

## Harness Structural test Report - NfL

Inspection certificate number: **PH\_360.2022**

### Manufacturer data:

Manufacturer name: **Fly-market Flugsport-Zubehör GmbH & Co**  
 Representative: **Stefan Kurrle**  
 Street: **Am Schönebach 3**  
 Post code place: **87637 Eisenberg**  
 Country: **Germany**

### Sample data:

Name: **A1**  
 Type: **ABS**  
 Size: **M**  
 Serial number: **A1-002**  
 Impact pad type: <sup>(1)</sup> **Foam**  
 Clip-in weight [kg]: **130**  
 Integrated container: **Yes**

Date of test: **03.08.2021**

### Atmosphere AGL:

|        |             |
|--------|-------------|
| [C°]   | <b>23</b>   |
| RH [%] | <b>50</b>   |
| [hPa]  | <b>1005</b> |

### Summary of Structural test

| Test id | - Ref.    | Setup                          | Req. Load [g] | Req. Load [N] | Min. duration [s] | Result   |
|---------|-----------|--------------------------------|---------------|---------------|-------------------|----------|
| 02      | ✓ 5.3.2.1 | Default flying position        | 6             | 7800          | 10                | POSITIVE |
| 03      | ✓ 5.3.2.2 | Default flying position        | 15            | 19500         | 5                 | POSITIVE |
| 04      | ✓ 5.3.2.3 | Asymmetric, one riser          | 6             | 7800          | 10                | POSITIVE |
| 07      | ✓ 5.3.2.6 | Asymmetric, negative           | 4.5           | 5850          | 10                | POSITIVE |
| 09      | ✓ 5.3.2.4 | Rescue attachments             | 15            | 19500         | 5                 | POSITIVE |
| 13      | ✓ 5.3.2.7 | Flying position before landing | 15            | 19500         | 5                 | POSITIVE |
| 14      | 5.3.2.5   | Towing                         | 5             | 6500          | 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            | 52.65        | POSITIVE |

### 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                | 1994.03               | POSITIVE |

### 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%.

This declaration must not be reproduced in part without the written permission of AIR TURQUOISE SA.

Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

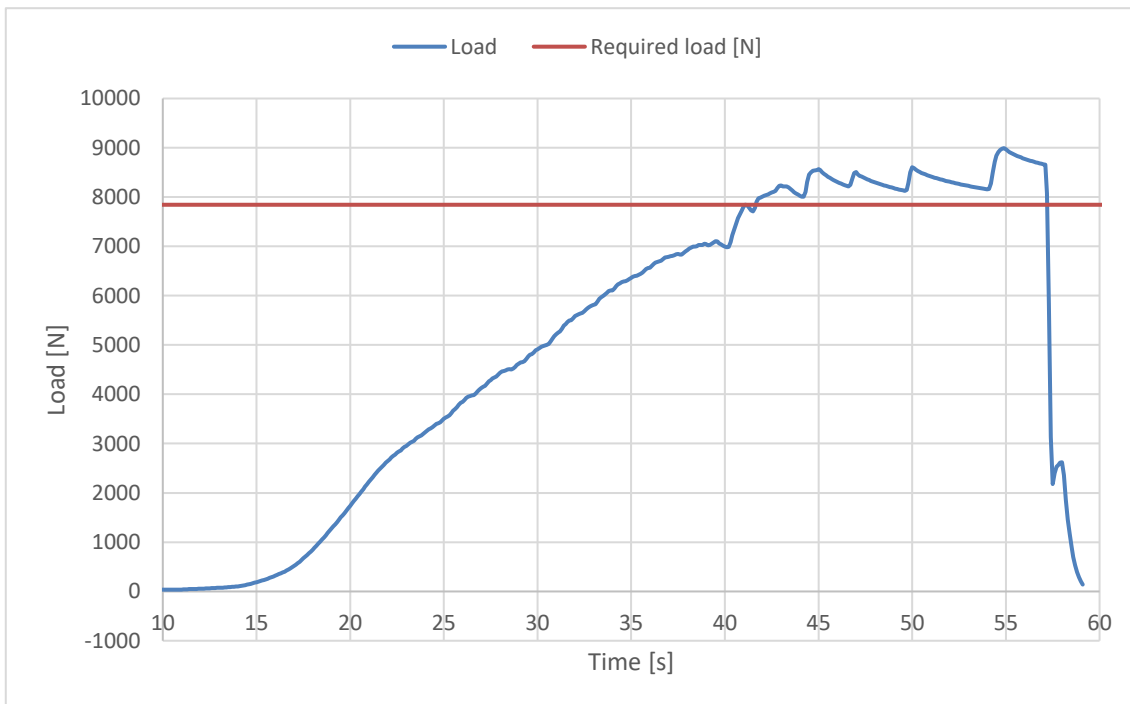
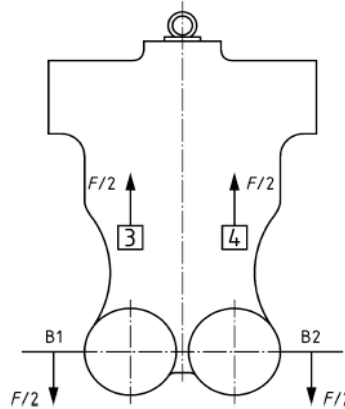
**Test ID 02**

