

# Harness Structural test Report

Inspection certificate number: **PH\_271.2019**
**Manufacturer data:**

Manufacturer name: **DLCO**  
 Representative: **Thomas Bourdeau**  
 Street: **Le villaret**  
 Post code place: **05120 ST MARTIN DE QUEYRIERES**  
 Country: **France**

**Sample data:**

Name: **Butterfly**  
 Type: **ABS**  
 Size: **Unique**  
 Serial number: **001**  
 Impact pad type: <sup>(1)</sup> **n/a**  
 Clip-in weight [kg]: **100**  
  
 Date of test: **16.04.2019**

**Atmosphere AGL:**

[C°]	<b>20</b>
RH [%]	<b>32</b>
[hPa]	<b>973.6</b>

**Summary of Structural test**

Test id	- EN 1651	Setup	Req. Load [g]	Req. Load [N]	Min. duration [s]	Result
R0	✓ 5.3.2.1	Default flying position	6	6000	10	<b>POSITIVE</b>
R2	✓ 5.3.2.2	Default flying position	15	15000	5	<b>POSITIVE</b>
R4	✓ 5.3.2.7	Flying position before landing	15	15000	5	<b>POSITIVE</b>
R6	5.3.2.4	Rescue attachments	15	15000	5	<b>n/a</b>
R8	✓ 5.3.2.3	Asymmetric, one riser	6	6000	10	<b>POSITIVE</b>
R9	5.3.2.5	Towing	5	5000	10	<b>n/a</b>
R10	✓ 5.3.2.6	Asymmetric, negative	4.5	4500	10	<b>POSITIVE</b>

**Rescue deployment test**

Test id	- NfL II 91/09	Setup	Min load [N]	Max. load [N]	Measured [N]	Result
RRDT	6.1.5	Default flying position	20	70	<b>0.00</b>	<b>n/a</b>

**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	<b>0.00</b>	<b>n/a</b>

Manufacture	Instrument	Type no	S/N	Validity Calibration
HBM	Load Sensor GE01	1-S9M/50KN-1	31314643	04.09.2023
Burster	Sensor Burster	8431-10000	1185483	04.09.2023
JDC elec	Geos n°11 Skywatch	Geos n°11	22	08.05.2020

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 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%.

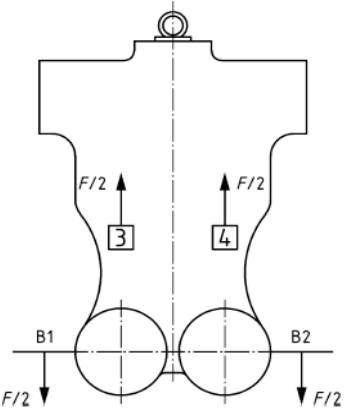
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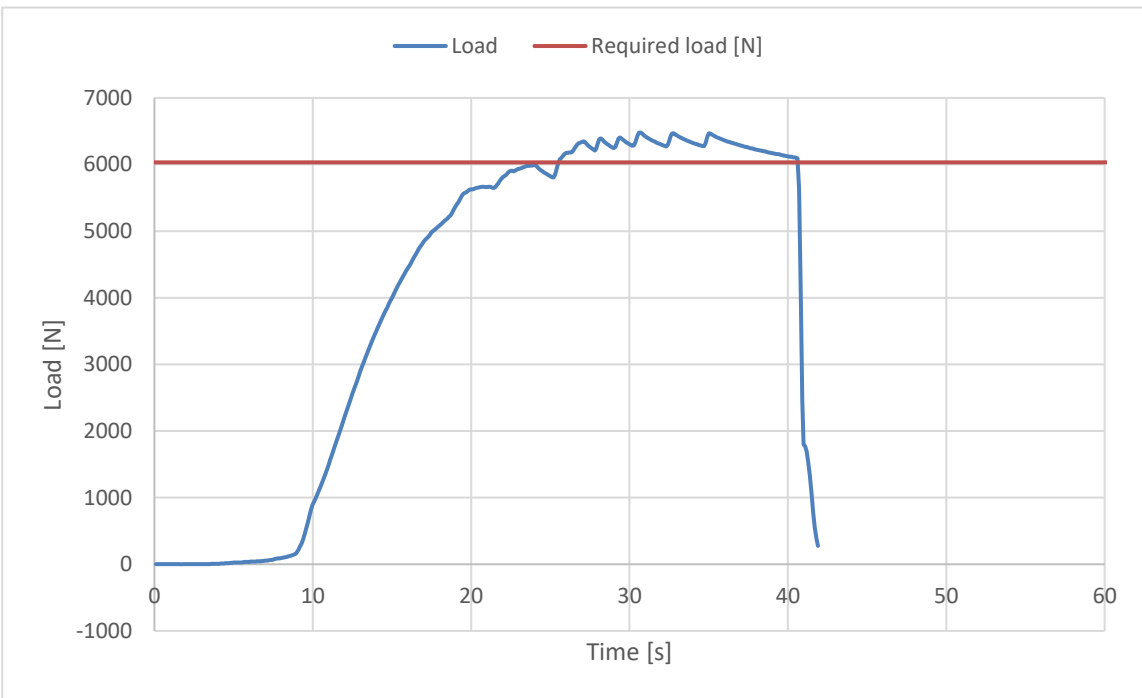
Inspection certificate number: **PH\_271.2019**

