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test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



## Flight test report: EN 926-2:2013+A1:2021\* and NfL 2-565-20

Manufacturer Address  Niviuk Gliders / Air G  C. Del Ter, 6 Nave D  17165 La Cellera de T			Certification num Flight test	ber	PG_2322.2024 13.03.2024	
Glider model Serial number Trimmer Folding lines used	Spain Ikuma 3 20 IKUMA320FT no no		Classification Representative Place of test		B None Villeneuve	
Test pilot		Light pilot under Air Turquoise supervision		Claude Thurnheer		
Harness to risers distance [cm] Distance between risers [cm]		Woody Valley srl Wani Light 2 S 41 40 55			Woody Valley srl Wani Light 2 M 43 43 75	
1. Inflation/Take-off Rising behaviour		<b>B</b> Easy rising, some pilo	t correction is required	В	Easy rising, some pilot correction is required	В
Special take off technique	required	No		Α	No	Α
Landing     Special landing technique required		<b>A</b> No		Α	No	Α
3. Speed in straight fligh Trim speed more than 30		<b>B</b> Yes		Α	Yes	Α
Speed range using the co		Yes		Α	Yes	Α
Minimum speed		Less than 25 km/h		Α	25 km/h to 30 km/h	В
4. Control movement  Max. weight in flight up to 80 kg  Symmetric control pressure / travel		A Increasing / greater th	an 55 cm	A	Increasing / greater than 55 cm	A
Max. weight in flight 80 kg to 100 kg Symmetric control pressure / travel		not available 0		0	not available	0
Max. weight in flight greater than 100 kg Symmetric control pressure / travel		not available		0	not available	0
<b>5. Pitch stability exiting</b> Dive forward angle on exit		A Dive forward less than	1 30°	Α	Dive forward less than 30°	Α
Collapse occurs		No		Α	No	Α
6. Pitch stability operating controls during accelerated flight Collapse occurs		<b>A</b> No		A	No	Α
7. Roll stability and dam Oscillations	ping	<b>A</b> Reducing		Α	Reducing	А
8. Stability in gentle spirals  Tendency to return to straight flight		A Spontaneous exit		Α	Spontaneous exit	А

9. Behaviour exiting a fully developed spiral dive	В			
Initial response of glider (first 180°)	No immediate reaction	В	No immediate reaction	В
Tendency to return to straight 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	720° to 1 080°, spontaneous recovery	В	720° to 1 080°, spontaneous recovery	В
10. Symmetric front collapse Approximately 30 % chord	Α			
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	Dodring hody lose than 459	^	Dagling hook loss than 45°	۸
Entry	Rocking back less than 45°  Spontaneous in less than 3 s	Α	Rocking back less than 45°  Spontaneous in less than 3 s	A
Recovery	·	A	Spontaneous in less than 3 s	A
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course  No	A A	Dive forward 0° to 30° / Keeping course  No	A A
Cascade occurs	No	A	No	A
Folding lines used	NU	А	NU	A
With accelerator	Dealing head less than 450	^	Darling hash lass than 450	^
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)  Deep stall achieved	A 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	B		Directory and 200 to 200	-
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 30° to 60°	В
Collapse	No collapse		No collapse	A
Cascade occurs (other than collapses)	No	Α	No	Α

De abben ha de	Loca than 45°	٨	Less than 45°	۸
Rocking back	Less than 45°	А	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	90° to 180° / Dive or roll angle 15° to 45°	В	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	Α	No	Α
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 15° to 45°	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 roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	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	Α	No	Α

