



Classification: **A**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1514.2019

Date of issue (DMY):

30.07.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 20

Serial number:

OI510229

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	70
Minimum weight in flight (kg)	55
Glider's weight (kg)	3.1
Number of risers	3
Projected area (m2)	17.06

Accessories

Range of speed system (cm)	13
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Supair
Harness model	Altiplume S
Harness to risers distance (cm)	43
Distance between risers (cm)	40

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **None**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A 0



Classification: **A**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1515.2019

Date of issue (DMY):

13.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 22

Serial number:

NIPS10220181

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	80
Minimum weight in flight (kg)	60
Glider's weight (kg)	3.4
Number of risers	3
Projected area (m2)	18.76

Accessories

Range of speed system (cm)	13
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Niviuk
Harness model	Konvers M
Harness to risers distance (cm)	43
Distance between risers (cm)	44

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **None**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A 0



Classification: **A**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1516.2019

Date of issue (DMY):

13.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 24

Serial number:

NIPS10220184

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	92
Minimum weight in flight (kg)	70
Glider's weight (kg)	3.7
Number of risers	3
Projected area (m2)	20.47

Accessories

Range of speed system (cm)	13
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Supair
Harness model	Evo XC 3 M
Harness to risers distance (cm)	43
Distance between risers (cm)	44

Inspections (whichever happens first)

every 24 months or every 100 flying hours
 Warning! Before use refer to user's manual
 Person or company having presented the glider for testing: **None**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A 0



Classification: **A**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1517.2019

Date of issue (DMY):

13.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 26

Serial number:

NIPS10220182

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	105
Minimum weight in flight (kg)	82
Glider's weight (kg)	3.9
Number of risers	3
Projected area (m2)	22.17

Accessories

Range of speed system (cm)	16
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Gin Gliders
Harness model	Gingo 2 L
Harness to risers distance (cm)	43
Distance between risers (cm)	46

Inspections (whichever happens first)

every 24 months or every 100 flying hours
 Warning! Before use refer to user's manual
 Person or company having presented the glider for testing: **None**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A 0



Classification: **A**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1518.2019

Date of issue (DMY):

13.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 28

Serial number:

NIH528V1

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	120
Minimum weight in flight (kg)	95
Glider's weight (kg)	4.15
Number of risers	3
Projected area (m2)	23.88

Accessories

Range of speed system (cm)	15
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Ava Sport
Harness model	Acro 1 L

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **None**

Harness to risers distance (cm) **43**

Distance between risers (cm) **48**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A 0

Line and Riser measurements report for flight test glider

Report number: **PG_1442.2019**
 Manufacturer: **Niviuk Gliders**

Sample name: **Hook 5 20**
 S/N: **NIH520V1**

Total line length include riser and carabiner/connect [mm]

		A	B	C	D	E	Stab	Brakes
Center	1	6371	6270	6312	6421		5523	6425
	2	6315	6208	6260	6368		5528	6236
	3	6250	6204	6277	6382		5594	6158
	4	6173	6084	6133	6228			6097
	5	6108	6026	6088				5940
	6	5982	5936	6008				5877
	7	5901	5904	5991				5912
	8	5843	5899	6004				5869
	9	5620	5597					5744
	10							5644
Wing tip	11							5625
	12							
	13							
	14							
	15							
	16							
	17							
	18							

Measure total riser length with no carabiners/connect [mm]

Risers	Std	Acc
A	468	339
A'	466	337
B	464	378
C	468	468
D		
Acc	130	*[mm]
Trimmer	n/a	[mm]

*Travel range (distance between A and rear riser)



Line and Riser measurements report for flight test glider

Report number: **PG_1419.2018**
 Manufacturer: **Niviuk**

Sample name: **Hook 5 22**
 S/N: **NIPS10220181**

Total line length include riser and carabiner/connect [mm]

