down rescue	2 rescue att. downw.		6g	6000	10	n/a

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### B. PARAGLIDER HARNESS BACK PROTECTORS

Shock impact tests have to be executed on these harnesses in order to prove the damping characteristics of it. Most paraglider harnesses are equipped with a protection device that damps the shock on the pilot's spine during a hard landing

Test ID	TESTED ?	Standard Ref.:	TEST setup	Anchoring		Impact				Result	
		LTF		Attach-ment points	Dummy	Max. tolerated peak impact in g	Max Peak impact measured	Impact duration of +38 g (if any) recorded:	Impact duration of +20 g (if any) recorded:		
<b>PRO</b>		5.1.1	<b>Default flying position</b>	Test dummy is attached to the harness like a pilot in flight. +20-25°			+50g				n/a
<b>TECT</b>											
<b>1</b>											
<b>PRO</b>		5.1.1	<b>Default flying position</b>	Test dummy is attached to the harness like a pilot in flight. +20-25° with rescue			+50g				n/a
<b>TECT</b>											
<b>1</b>											
<b>PRO</b>		5.1.1	<b>Default flying position</b>	Test dummy is attached to the harness like a pilot in flight. -5-10°			+50g				n/a
<b>TECT</b>											
<b>1</b>											
<b>PRO</b>		5.1.1	<b>Default flying position</b>	Test dummy is attached to the harness like a pilot in flight. -5-10° with rescue			+50g				n/a
<b>TECT</b>											
<b>1</b>											

### C. RESCUE DEPLOYMENT RESISTANCE TEST

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
		LTF		Attach-ment points	Dummy	Min. force	Max. force	Resistance measured [N]	
						[N]	[N]		
<b>RRDT</b>	✓	6.1.5	<b>Default flying position</b>	Test responsible is attached to the harness like a pilot in flight. (no dummy required)		20 N	70 N	-17.0	POSITIV

### D. RESCUE DEPLOYMENT STRAP STRENGTH TEST

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. Test duration	Breaking resistance measured [N]	Result
		LTF	EN 12491			[s]		
<b>RRST</b>	✓	6.1.8	5.3.2	<b>Connection strap in tensile testing machine</b>	700N	10	-17.0	POSITIV

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End of declaration

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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 0**

**Manufacturer name:** SUPAIR sàrl

**Harness manufacturer name:** VIP 2

**Test place & date:** Villeneuve

**Test responsible:** Alain Zoller

**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7

**Maximum certified pilot weight [kg]:** 120

**Standard** EN 1651

**Test standard §:** 5.3.2.1 (EN)

**Test setup:** Default flying position

**Anchoring:**

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

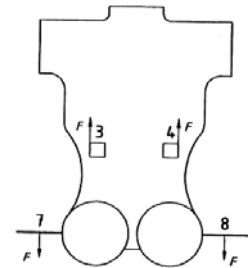
**Dummy:** Default, hip fixed (7, 8)