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] **7800**  
 Minimum test duration [s] **10**

**Result**

Test duration [s] **15.6**  
 Any signs of structural failure **No**  
 Test results **POSITIVE**



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

Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

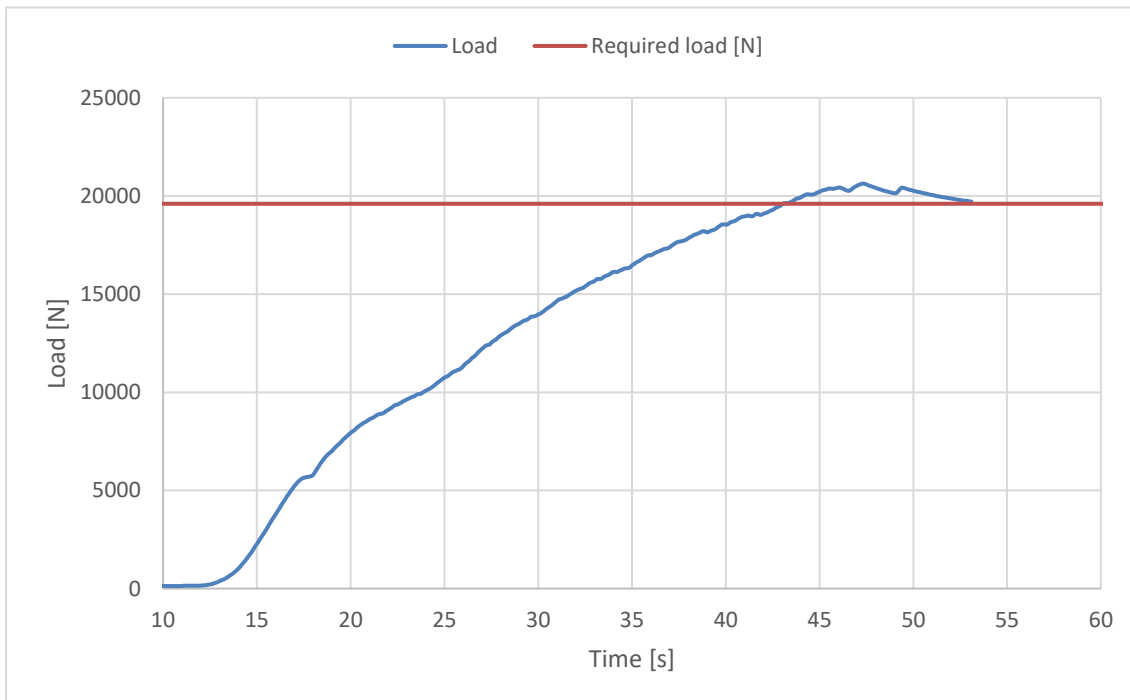
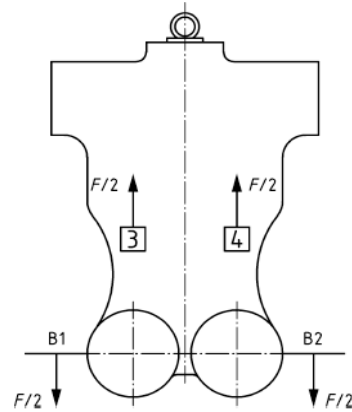
**Test ID 03**