Section   Procession   Proces	Folding lines used	No	Α	No	Α
Able to keep course         Yes         A           180" turn away from the collapsed side possible in 10 a.         Yes         A           Amount of control range between turn and stall or spin         Mare then 50 % of the symmetric control travel.         A           16. Trim speed spin tendency         An Succession occurs         A No.           Spin occurs         An Succession occurs         A No.           17. Low speed spin tendency         A Succession occurs         A No.           18. Recovery from a developed spin         B           19. Incompany occurs and spin relater release         A No.         A No.           Cascaded occurs         A No.         A No.         A No.           15. B-line stall         A No.         A No.         A No.           Change of course before release         Cheange course less than 45°         A Changing occurs less than 45°         A No.           Behaviour before release         Recovery         Spontaneous in less than 3 s         A Changing occurs less than 45°         A Changing occurs less than 45°         A No.           Recovery         Spontaneous in less than 3 s         A Social stageth trageth span         A No.           Recovery         Spontaneous in less than 3 s         A Social stageth span span stale with stageth span span stageth span span stale with stageth span span stageth span span span		A			
Amount of control range between turn and stall or spin  16. Trim speed spin tendency		Yes	Α	Yes	Α
16. Frim speed spin tendency Spin occurs No No A No A No A No A No A No A 17. Low speed spin tendency Spin coccurs No No A No A No A No A No A No A 18. Recovery from a developed spin B Spin tendency No No A	180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
Spin occurs No No A No A No A No A No A 17. Low speed spin tendency Spin cocurs No No A No A No A 18. Recovery from a developed spin B Spin rotation angle after release Stops spinning in less than 50° A No A 19. No A 18. Recovery from a developed spin B Spin rotation angle after release Stops spinning in less than 50° A No No A 18. Recovery Spin rotation angle after release Stops spinning in less than 50° A No No A 18. Recovery A No Recov	Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
Spin occurs No No A No A No A No A No A No A Spin occurs No No No A Spin occurs No No A Spin occurs No No A Spin occurs No A Spin occurs A Spin occurs No A Spin occurs A Spin occurs No A No A No A Spin occurs A Spin occurs A Spin occurs No A Spin occurs A Spin occurs A No A Spin occurs A Spin occurs A Spin occurs A Spi	16. Trim speed spin tendency	Α			
Spin occurs No A No A No A No A No A Steps spinning in less than 90° A Steps spinning in 90° to 180° B Cascade occurs No A Steps spinning in less than 90° A No A 19. B-line stall A Change of course before release Change of course before release Change of course before release Remains stable with straight span A Remains sta	Spin occurs	No	Α	No	Α
Spin rotation angle after release  Stops spinning in less than 50° A Stops spinning in 90° to 180° B  A No A  19. B-line stall  Change of course before release  Changing course less than 45° A Changing course less than 45° A B  Behaviour before release  Remains stable with straight span A Remains stable with straight span A Sportaneous in less than 3 a A Sportaneous in less than 3 a A Sportaneous in less than 3 a A Dive forward on 50° A No A  20. Big ears  Entry procedure  Dedicated controls  Behaviour during big ears  Recovery  Spontaneous in 3 a to 5 a B Sportaneous in less than 3 a A Dive forward on 50° A Stable flight  A Stable flight  Behaviour during big ears  Recovery  Spontaneous in 3 a to 5 a B Sportaneous in less than 3 a A Dive forward on 50° A Dive forward on 50° A A Dive forward on 50° A A Stable flight  A Stable flight  Behaviour during big ears  Recovery  Spontaneous in 3 a to 5 a B Sportaneous in less than 3 a A Dive forward on 50° A Dive			Α	No	Α
Cascade occurs  No A  19. B-line stall A  Changing course less than 45° A  Changing course less than 3 s  A  Course occurs  No A  Cascade course  Change of the 30° to 30° A  Course of the 30° to 30° to 30° A  Course of the 30° to 30° to 30° A  Course of the 30° to 30° to 30° to 3	18. Recovery from a developed spin	В			
A Change of course before release Change of course before release Change of course before release Remains stable with straight span A Recovery Spontaneous in less than 45° A Remains stable with straight span A Recovery Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward or to 30° A Dedicated controls A Dedicated controls A Dive forward or to 30° A Di	Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in 90° to 180°	В
Change of course before release  Change of course before release  Remains stable with straight span  A Recovery  Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Dive forward on to 30°  A Dedicated controls  A Dedicated controls  A Dedicated controls  A Dedicated controls  A Dive forward on to 30°  A Dedicated controls  A Dive forward on to 30°  A Stable flight  A Dive forward on to 30°  A Div	Cascade occurs	No	Α	No	Α
Behaviour before release Remains stable with straight span A Remains stable with straight span A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0° to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A Dedicated controls A Dedicated controls A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dive forwa					
