

Harness Structural test Report - NfL

Inspection certificate number: **PH_421.2023**

Manufacturer data:

Manufacturer name: **Nova Vertriebsgesellschaft m.b.H.**
 Representative: **Philipp Medicus**
 Street: **Auweg 14**
 Post code place: **6124 Terfens**
 Country: **Austria**

Sample data:

Name: **ARTUS**
 Type: **ABS**
 Size: **M**
 Serial number: **AR12001**
 Impact pad type: ⁽¹⁾ **Aluminium**
 Clip-in weight [kg]: **130**
 Integrated container: **Yes**
 Date of test: **11.05.2023**

Atmosphere AGL:

[C°]	20
RH [%]	28
[hPa]	1020

Summary of Structural test

Test id	- Ref.	Setup	Req. Load [g]	Req. Load [N]	Min. duration [s]	Result
01	✓ 4.1.6.a	Default flying position	9	11700	10	POSITIVE
02	✓ 4.1.6.b	Landing position	6	7800	10	POSITIVE
03	✓ 4.1.6.c	Negative symmetric load	6	7800	10	POSITIVE
04	✓ 4.1.6.a	Rescue points flying position	9	11700	10	POSITIVE
05	✓ 4.1.6.b	Rescue points landing position	6	7800	10	POSITIVE
06	✓ 4.1.6.c	Rescue points negative load	6	7800	10	POSITIVE
07	4.1.6.d	Towing	3	3900	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	48.67	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	968.52	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

⁽¹⁾ 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%.

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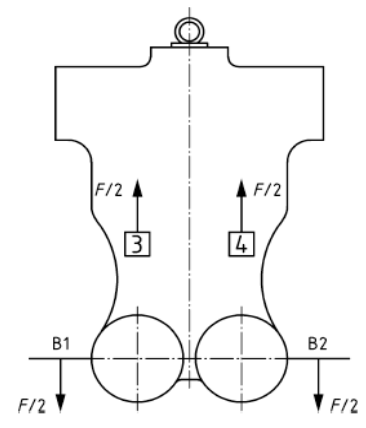
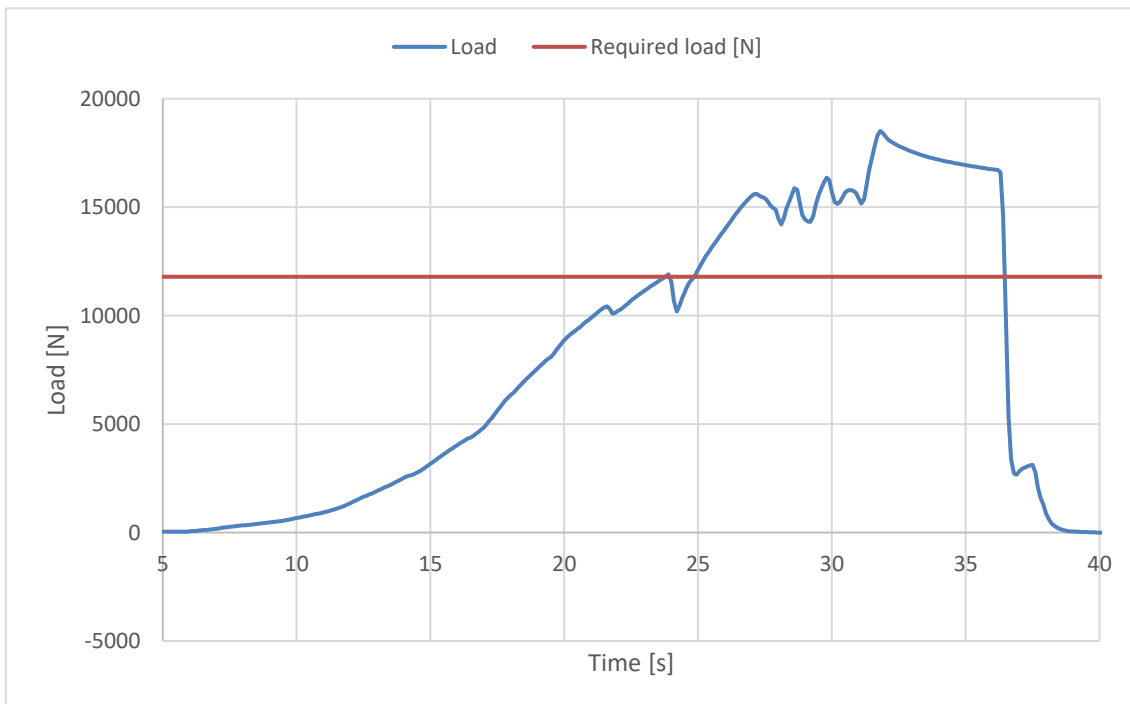
Inspection certificate number: **PH_421.2023**