		A	B	C	D	E	Stab	Brakes
Center	1	6659	6560	6608	6722		5814	6768
	2	6606	6502	6555	6666		5819	6568
	3	6535	6505	6590	6697		5891	6485
	4	6457	6384	6444	6543			6434
	5	6398	6319	6380				6270
	6	6266	6227	6297				6199
	7	6174	6194	6281				6241
	8	6117	6189	6298				6197
	9	5910	5888					6069
	10							5966
Wing tip	11							5951
	12							
	13							
	14							
	15							
	16							
	17							
	18							

Measure total riser length with no carabiners/connect [mm]

Risers	Std	Acc
A	467	333
A'	467	333
B	466	378
C	468	468
D		
Acc	130	*[mm]
Trimmer	n/a	[mm]

*Travel range (distance between A and rear riser)



Line and Riser measurements report for flight test glider

Report number: **PG_1420.2018**
 Manufacturer: **Niviuk**

Sample name: **Hook 5 24**
 S/N: **V8**

Total line length include riser and carabiner/connect [mm]

		A	B	C	D	E	Stab	Brakes
Center	1	6954	6841	6907	7022		6084	7089
	2	6897	6784	6851	6966		6082	6880
	3	6833	6798	6887	6997		6161	6794
	4	6754	6671	6740	6837			6737
	5	6699	6608	6670				6568
	6	6563	6513	6590				6502
	7	6472	6473	6569				6544
	8	6410	6469	6586				6495
	9	6194	6166					6360
	10							6250
Wing tip	11							6244
	12							
	13							
	14							
	15							
	16							
	17							
	18							

Measure total riser length with no carabiners/connect [mm]

Risers	Std	Acc
A	466	334
A'	467	335
B	464	376
C	465	465
D		
Acc	130	*[mm]
Trimmer	n/a	[mm]

*Travel range (distance between A and rear riser)



Line and Riser measurements report for flight test glider

Report number: **PG_1421.2018**
 Manufacturer: **Niviuk**

Sample name: **Hook 5 26**
 S/N: **NIPS10220182**

Total line length include riser and carabiner/connect [mm]

		A	B	C	D	E	Stab	Brakes
Center	1	7241	7124	7187	7312		6339	7397
	2	7185	7070	7137	7259		6339	7182
	3	7114	7078	7167	7280		6416	7096
	4	7039	6949	7011	7118			7035
	5	6971	6878	6943				6859
	6	6829	6782	6857				6783
	7	6735	6746	6835				6833
	8	6670	6747	6856				6785
	9	6441	6420					6648
	10							6535
Wing tip	11							6519
	12							
	13							
	14							
	15							
	16							
	17							
	18							

Measure total riser length with no carabiners/connect [mm]

Risers	Std	Acc
A	467	311
A'	467	311
B	466	361
C	468	468
D		
Acc	160	*[mm]
Trimmer	n/a	[mm]

*Travel range (distance between A and rear riser)



Line and Riser measurements report for flight test glider

Report number: **PG_1422.2018**
 Manufacturer: **Niviuk**

Sample name: **Hook 5 28**
 S/N: **NIH528V1**

Total line length include riser and carabiner/connect [mm]

		A	B	C	D	E	Stab	Brakes
Center	1	7473	7361	7431	7559		6524	7677
	2	7422	7305	7378	7509		6528	7450
	3	7395	7351	7449	7569		6607	7364
	4	7306	7208	7288	7397			7299
	5	7243	7147	7218				7114
	6	7090	7047	7127				7041
	7	6997	7010	7108				7091
	8	6932	7008	7131				7045
	9	6655	6638					6903
	10							6782
Wing tip	11							6762
	12							
	13							
	14							
	15							
	16							
	17							
	18							

Measure total riser length with no carabiners/connect [mm]

Risers	Std	Acc
A	465	314
A'	466	315
B	464	366
C	467	467
D		
Acc	150	*[mm]
Trimmer	n/a	[mm]

*Travel range (distance between A and rear riser)



Classification: **B**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1515.2019

Date of issue (DMY):

27.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 22

Serial number:

