

Paragliders Shock- and sustained loading test

Inspection certificat number: **PG_1179.2017**

Test Report

Manufacturer data

Manufacturer name: **Ozone Gliders**
 Representative: **Russell Ogden**
 Street: **2, Queens Drive**
 Post code / place: **LA46LN**
 Country: **UK**

Sample data

Name: **Delta 3**
 Size: **XL**
 Maximum weight in flight [kg]: **130**
 Serial number: **PR2-S-02E-015**
 Date of reception: **28.01.2017**

Test data

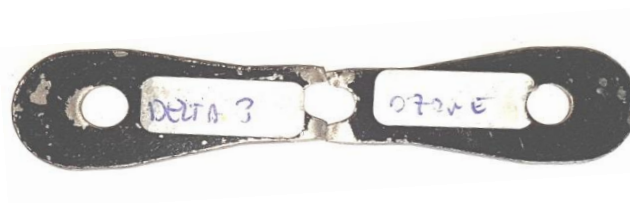
Test Atmosphere AGL

Place of test:	Payerne (airport)	-3.8	[°C]
Date of test:	28.01.2017	80	RH [%]
Inspector:	Alain Zoller	961.5	[hPA]
		0.1	Wind [m/s]

Shock loading test result ⁽¹⁾

Weak link used [daN]: **1000**
 Visual inspection: **No visible damage** Results: **POSITIVE**
 Uncertainty k=2 [%] ⁽²⁾ **10**

Weak link



Instruments	Validity	Manufacturer	s/n
Weak link	2020	Tost	n/a
Cable	2020	Rotex	n/a
Geos n° 11 Skywatch	08.05.2019	JDC elec.	22

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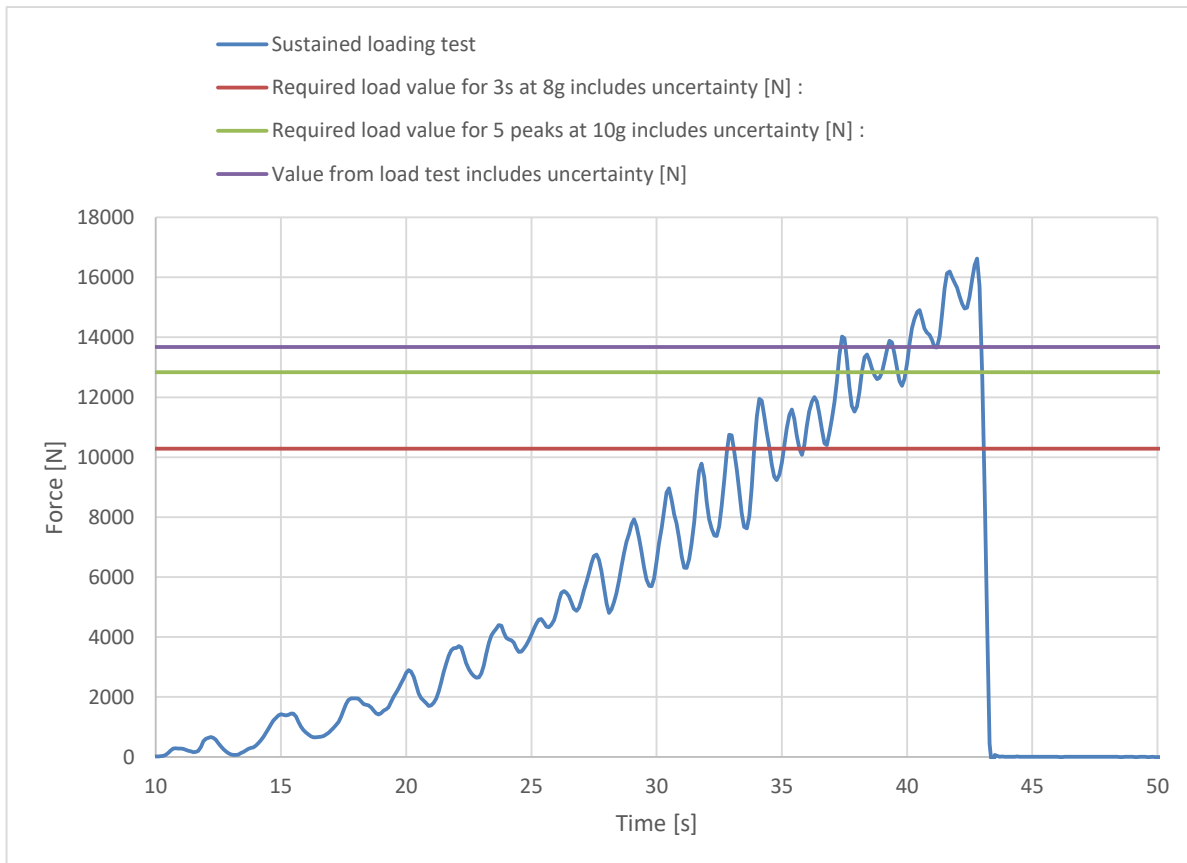
Sustained loading test results ⁽³⁾

Result : **POSITIVE**
 Calculated max load value with 3 sec or five peaks [kg] : **174.25**

Required sustained loading test results ⁽⁴⁾

Required load value for 3s at 8g [N] : **10202.40**
 Required load value for 5 peaks at 10g [N] : **12753.00**
 Required load value for 3s at 8g includes uncertainty [N] : **10283.43**
 Required load value for 5 peaks at 10g includes uncertainty [N] : **12834.03**
 Uncertainty K=2 [%] : **0.487**

Graphic sustained loading diagram





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Detailed sustained loading test results

Calculated cumulative duration at max load [s] : **3.1**

Calculated max load value duration of 3 sec. [N] : **1709.37**

Calculated max load value duration of 3 sec. [kg] : **174.25**

Calculated max load value with five peaks [N] : **n/a**

Calculated max load value with five peaks [kg] : **n/a**

Calculated max load value with 3 sec or five peaks [N] : **1709.37**

Calculated max load value with 3 sec or five peaks [kg] : **174.25**

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

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the standards **EN 926-1:2015 chapter 4.4, 4.5 | LTF NFL II-91/09 chapter 3**

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- (1) The paraglider is subjected to a shock load . Shock load is limited using a weak link according to the weight range of glider. The weak link breaks or 5 s has elapsed since the start of the shock load. The wing is then visually inspected for damage.
 - (2) Weak link value include the uncertainty for weight range test values / The uncertainty state 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%.
 - (3) The test specimen (sample) is attached to the electronic sensors on the tow vehicle.
 - A controller is positioned on the tow vehicle in order to operate the paraglider control lines to stabilize the wing.
 - The speed of the vehicle is increased as gradually as possible, enabling the controller to obtain satisfactory stabilisation of the flight path of the paraglider.
 - When the paraglider has stabilized, the speed is increased gradually until either:
 - a) the measured load exceeds a load factor of eight times the maximum total weight in flight recommended by the manufacturer, for a minimum cumulative duration of 3 s; or
 - b) five peaks separated by at least 0,3 s are obtained above ten times the maximum total weight in flight recommended by the manufacturer, in one run.
 - (4) The calculated value include the value minus the uncertainty / 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%.