**Required load in g :** 6

**Minimum load [N]:** 6000

**Required test load in kg:** 734

**Min. duration [s]:** 10



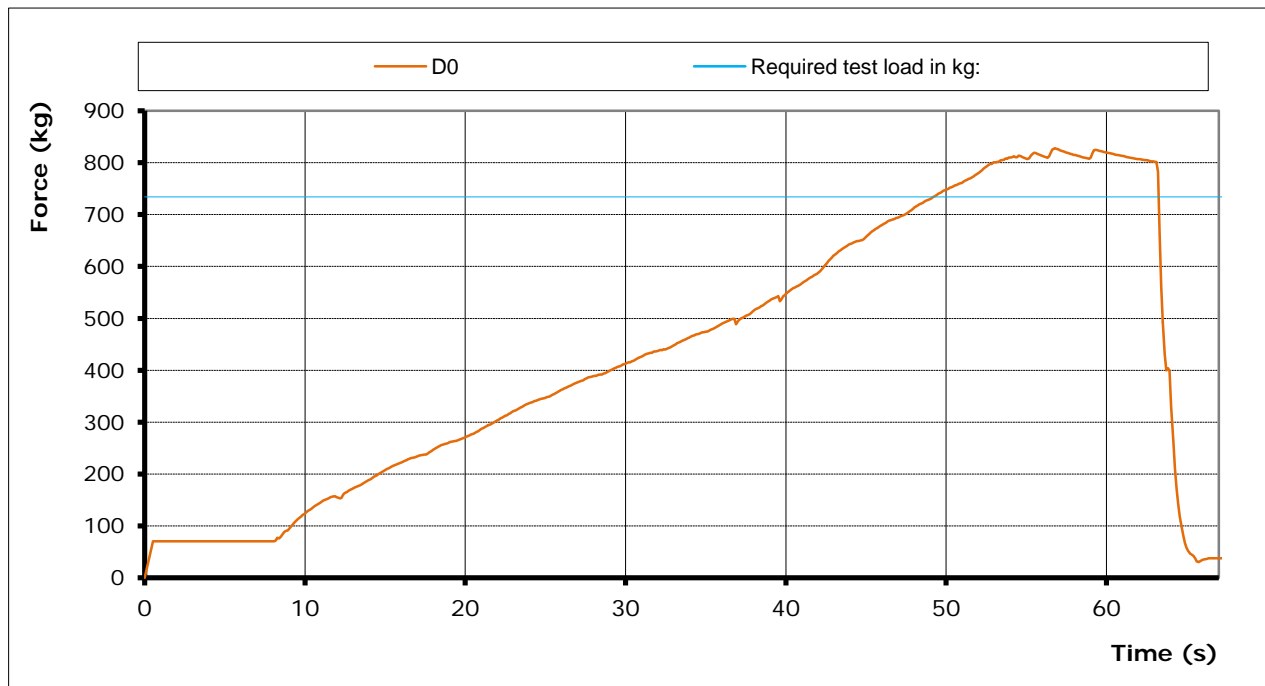
### Results

**Duration of maintained min. load [s]:** 10.21

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D0



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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 1**

**Manufacturer name:** SUPAIR sàrl

**Harness manufacturer name:** VIP 2

**Test place & date:** Villeneuve

**Test responsible:** Alain Zoller

**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7

**Maximum certified pilot weight [kg]:** 120

**Standard** NfL II 91 / 09

**Test standard §:** 4.2.1 a (LTF DV)

**Test setup:** Default flying position

**Anchoring:**

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

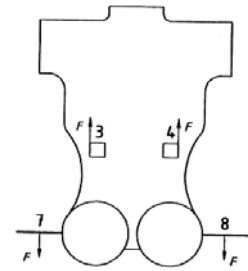
**Dummy:** Default, hip fixed (7, 8)

