

Air Turquoise SA Rte du Pré-au-Comte 8 | CH-1844 Villeneuve tel. +41 21 965 65 65 | mobile +41 79 202 52 30 info@para-test.com

Flight test report: EN 926-2:2013

riigiit test repo	ort. EN 920-2.2013				
Manufacturer	Niviuk Gliders / Air Games S.L.	Certification number		PG_0953.2015	
Address	C. Del Ter, 6 – Nave D 17165 La Cellera de Ter Girona Spain	Date of flight test		13. 07. 2015	
Glider model	Hook 4 23	Classification		В	
Serial number	Hook 4 1-23	Representative		None	
Trimmer	no	Place of test		Villeneuve	
THITITIE	110	riace or test		Villetteuve	
Test pilot		Dupont Philippe		Thurnheer Claude	
Harness		Sup' Air - Altiplume S		Niviuk - Konvers M	
Harness to risers distance (cm)		42		43	
Distance between ris	• •	40		42	
Total weight in flight	·	65		85	
Total weight in high	r (ng)	00		03	
1. Inflation/Take-off		A			
Rising behaviour		Smooth, easy and constant rising	Α	Smooth, easy and constant rising	Α
Special take off technique required		No	Α	No	Α
2. Landing		A			
Special landing technique r		No	Α	No	Α
3. Speed in straight flight		A			
Trim speed more than 30 k		Yes	A	Yes	A
Speed range using the controls larger than 10 km/h		Yes	A	Yes	A
Minimum speed		Less than 25 km/h	Α	Less than 25 km/h	Α
4. Control movement		A			
Max. weight in flight up to	o 80 kg				
Symmetric control pressure / travel		Increasing / greater than 55 cm	Α	not available	0
May woight in flight 80 k	a to 100 ka				
Max. weight in flight 80 kg to 100 kg Symmetric control pressure / travel		not available	0	Increasing / greater than 60 cm	Α
ojoo. p. 0000			·	more desiring in greater triain de em	
Max. weight in flight grea	ter than 100 kg				
Symmetric control pressure		not available	0	not available	0
5. Pitch stability exiting a	ccelerated flight	A			
Dive forward angle on exit		Dive forward less than 30°	A	Dive forward less than 30°	A
Collapse occurs	a controls during accolorated	No A	Α	not available	0
flight	g controls during accelerated	A			
Collapse occurs		No	Α	No	Α
7. Roll stability and damp	ping	A			
Oscillations		Reducing	Α	Reducing	Α
8. Stability in gentle spirals		A			
Tendency to return to straight flight		Spontaneous exit	A	Spontaneous exit	Α
9. Behaviour exiting a fully developed spiral dive		A			
Initial response of glider (fir	rst 180°)	Immediate reduction of rate of turn	Α	Immediate reduction of rate of turn	Α
Tendency to return to straig	ght flight	Spontaneous exit (g force decreasing, rate of turn decreasing)	Α	Spontaneous exit (g force decreasing, rate of turn decreasing)	Α

Turn angle to recover normal flight	Less than 720°, spontaneous	Α	Less than 720°, spontaneous	Α
10. Symmetric front collapse	recovery A		recovery	
Approximately 30 % chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit Change of course	Dive forward 0° to 30° Keeping course	Α	Dive forward 0° to 30° Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
At least 50% chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
With accelerator				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
11. Exiting deep stall (parachutal stall)	Α			
Deep stall achieved	Yes	Α	Yes	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Change of course	Changing course less than 45°	Α	Changing course less than 45°	Α
Cascade occurs	No	Α	No	Α
12. High angle of attack recovery	A			
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall	Α			
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Collapse	No collapse	Α	No collapse	Α
Cascade occurs (other than collapses)	No	Α	No	Α
Rocking back	Less than 45°	Α	Less than 45°	Α
Line tension	Most lines tight	Α	Most lines tight	Α
14. Asymmetric collapse	В			
Small asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 0° to 15°	Α	Less than 90° / Dive or roll angle 0° to 15°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
Large asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	90° to 180° / Dive or roll angle 15° to 45°	В
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α

Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	A	No	A
Folding lines used	No	Α	No	Α
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	Less than 90° / Dive or roll angle 0° to 15°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or	Less than 90° / Dive or roll angle	Α	90° to 180° / Dive or roll angle 15°	В
roll angle	15° to 45°		to 45°	
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
15. Directional control with a maintained asymmetric	A			,,
collapse				
Able to keep course	Yes	Α	Yes	Α
180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
Amount of control range between turn and stall or spin	More than 50 % of the	Α	More than 50 % of the symmetric	Α
Amount of control range between turn and stail of spin	symmetric control travel	^	control travel	
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	A			
Spin occurs	No	Α	No	Α
18. Recovery from a developed spin	A			
Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Cascade occurs	No	Α	No	Α
19. B-line stall	A			
Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Behaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Cascade occurs	No	Α	No	Α
20. Big ears	A			
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
• •				A
Behaviour during big ears	Stable flight	A	Stable flight	
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	A			
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Behaviour during big ears	Stable flight	Α	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α

Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	А	Stable flight	Α
22. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
23. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0

24. Comments of test pilot

Comments