model: **ARTUS**

Harness Structural test

Test ID 01

Standard	NfL 2-565-20
Reference	4.1.6.a
Test setup	Default flying position
Attachment points	Both main riser attachment (3,4)
Anchor points	Dummy (B1, B2)
Required load [g]	9
Required load [N]	11700
Minimum test duration [s]	10
Result	
Test duration [s]	11.6
Any signs of structural failure	No
Test results	POSITIVE

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Harness Structural test

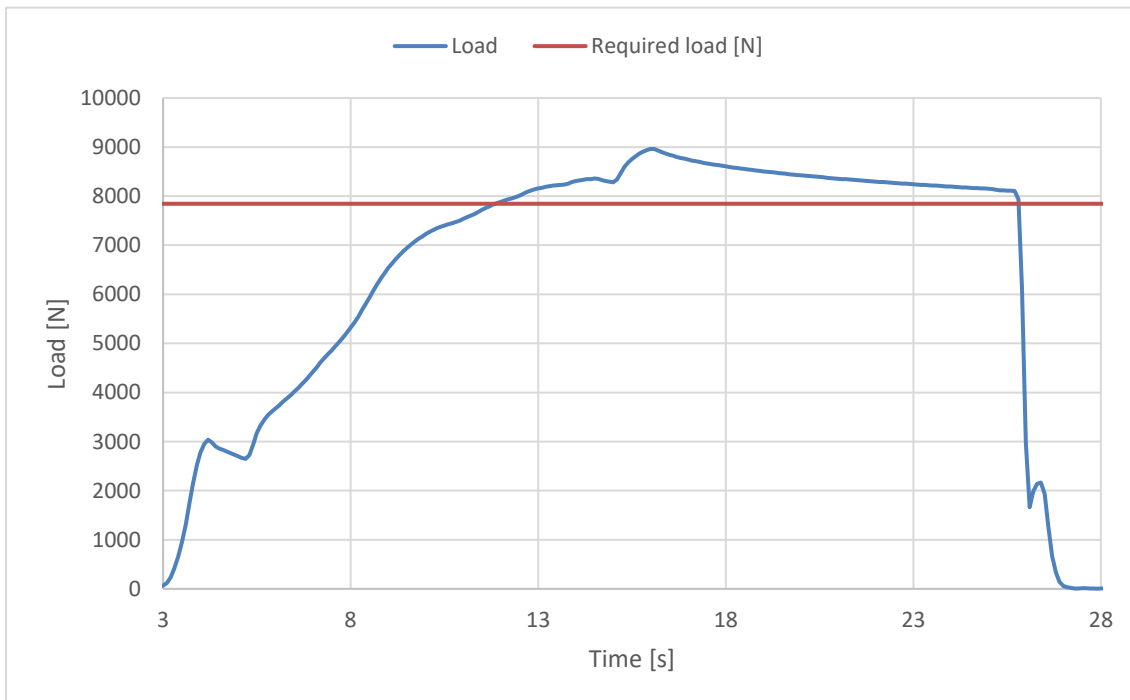
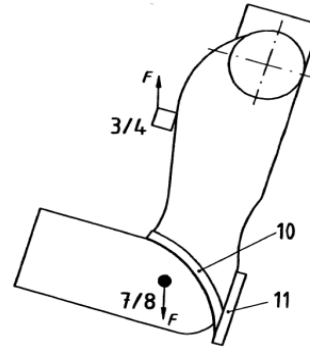
Test ID 02