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0° to 30° A No A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dive forward	Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Dive forward angle on exit  Dive forward 0° to 30°  No  A  Dive forward 0° to 30°  No  A  No  A  No  A  No  A  No  A  A  Dive forward 0° to 30°  A  A  A  Dive forward 0° to 30°  A  A  Dive forward 0° to 30°  A  Dedicated controls  A  Dive forward angle on exit  Dive forward 0° to 30°  A  Dedicated controls  A  Dedicated contr	Behaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
Cascade occurs  No No A No A No A No A A No A A 20. Big ears Entry procedure Dedicated controls A Dedicated controls A Dedicated controls A Stable flight A Stable flight A Stable flight A Stable flight A Dive forward angle on exit Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dive forward 0° to 30° A Dedicated controls A Dive forward angle on exit Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Dedicated controls A Dive forward 0° to 30° A Stable flight A Stable flight A Stable flight A Stable flight A Dive forward 0° to 30°	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Behaviour during big ears  Stable flight  A Stable flight  B Setry procedure  Dedicated controls  A Dive forward 0° to 30°  A Dedicated controls  A Stable flight  A S	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Entry procedure  Dedicated controls A Dedicated controls A Stable flight A Dive forward angle on exit  Dive forward 0° to 30° A Dive forward 0° to 30° A Dedicated controls A Dedicat	Cascade occurs	No	Α	No	Α
Behaviour during big ears  Stable flight A Spontaneous in 3 s to 5 s B Spontaneous in less than 3 s A Dive forward on to 300000000000000000000000000000000000	_				
Recovery Spontaneous in 3 s to 5 s B Spontaneous in less than 3 s A  Dive forward or to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A  21. Big ears in accelerated flight B Entry procedure Dedicated controls A Dedicated controls A Stable flight A Dive forward or to 30° A Dive forwa	Entry procedure	Dedicated controls	А	Dedicated controls	А
Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30°  A Dedicated controls  A Dedicate	Behaviour during big ears	Stable flight	Α	Stable flight	Α
21. Big ears in accelerated flight Entry procedure Dedicated controls A Stable flight A Stable flight A Stable flight A Stable flight A Dive forward angle on exit Dive forward 0° to 30° A Div	Recovery	Spontaneous in 3 s to 5 s	В	Spontaneous in less than 3 s	Α
Entry procedure  Dedicated controls A Dedicated controls A Stable flight A Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A Stable flight	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Behaviour during big ears  Stable flight  A Dive forward on the set than a further of the set of the second of the set of the second of the set of the second of th					
Recovery	Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30°  A Behaviour immediately after releasing the accelerator while maintaining big ears  22. Alternative means of directional control  180° turn achievable in 20 s  Yes  A Yes  A Stable flight  A Stable flight  A Stable flight  A Stable flight  A Pres  A Pres  A Pres  A Pres  A Pres  Procedure works as described  A No  A	Behaviour during big ears	Stable flight	Α	Stable flight	Α
Behaviour immediately after releasing the accelerator while maintaining big ears  22. Alternative means of directional control 180° turn achievable in 20 s  No A  Stall or spin occurs  No A  No A  No A  23. Any other flight procedure and/or configuration described in the user's manual Procedure works as described  not available  not available  0 not available  0 not available  0	Recovery		В	Spontaneous in less than 3 s	Α
while maintaining big ears  22. Alternative means of directional control  180° turn achievable in 20 s  Yes  A  Yes  A  Stall or spin occurs  No  A  No  A  No  A  23. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described  not available  o	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
180° turn achievable in 20 s  Yes  A Yes  A Stall or spin occurs  No  No  A No  A  23. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described  not available  0		Stable flight	Α	Stable flight	Α
Stall or spin occurs  No A No A No A  23. Any other flight procedure and/or configuration described in the user's manual Procedure works as described  not available  0 not available 0 not available 0 not available 0				West	
23. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available 0 not available 0  Procedure suitable for novice pilots not available 0 not available 0	180° turn achievable in 20 s	res	А	res	А
configuration described in the user's manual  Procedure works as described not available 0 not available 0  Procedure suitable for novice pilots not available 0 not available 0  O not available 0	Stall or spin occurs	No	Α	No	Α
Procedure works as described     not available     0 not available     0       Procedure suitable for novice pilots     not available     0 not available     0	23. Any other flight procedure and/or configuration described in the user's manual	0			
Troccadio callabio for horizo piloto		not available	0	not available	0
Cascade occurs 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