NIPS10220181

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	95
Minimum weight in flight (kg)	60
Glider's weight (kg)	3.4
Number of risers	3
Projected area (m2)	18.76

Accessories

Range of speed system (cm)	13
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Supair
Harness model	Evo XC 3 L
Harness to risers distance (cm)	44
Distance between risers (cm)	44

Inspections (whichever happens first)

every 24 months or every 100 flying hours
 Warning! Before use refer to user's manual
 Person or company having presented the glider for testing: **None**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A B A A A A A A A A A A A A 0



Classification: **B**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1516.2019

Date of issue (DMY):

27.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 24

Serial number:

NIPS10220184

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	105
Minimum weight in flight (kg)	70
Glider's weight (kg)	3.7
Number of risers	3
Projected area (m2)	20.47

Accessories

Range of speed system (cm)	13
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Gin Gliders
Harness model	Gingo 2 L
Harness to risers distance (cm)	43
Distance between risers (cm)	46

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: None

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A A B A A A B A A A A A A A 0



Classification: **B**



In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

PG_1517.2019

Date of issue (DMY):

27.06.2019

Manufacturer:

Niviuk Gliders / Air Games S.L.

Model:

Hook 5 P 26

Serial number:

NIPS10220182

Configuration during flight tests

Paraglider

Maximum weight in flight (kg)	120
Minimum weight in flight (kg)	82
Glider's weight (kg)	3.9
Number of risers	3
Projected area (m2)	22.17

Accessories

Range of speed system (cm)	16
Speed range using brakes (km/h)	15
Total speed range with accessories (km/h)	25
Range of trimmers (cm)	0

Harness used for testing (max weight)

Harness type	ABS
Harness brand	Ava Sport
Harness model	Acro 1 L

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **None**

Harness to risers distance (cm) **43**

Distance between risers (cm) **48**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A B A A A A A B A A A B B A A A B B A 0

Paragliders Shock- and sustained loading test

Inspection certificat number: **PG_1516.2019****Test Report**

Manufacturer data

Manufacturer name: **Niviuk Gliders**
 Representative: **Dominique Cizeau**
 Street: **C. Del Ter, 6-Nave D**
 Post code / place: **17165 La Cellera de Ter Girona**
 Country: **Spain**

Sample data

Name: **Hook 5 P**
 Size: **24**
 Maximum weight in flight [kg]: **92**
 Serial number: **OH5P24V3**
 Date of reception: **28.02.2019**

Test data

Test Atmosphere AGL

Place of test:	Yverdon (airport)	-2	[°C]
Date of test:	12.03.2019	66	RH [%]
Inspector:	Alain Zoller	976	[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⁾ **5**

Weak link



Instruments	Validity	Manufacturer	s/n
Weak link	2020	Tost	n/a
Ultrawire DSK99	29.10.2023	Gottifredi	n/a
Geos n° 11 Skywatch	08.05.2020	JDC elec.	22