Standard **NfL 2-565-20**
 Reference **4.1.6.b**
 Test setup **Landing position**
 Attachment points **Both main riser attachment (3,4)**
 Anchor points **Dummy (7,8)**

Required load [g] **6**
 Required load [N] **7800**
 Minimum test duration [s] **10**

Result

Test duration [s] **14**
 Any signs of structural failure **No**
 Test results **POSITIVE**



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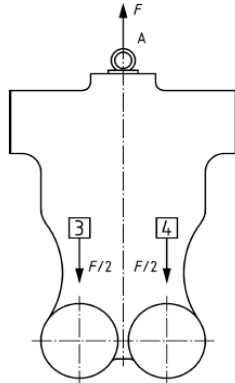
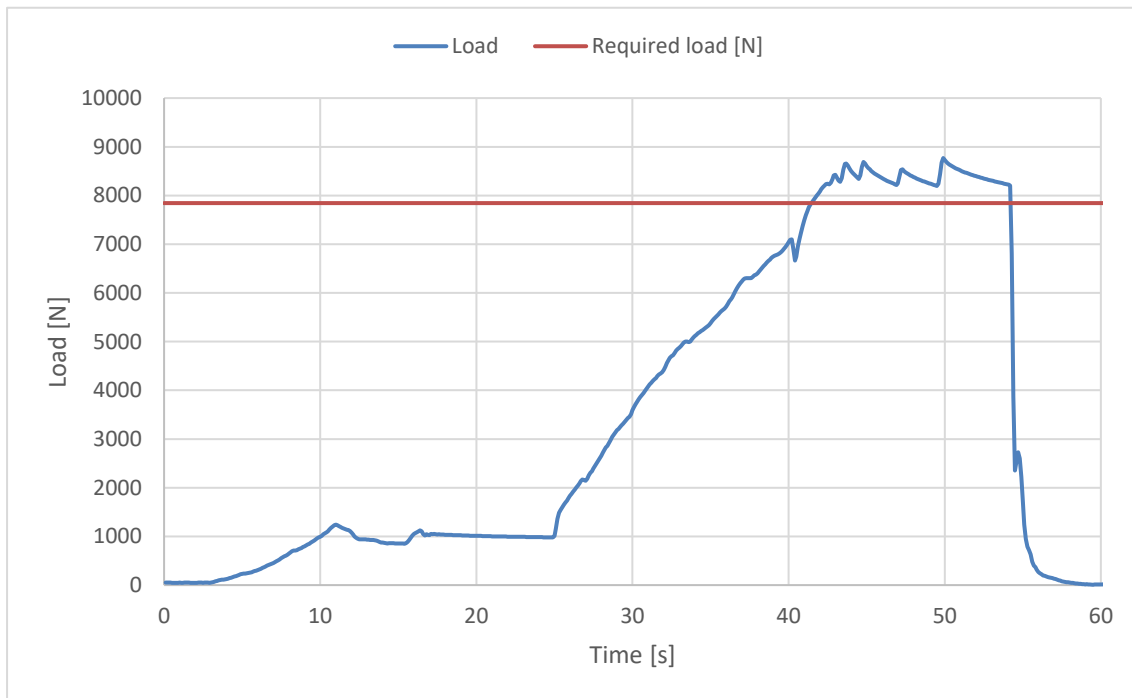
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model: **ARTUS**

Harness Structural test

Test ID 03

Standard	NfL 2-565-20
Reference	4.1.6.c
Test setup	Negative symmetric load
Attachment points	Both main riser attachment (3,4)
Anchor points	Dummy (A)
Required load [g]	6
Required load [N]	7800
Minimum test duration [s]	10
Result	
Test duration [s]	12.8
Any signs of structural failure	No
Test results	POSITIVE