model: **Butterfly Unique**

**Harness Structural test**

**Test ID R0**

Standard	<b>EN 1651:1999</b>	
Reference in standard	<b>5.3.2.1</b>	
Test setup	<b>Default flying position</b>	
Attachment points	<b>Both main riser attachment (3,4)</b>	
Anchor points	<b>Dummy (B1, B2)</b>	
Required load [g]	<b>6</b>	
Required load [N]	<b>6000</b>	
Minimum test duration [s]	<b>10</b>	
<b>Result</b>		
Test duration [s]	<b>15.1</b>	
Any signs of structural failure	<b>No</b>	
Test results	<b>POSITIVE</b>	



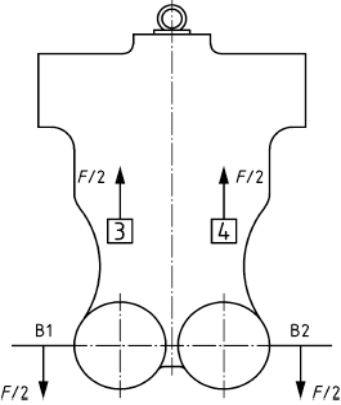
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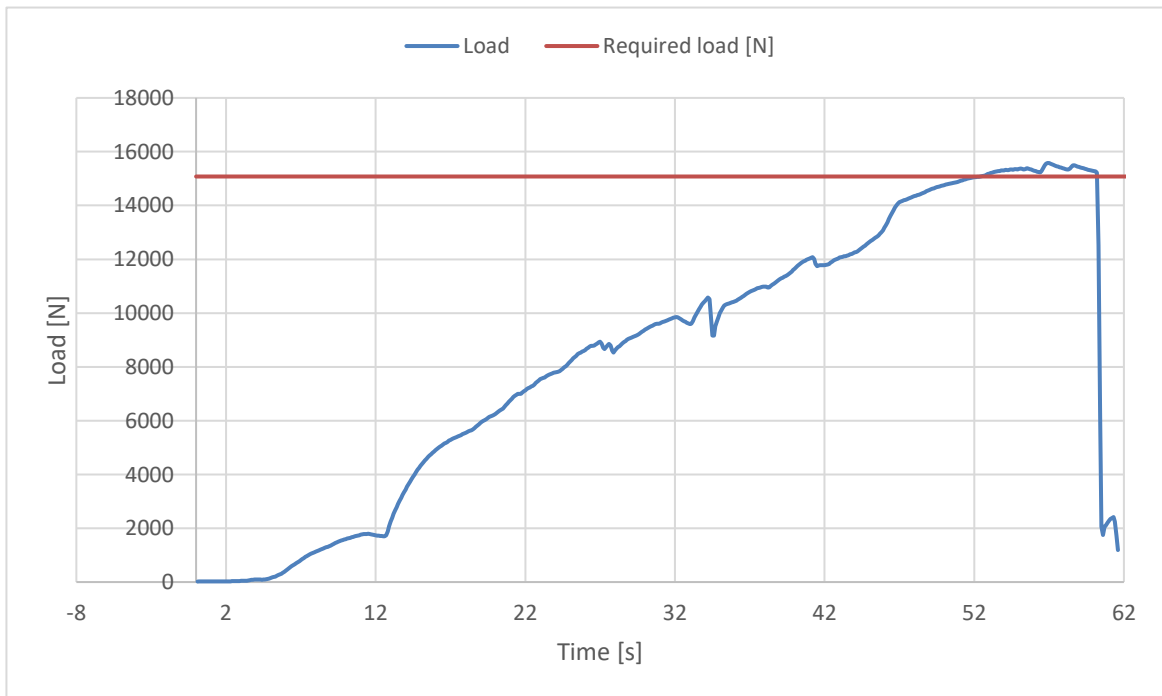
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model: **Butterfly Unique**