**Required load in g :** 9

**Minimum load [N]:** 9000

**Required test load in kg:** 1101

**Min. duration [s]:** 10



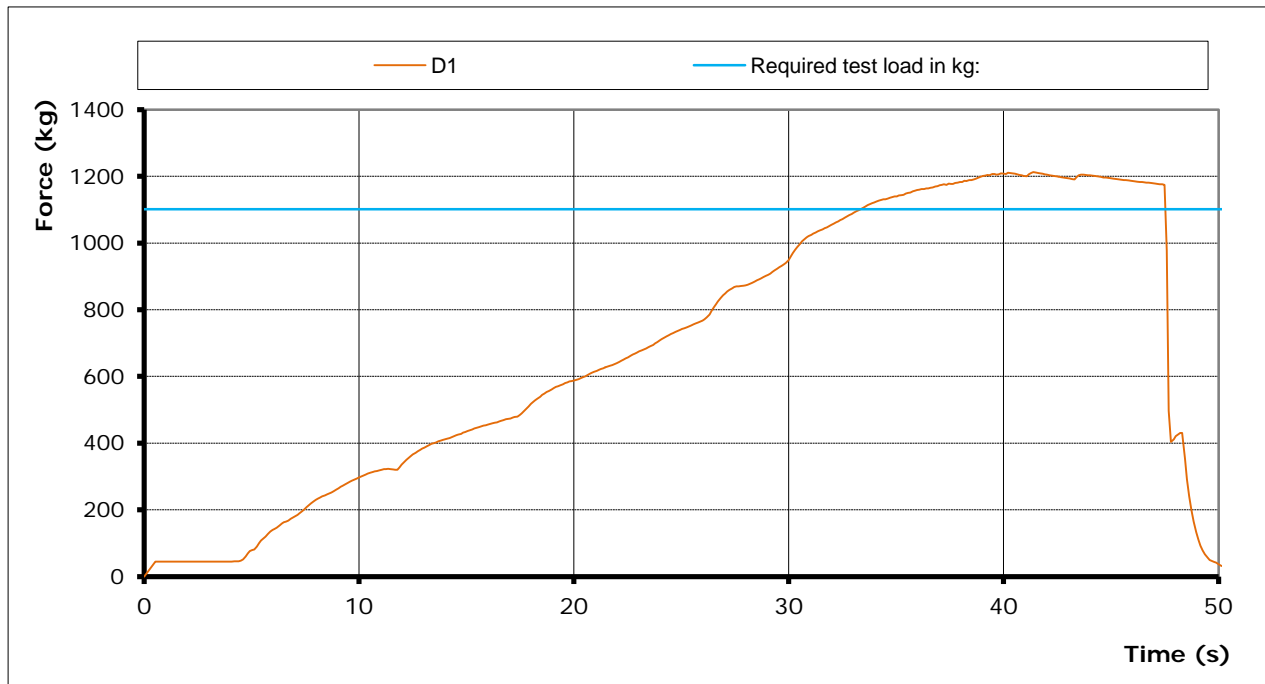
### Results

**Duration of maintained min. load [s]:** 10.92

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D1



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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 2**

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

### Standard EN 1651

**Test standard §:** 5.3.2.2

**Test setup:** Default flying position

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

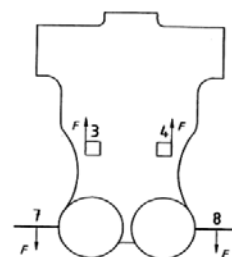
**Dummy:** Default, hip fixed (7, 8)