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] **19500**  
 Minimum test duration [s] **5**

**Result**

Test duration [s] **10.1**  
 Any signs of structural failure **No**  
 Test results **POSITIVE**



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

Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

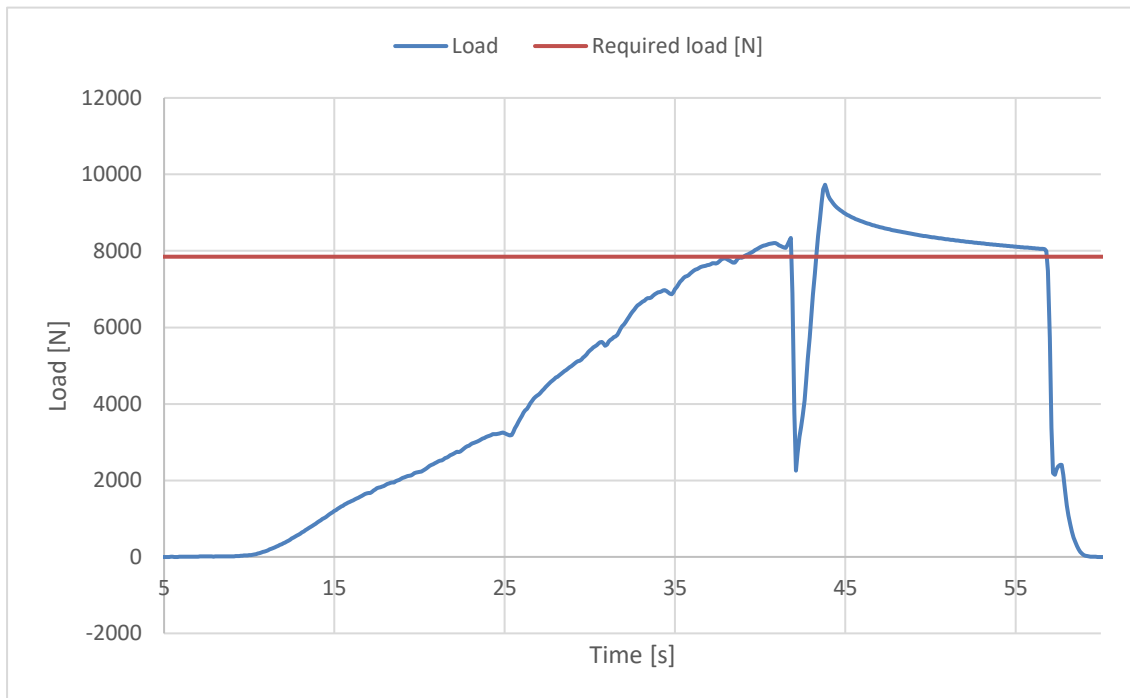
**Test ID 04**

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] **7800**  
 Minimum test duration [s] **10**

**Result**

Test duration [s] **13.6**  
 Any signs of structural failure **No**  
 Test results **POSITIVE**



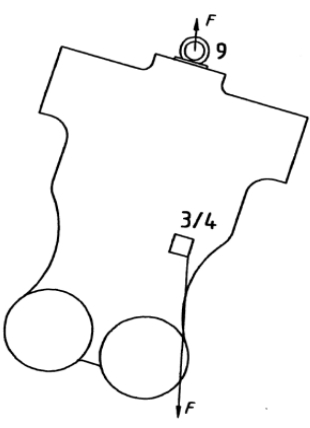
The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 94.20