Inspection certificate number: **PG_1516.2019**

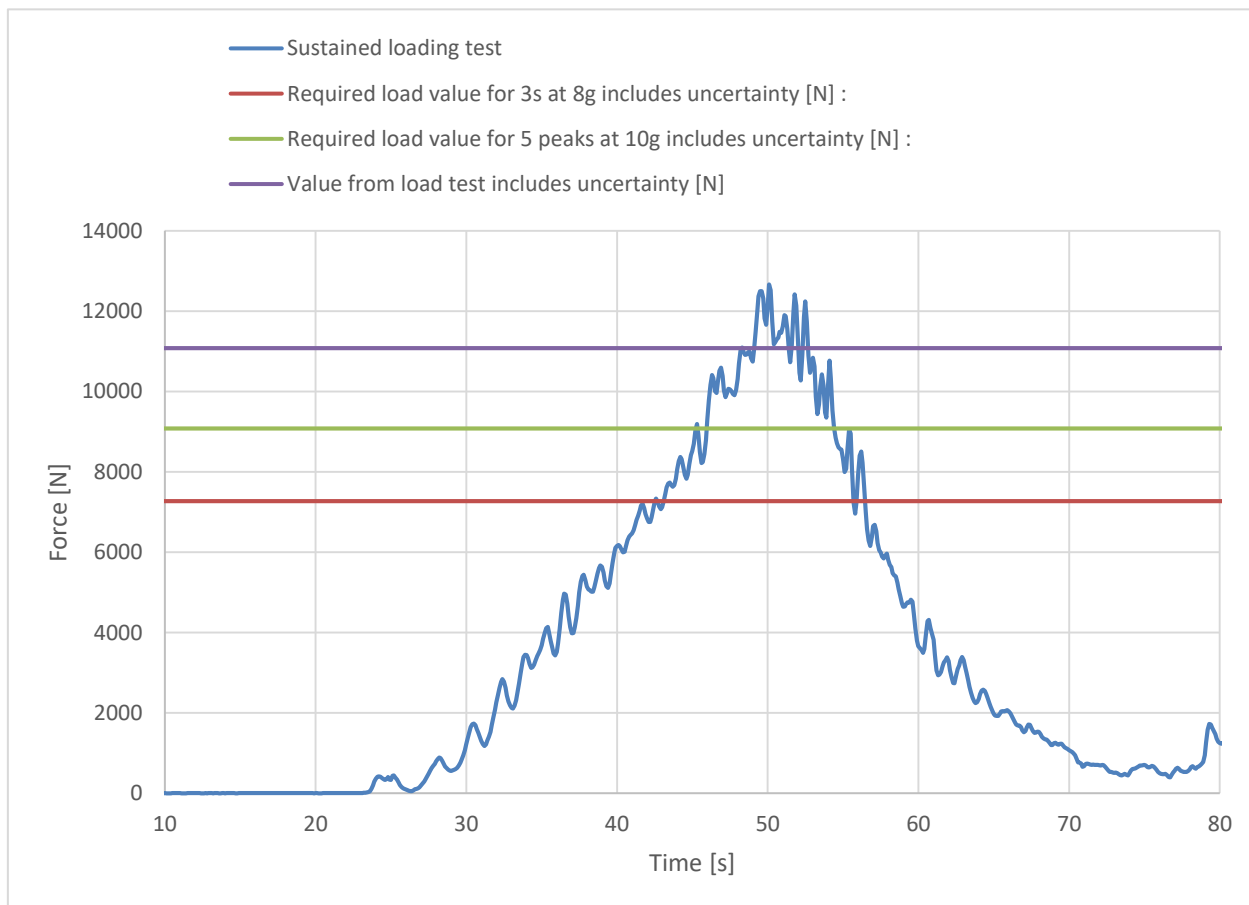
Sustained loading test results ⁽³⁾

Result : **POSITIVE**
 Calculated max load value with 3 sec or five peaks [kg] : **141.11**

Required sustained loading test results ⁽⁴⁾

Required load value for 3s at 8g [N] : **7220.16**
 Required load value for 5 peaks at 10g [N] : **9025.20**
 Required load value for 3s at 8g includes uncertainty [N] : **7272.80**
 Required load value for 5 peaks at 10g includes uncertainty [N] : **9077.84**
 Uncertainty K=2 [%] : **0.416**

Graphic sustained loading diagram





Inspection certificate number: **PG_1516.2019**

Detailed sustained loading test results

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

Calculated max load value duration of 3 sec. [N] : **1384.29**

Calculated max load value duration of 3 sec. [kg] : **141.11**

Calculated max load value with five peaks [N] : **1184.91328**

Calculated max load value with five peaks [kg] : **120.7862671**

Calculated max load value with 3 sec or five peaks [N] : **1384.29**

Calculated max load value with 3 sec or five peaks [kg] : **141.11**

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

The validation of this test report is given by the signature of the test manager on inspection certificate 71.8.1

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**

(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%.