**Required load in g:** 15

**Min load [N]:** 15 000

**Required test load in kg:** 1835

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



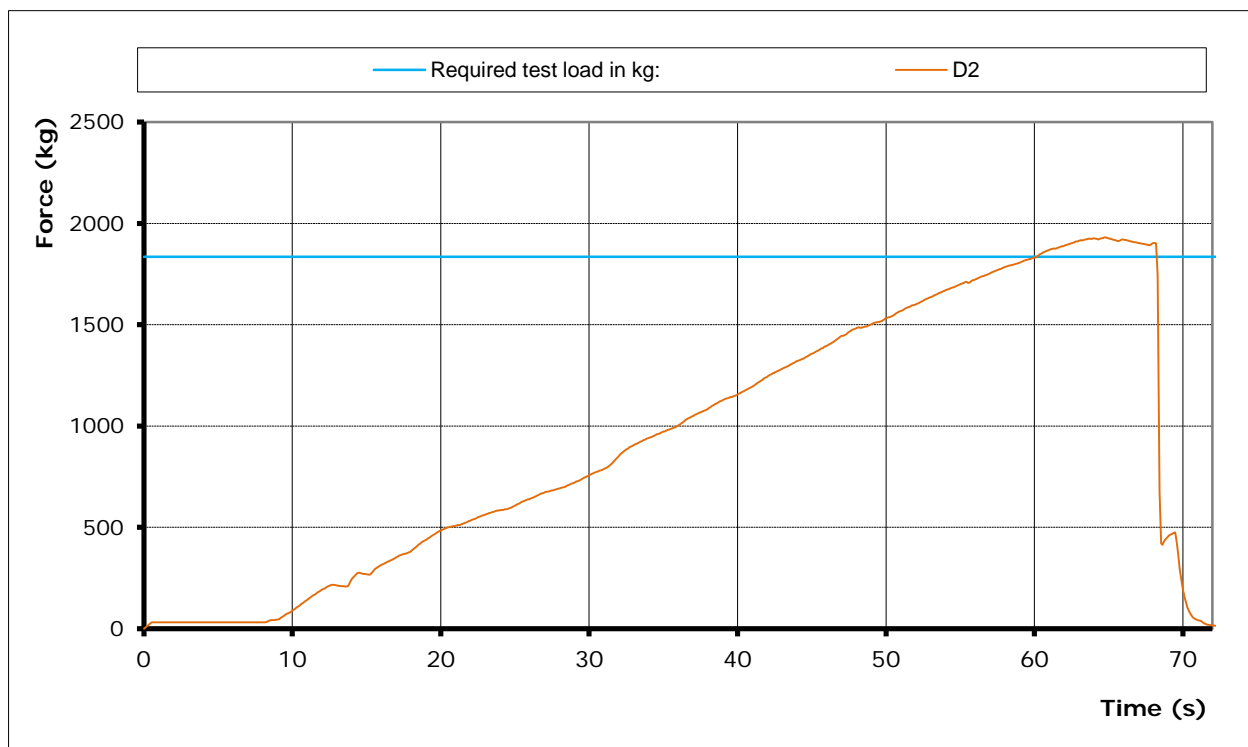
### Results

**Duration of maintained min. load [s]:** 5.12

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D2



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## HARNESS STRUCTURAL STRENGTH TEST

Test ID 3

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

**Standard** NfL II 91 / 09

**Test standard §:** 4.2.1.b

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

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

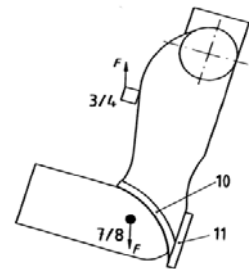
**Dummy:** Default, hip fixed (7, 8)

**Required load in g:** 6

**Min load [N]:** 6000

**Required test load in kg:** 734

**Min. duration [s]:** 10



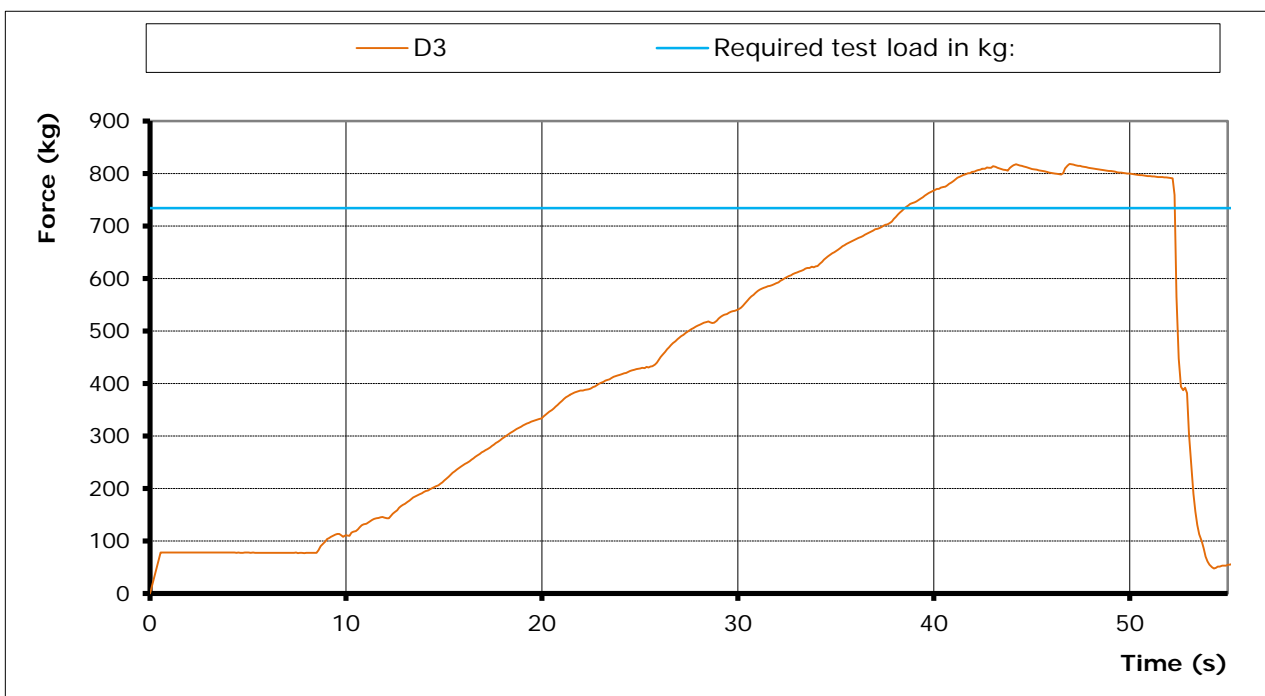
### Results

**Duration of maintained min. load [s]:** 10.54

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D3



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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 4**