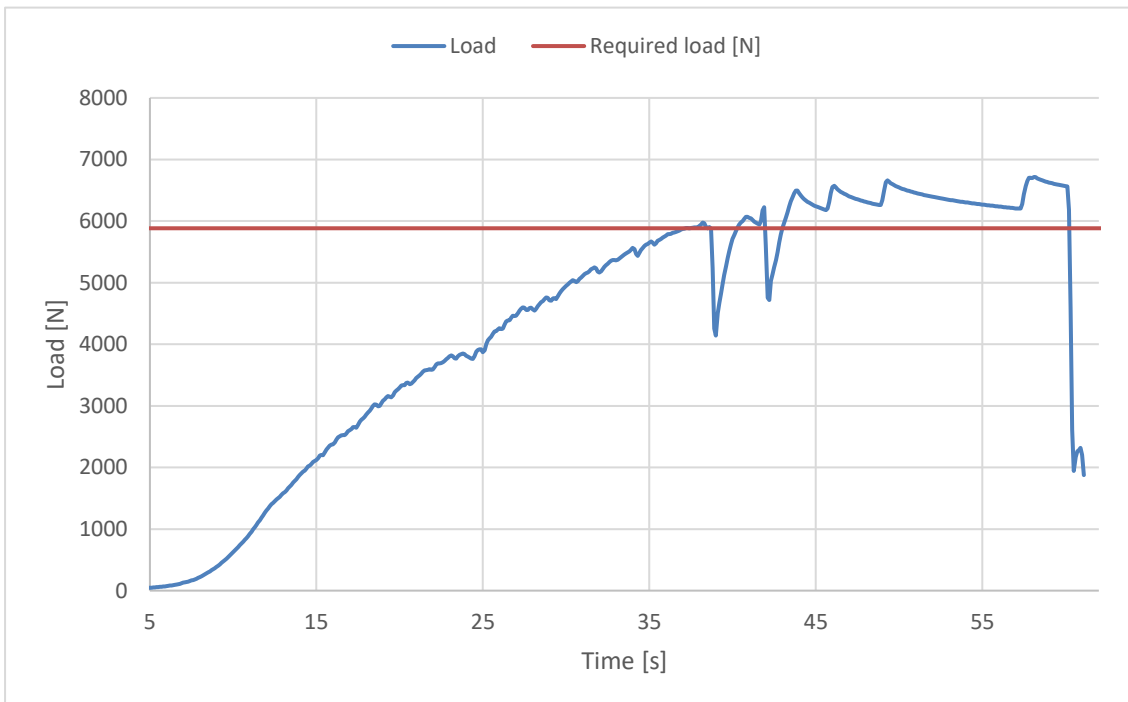
Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

**Test ID 07**

|                                 |   |  |
|---------------------------------|---|--|
| Standard                        | <b>NfL 2-565-20</b>                                 |  |
| Reference                       | <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>5850</b>   |  |
| Minimum test duration [s]       | <b>10</b>   |  |
| <b>Result</b>                   |   |  |
| Test duration [s]               | <b>17.3</b>   |  |
| Any signs of structural failure | <b>No</b>   |  |
| Test results                    | <b>POSITIVE</b>                                     |  |



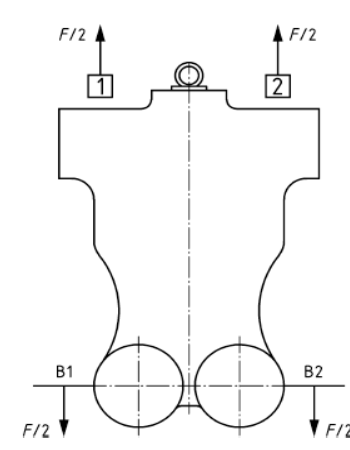
The validation of this test report is given by the signature of the test manager on the Inspection Certificate no 94.20