**Harness Structural test**

**Test ID R2**

Standard	<b>EN 1651:1999</b>	
Reference in standard	<b>5.3.2.2</b>	
Test setup	<b>Default flying position</b>	
Attachment points	<b>Both main riser attachment (3,4)</b>	
Anchor points	<b>Dummy (B1, B2)</b>	
Required load [g]	<b>15</b>	
Required load [N]	<b>15000</b>	
Minimum test duration [s]	<b>5</b>	
<b>Result</b>		
Test duration [s]	<b>7.8</b>	
Any signs of structural failure	<b>No</b>	
Test results	<b>POSITIVE</b>	



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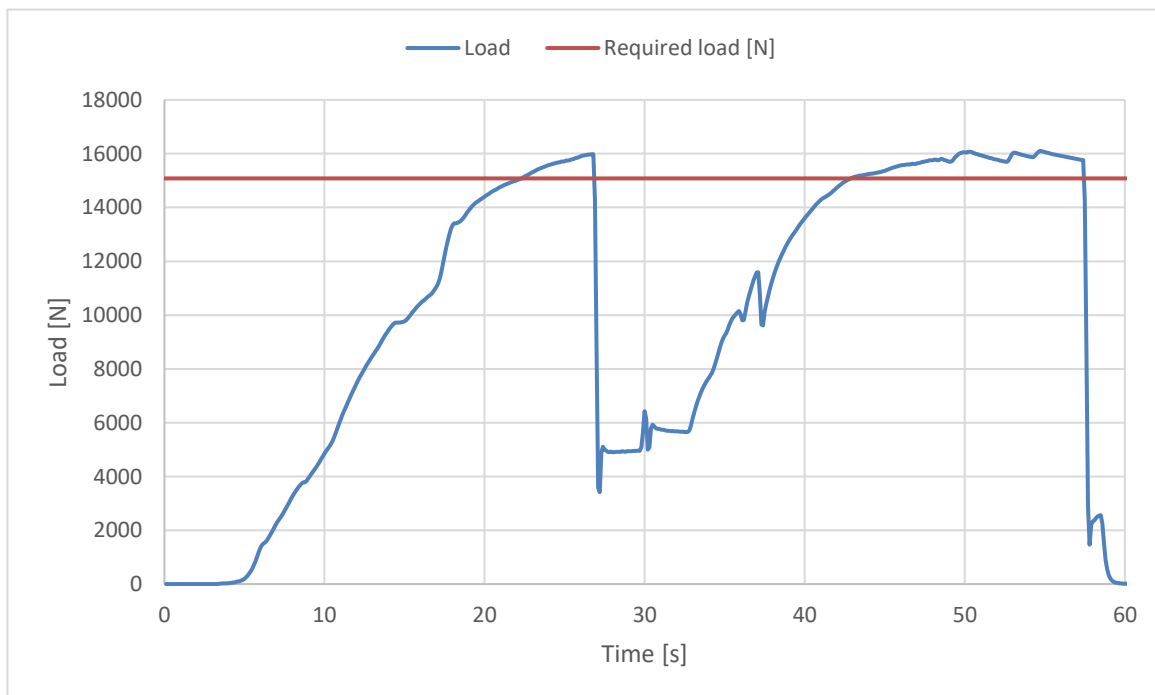
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model: **Butterfly Unique**