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

**Standard** EN 1651

**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);

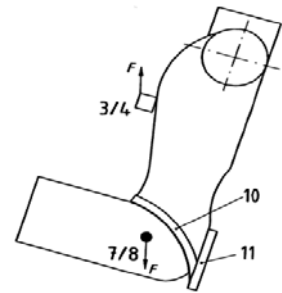
**Dummy:** Default, hip fixed (7, 8)

**Required load in g:** 15

**Min load [N]:** 15000

**Required test load in kg:** 1835

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



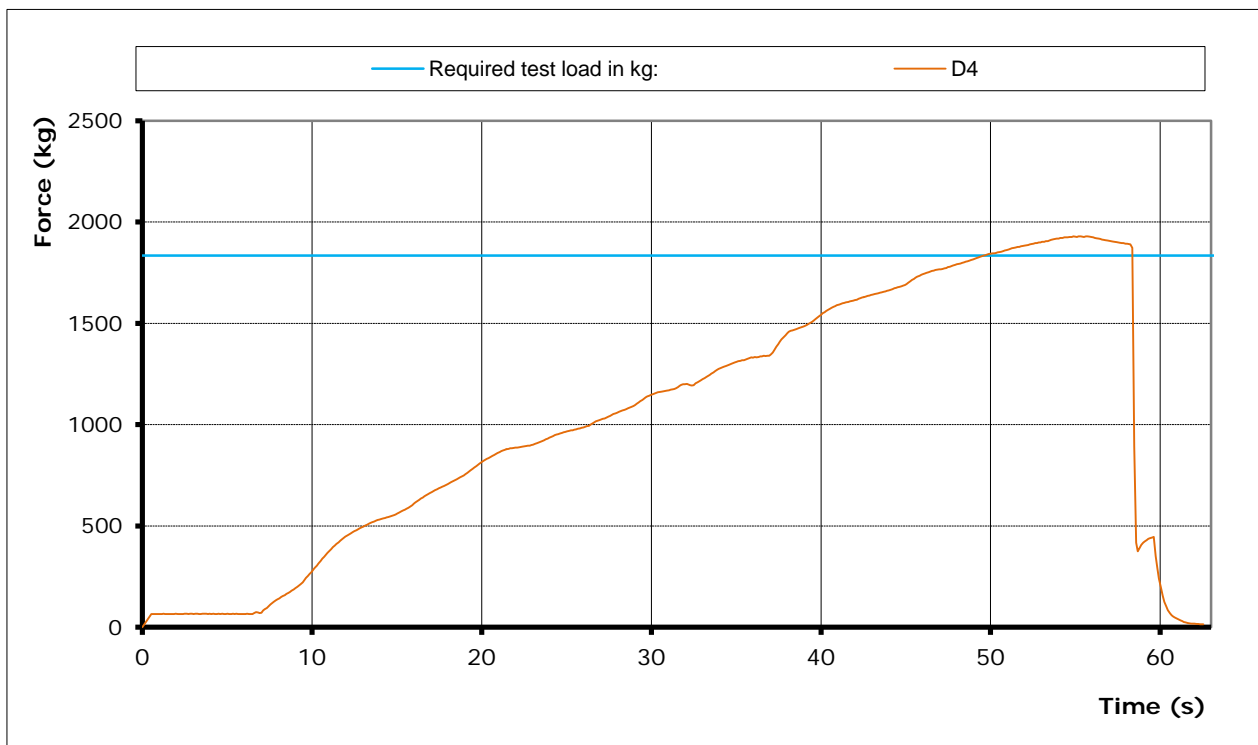
### Results

**Duration of maintained min. load [s]:** 5.36

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D4





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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 8**