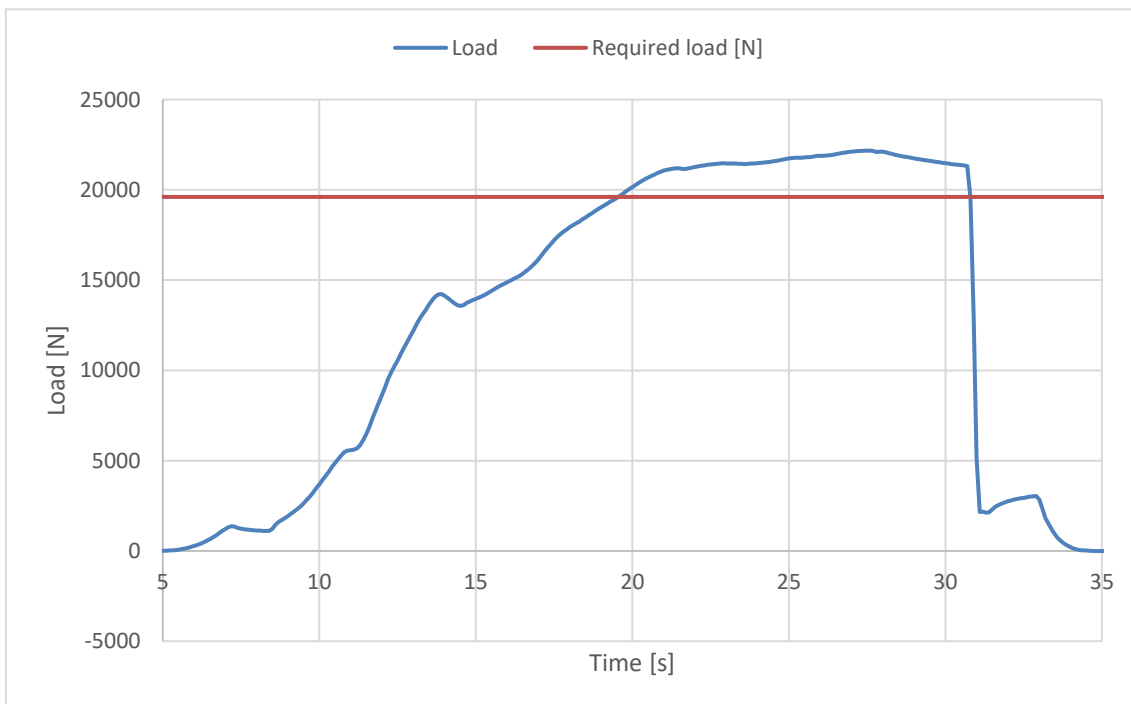
Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

**Test ID 09**

|                                 |                                      |  |
|---------------------------------|--------------------------------------|--|
| Standard                        | <b>NfL 2-565-20</b>                  |  |
| Reference                       | <b>5.3.2.4</b>                       |  |
| Test setup                      | <b>Rescue attachments</b>            |  |
| Attachment points               | <b>Rescue riser attachment (1,2)</b> |  |
| Anchor points                   | <b>Dummy (B1,B2)</b>                 |  |
| Required load [g]               | <b>15</b>                            |  |
| Required load [N]               | <b>19500</b>                         |  |
| Minimum test duration [s]       | <b>5</b>                             |  |
| <b>Result</b>                   |                                      |  |
| Test duration [s]               | <b>11.2</b>                          |  |
| Any signs of structural failure | <b>No</b>                            |  |
| Test results                    | <b>POSITIVE</b>                      |  |



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

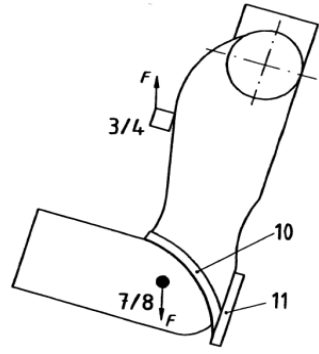
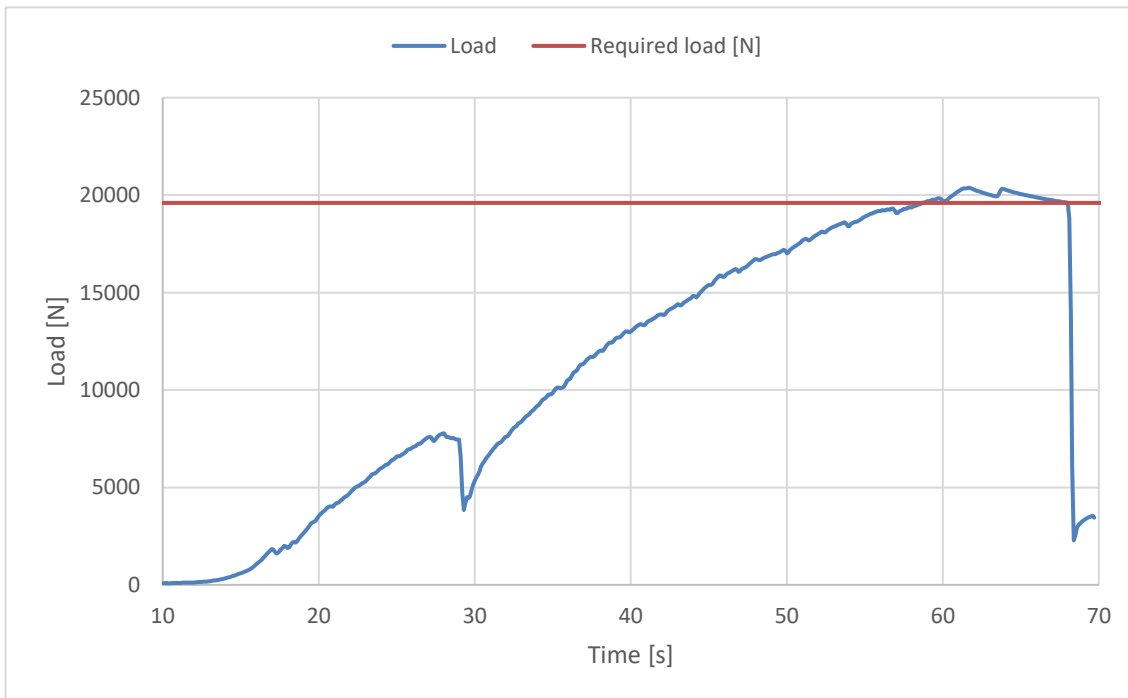
Inspection certificate number: **PH\_360.2022**