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Harness Structural test

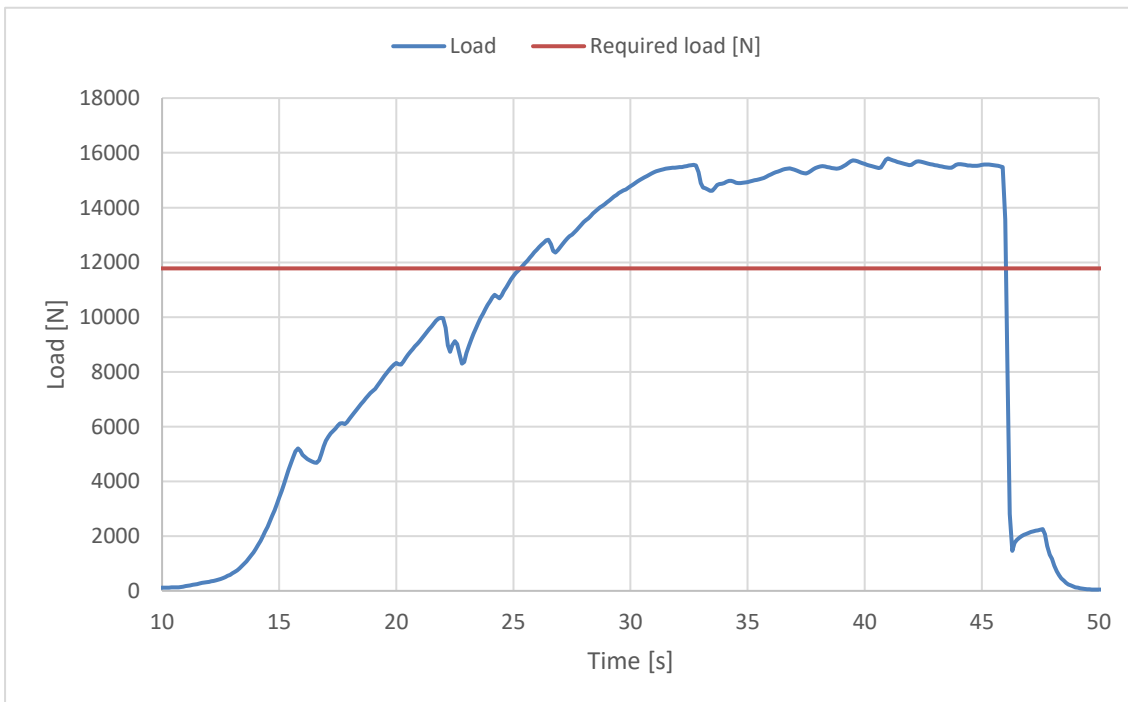
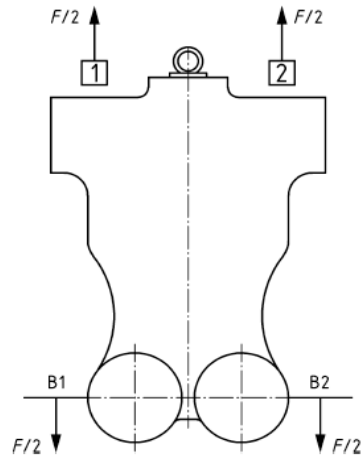
Test ID 04

Standard **NfL 2-565-20**
 Reference **4.1.6.a**
 Test setup **Rescue points flying position**
 Attachment points **Rescue riser attachment (1,2)**
 Anchor points **Dummy (B1,B2)**

Required load [g] **9**
 Required load [N] **11700**
 Minimum test duration [s] **10**

Result

Test duration [s] **20.8**
 Any signs of structural failure **No**
 Test results **POSITIVE**