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

**Standard** EN 1651

**Test standard §:** 5.3.2.3

**Test setup:** Only one riser attached

**Anchoring:**

**Attachment points:** One main riser attachments (3)

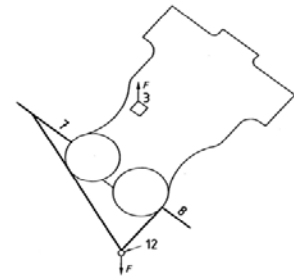
**Dummy:** Hip fixed (7, 8 -> 12)

**Required load in g:** 6

**Min load [N]:** 6000

**Required test load in kg:** 734

**Min. duration [s]:** 10



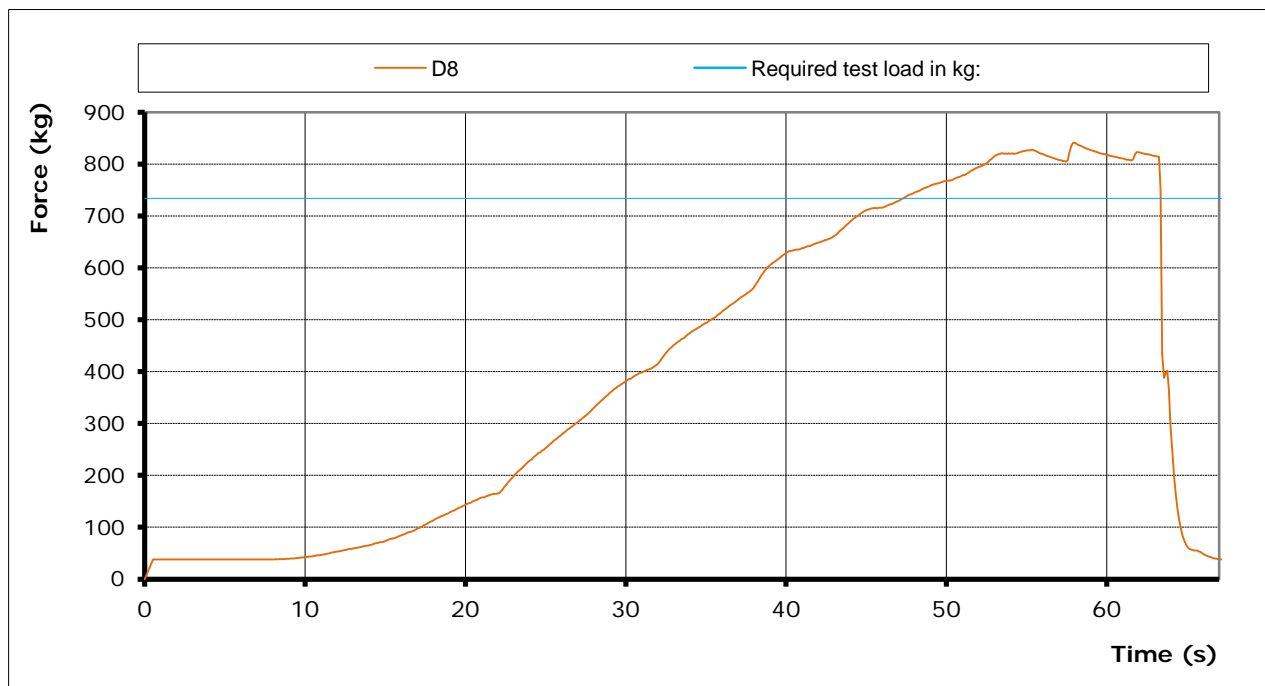
### Results

**Duration of maintained min. load [s]:** 12.37

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D8



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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 10**

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

**Standard** EN 1651

**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);

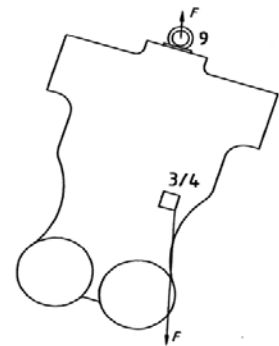
**Dummy:** Dummy anchored at the head position (9)