model: **A1**

**Harness Structural test**

**Test ID 13**

|                                 |   |
|---------------------------------|---|
| Standard                        | <b>NfL 2-565-20</b>                     |
| Reference                       | <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>19500</b>                            |
| Minimum test duration [s]       | <b>5</b>                                |
| <b>Result</b>                   |   |
| Test duration [s]               | <b>9.4</b>                              |
| Any signs of structural failure | <b>No</b>                               |
| Test results                    | <b>POSITIVE</b>                         |

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

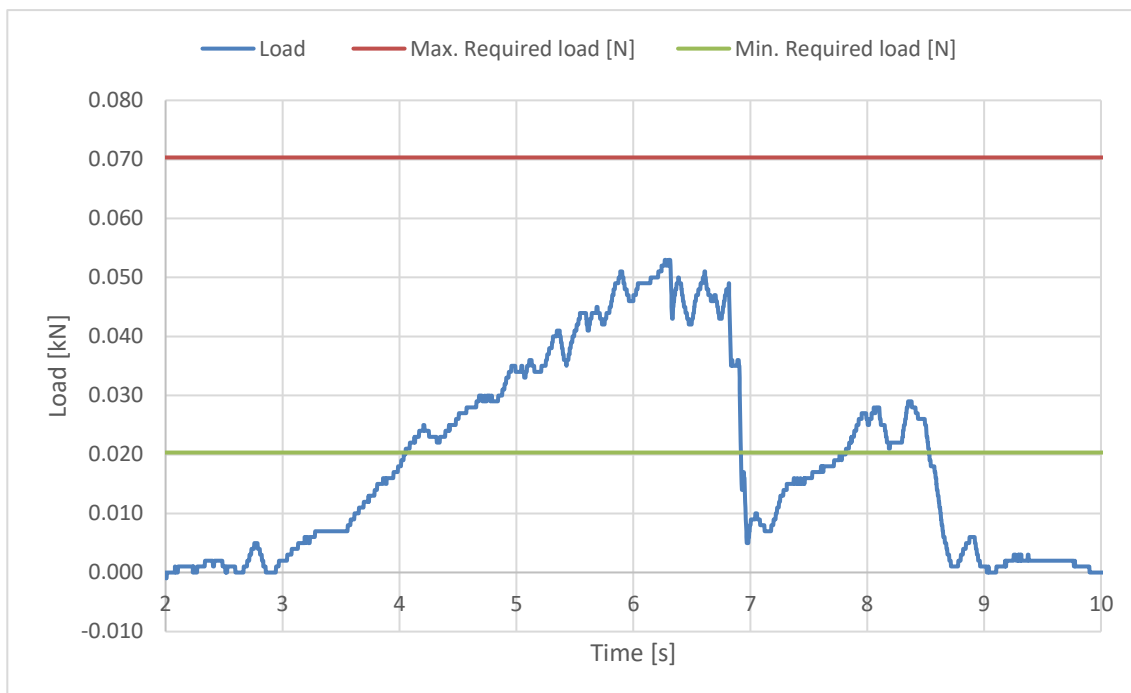
Inspection certificate number: **PH\_360.2022**