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model: **ARTUS**

Harness Structural test

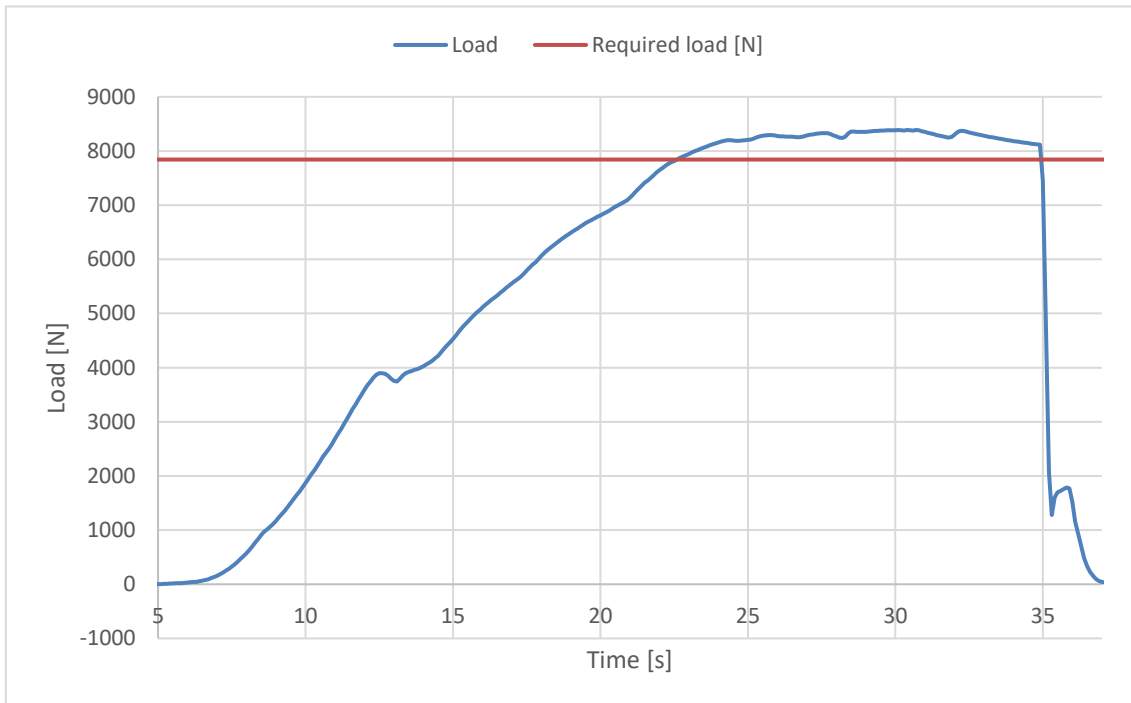
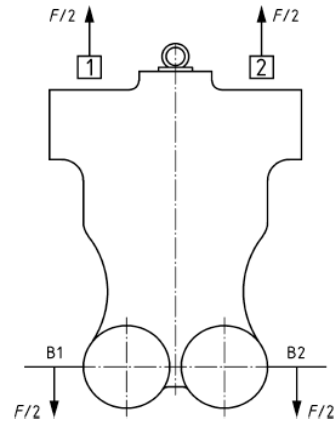
Test ID 05

Standard **NfL 2-565-20**
 Reference **4.1.6.b**
 Test setup **Rescue points landing position**
 Attachment points **Rescue riser attachment (1,2)**
 Anchor points **Dummy (B1,B2)**

Required load [g] **6**
 Required load [N] **7800**
 Minimum test duration [s] **10**

Result

Test duration [s] **12.4**
 Any signs of structural failure **No**
 Test results **POSITIVE**