**Required load in g:** 4.5

**Min load [N]:** 4500

**Required test load in kg:** 550

**Min. duration [s]:** 10



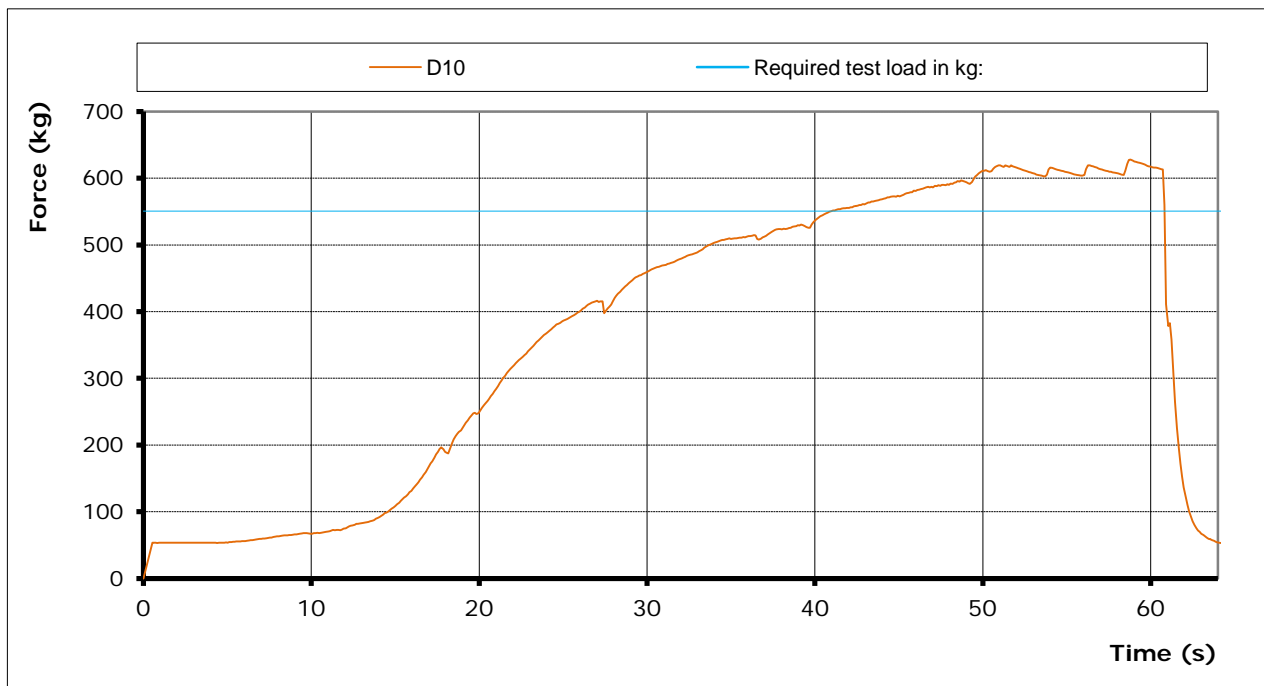
### Results

**Duration of maintained min. load [s]:** 10.63

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D10



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## HARNESS STRUCTURAL STRENGTH TEST

**Test ID 11**

**Manufacturer name:** SUPAIR sàrl  
**Harness manufacturer name:** VIP 2  
**Test place & date:** Villeneuve  
**Test responsible:** Alain Zoller  
**Atmosphere [°C] [Hum] [hPa]:** 23.4;50;1017.7  
**Maximum certified pilot weight [kg]:** 120

**Standard** NfL II 91 / 09

**Test standard §:** 4.2.1.c

**Test setup:** Pilot upside down flying position

**Anchoring:**

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

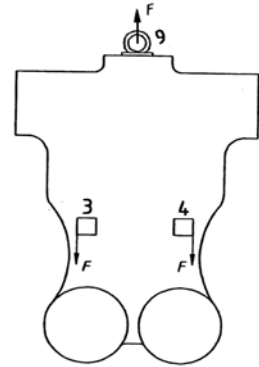
**Dummy:** Dummy anchored at the head position (9)

**Required load in g:** 6

**Min load [N]:** 6000

**Required test load in kg:** 734

**Min. duration [s]:** 10



### Results

**Duration of maintained min. load [s]:** 10.92

**Any signs of structural failure after this test:** No visible failure

**Test result:** POSITIV

**Graph:** D11