**Harness Structural test**

**Test ID R4**

Standard	<b>EN 1651:1999</b>
Reference in standard	<b>5.3.2.7</b>
Test setup	<b>Flying position before landing</b>
Attachment points	<b>Both main riser attachment (3,4)</b>
Anchor points	<b>Dummy (7,8)</b>
Required load [g]	<b>15</b>
Required load [N]	<b>15000</b>
Minimum test duration [s]	<b>5</b>
<b>Result</b>	
Test duration [s]	<b>14.6</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>



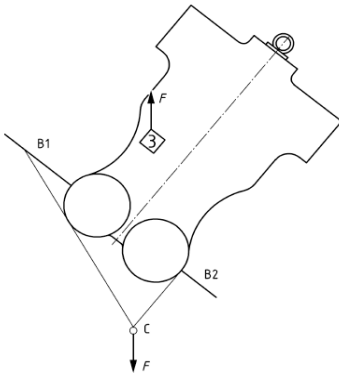
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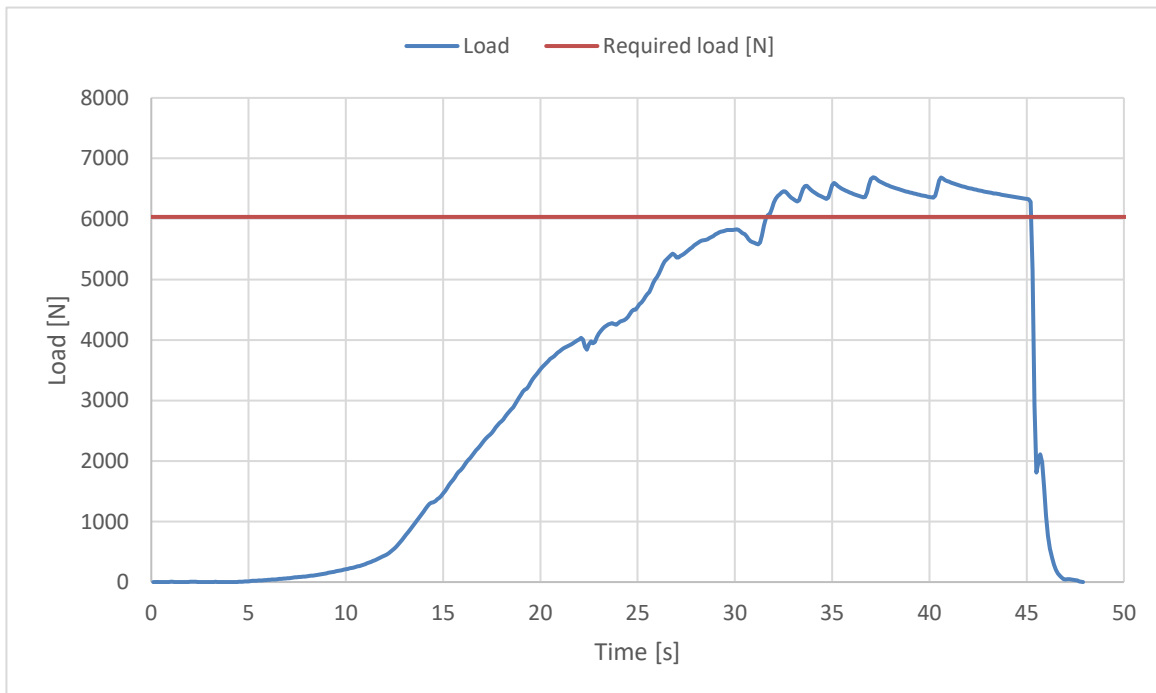
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model: **Butterfly Unique**