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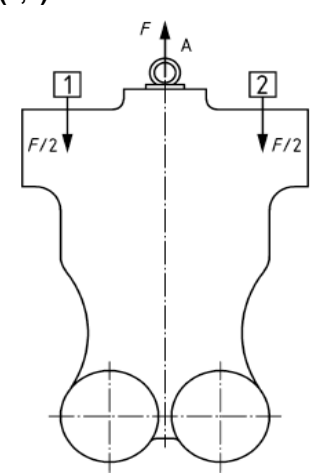
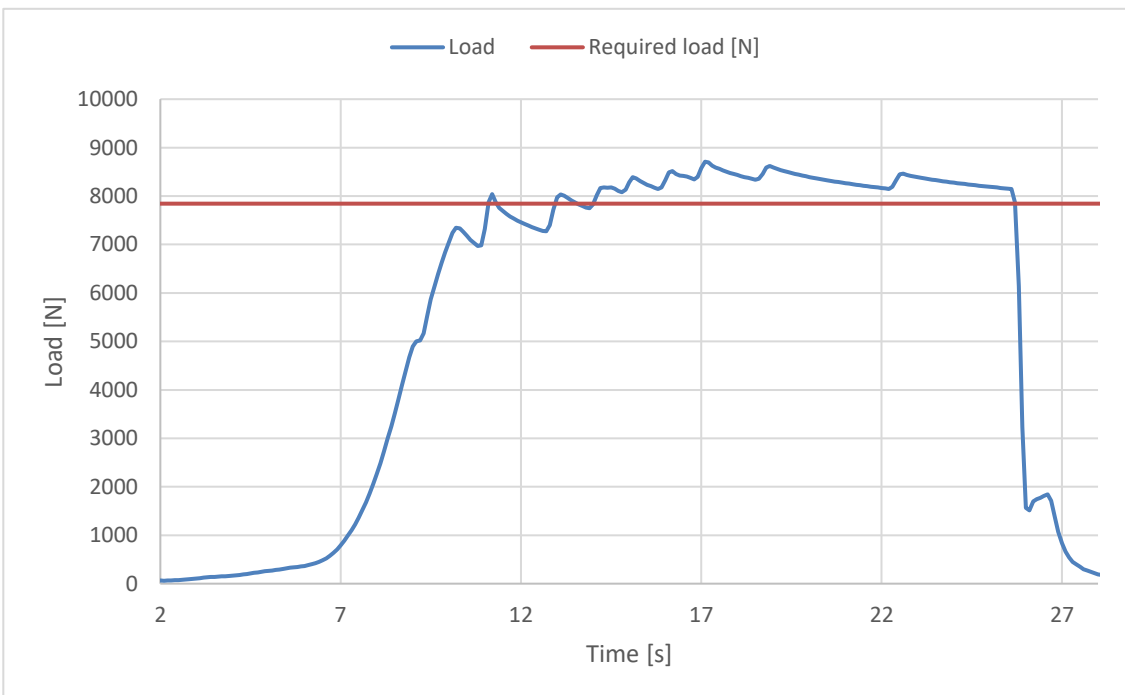
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Harness Structural test

Test ID 06

Standard	NfL 2-565-20
Reference	4.1.6.c
Test setup	Rescue points negative load
Attachment points	Emergency parachute (rescue) attachment (1,2)
Anchor points	Dummy (A)
Required load [g]	6
Required load [N]	7800
Minimum test duration [s]	10
Result	
Test duration [s]	11.7
Any signs of structural failure	No
Test results	POSITIVE

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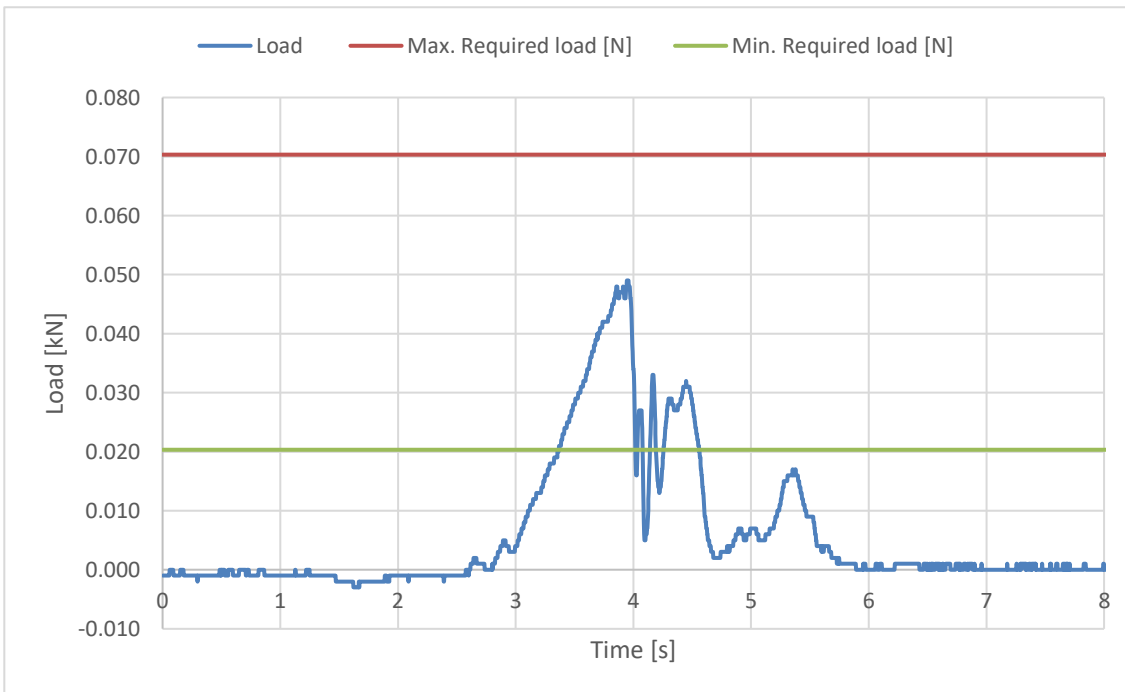
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Rescue Deployment Test