model: **A1**

**Rescue Deployment Test**

**Test ID RRDT**

|                           |  |
|---------------------------|--|
| Standard                  | <b>NfL 2-565-20</b>  |
| Reference                 | <b>6.1.5</b>   |
| Test setup                | <b>Default flying position</b>   |
| Attachment points         | <b>Sensor connect to handle, and pull in opening direction</b><br>The test is to simulate the load required to open the emergency parachute(1st action). |
| Min. Required load [N]    | <b>20</b>  |
| Max. Required load [N]    | <b>70</b>  |
| <b>Result</b>             |  |
| Load for first action [N] | <b>52.65</b>   |
| Test results              | <b>POSITIVE</b>  |



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



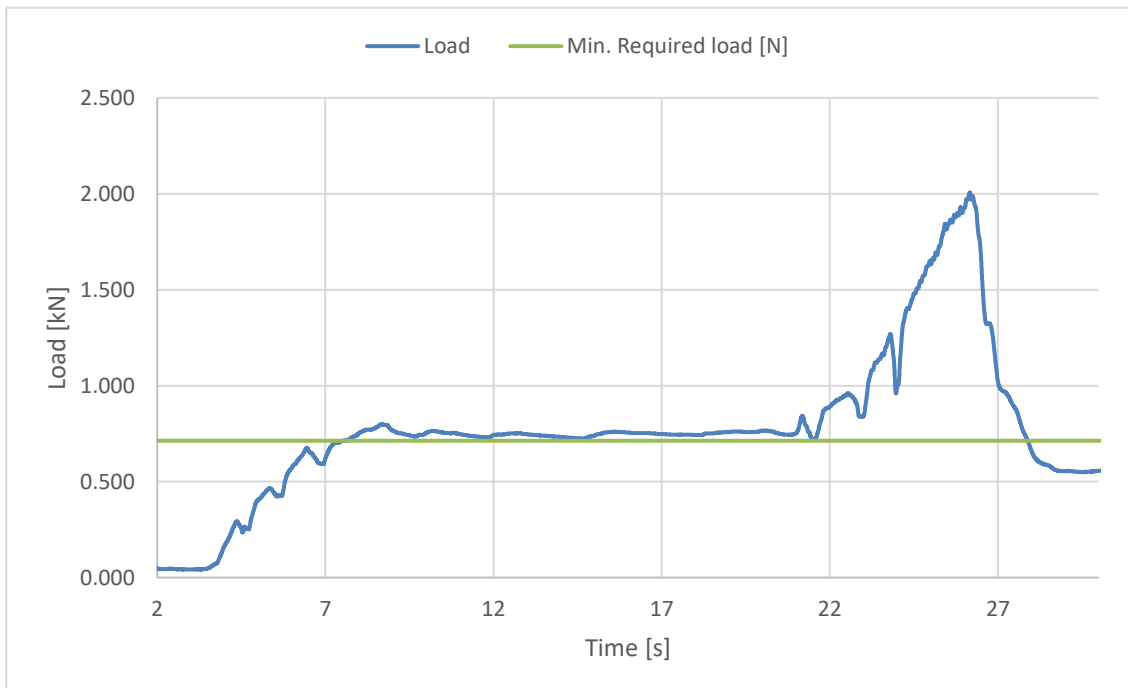
Inspection certificate number: **PH\_360.2022**

model: **A1**

**Rescue Deployment Handle strength test**

**Test ID RRST**

|                           |   |
|---------------------------|---|
| Standard                  | <b>EN12491:2015</b>   |
| Reference in standard     | <b>5.3.2</b>  |
| Test setup                | <b>Two end points of handle</b>   |
| Attachment points         | <b>Sensor connect to end of handle, pull on the other side</b><br>The handle must support min 700 N for 10 s, after measure breaking strength |
| Min. Required load [N]    | <b>700</b>  |
| Minimum test duration [s] | <b>10</b>   |
| <b>Result</b>             |   |
| Test duration [s]:        | <b>20.3</b>   |
| Breaking strength [N]     | <b>1994.03</b>  |
| Test results              | <b>POSITIVE</b>   |



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