**Harness Structural test**

**Test ID R8**

Standard	<b>EN 1651:1999</b>	
Reference in standard	<b>5.3.2.3</b>	
Test setup	<b>Asymmetric, one riser</b>	
Attachment points	<b>One main riser attachment (3)</b>	
Anchor points	<b>Dummy (B1,B2)</b>	
Required load [g]	<b>6</b>	
Required load [N]	<b>6000</b>	
Minimum test duration [s]	<b>10</b>	
<b>Result</b>		
Test duration [s]	<b>13.6</b>	
Any signs of structural failure	<b>No</b>	
Test results	<b>POSITIVE</b>	



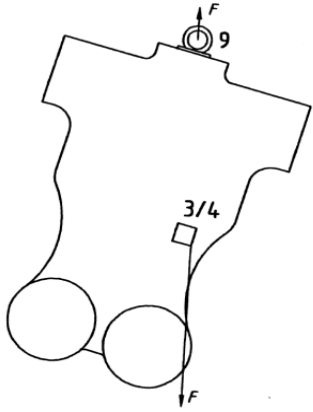
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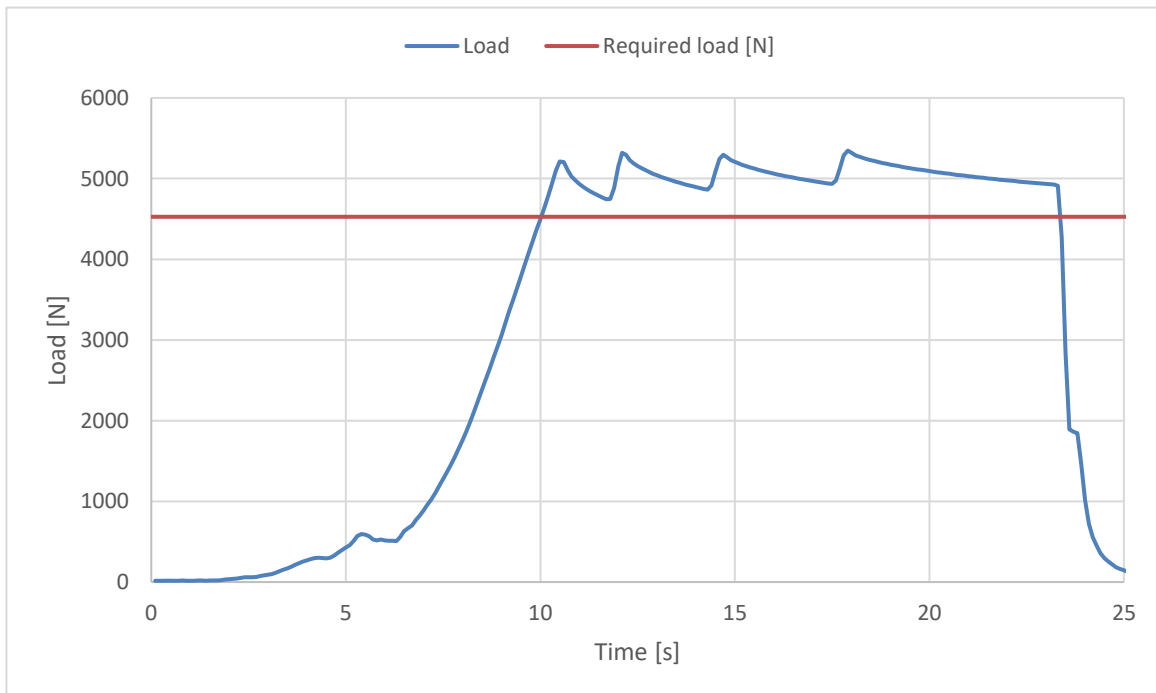
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model: **Butterfly Unique**

**Harness Structural test**

**Test ID R10**

Standard	<b>EN 1651:1999</b>	
Reference in standard	<b>5.3.2.6</b>	
Test setup	<b>Asymmetric, negative</b>	
Attachment points	<b>One main riser attachment (3 or 4) downwards</b>	
Anchor points	<b>Dummy (9)</b>	
Required load [g]	<b>4.5</b>	
Required load [N]	<b>4500</b>	
Minimum test duration [s]	<b>10</b>	
<b>Result</b>		
Test duration [s]	<b>13.3</b>	
Any signs of structural failure	<b>No</b>	
Test results	<b>POSITIVE</b>	



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