Test ID RRDT

Standard	NfL 2-565-20
Reference	6.1.5
Test setup	Default flying position
Attachment points	Sensor connect to handle, and pull in opening direction
	The test is to simulate the load required to open the emergency parachute(1st action).
Min. Required load [N]	20
Max. Required load [N]	70
Result	
Load for first action [N]	48.67
Test results	POSITIVE



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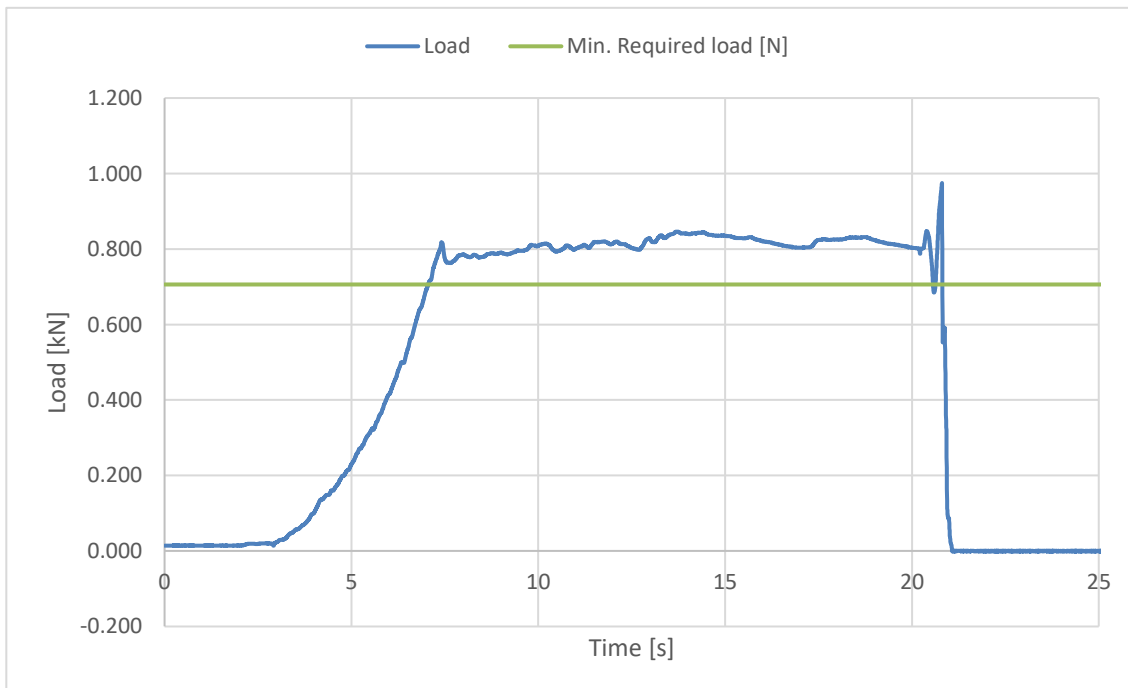
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Rescue Deployment Handle strength test

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]:	13.5
Breaking strength [N]	968.52
Test results	POSITIVE



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