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

AIR TURQUOISE SA certified by

Flight test report: EN

ISO 9001
BUREAU VERITAS
Certification

Manufacturer Onika Paragliders Certification number PG_0534.2012

Address São Pedro de Alcântara 3980 Magalhães Bastos , Rio 27. 01. 2012

de Janeiro Rio - RJ

Brazil

Representative None Place of test Villeneuve

Glider model Lancer XC 2 L Classification C

Trimmer no

Test pilot Thurnheer Claude Zoller Alain

Harness	Gin Gliders - Gingo M		Gin Gliders - Gingo 2 L	
Total weight in flight (kg)	95		125	
1. Inflation/Take-off	Α			
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	Α			
Special landing technique required	No	Α	No	Α
3. Speed in straight flight	Α			
Trim speed more than 30 km/h	Yes	Α	Yes	Α
Speed range using the controls larger than 10 km/h	Yes	Α	Yes	Α
Minimum speed	Less than 25 km/h	Α	Less than 25 km/h	Α
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	not available	0	not available	0
Max. weight in flight 80 kg to 100 kg				
Symmetric control pressure / travel	Increasing / greater than 60 cm	Α	not available	0
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	not available	0	Increasing / greater than 65 cm	Α
5. Pitch stability exiting accelerated flight	Α			
Dive forward angle on exit	Dive forward less than 30°	Α	Dive forward less than 30°	Α
Collapse occurs	No	Α	No	Α
6. Pitch stability operating controls during accelerated flight	Α			
Collapse occurs	No	Α	No	Α
7. Roll stability and damping	Α			
Oscillations	Reducing	Α	Reducing	Α
8. Stability in gentle spirals	Α			
Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour in a steeply banked turn	В			
Sink rate after two turns	More than 14 m/s	В	More than 14 m/s	В
10. Symmetric front collapse	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
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	Α	Dive forward 0° to 30° / Keeping	Α
2110 forward ungle on oak? Change of course	course	,,	course	, ,
Cascade occurs	No	Α	No	Α
11. Exiting deep stall (parachutal stall)	A			
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	A			
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	С			
With 50% 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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% 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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 50% collapse and 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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% collapse and 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 45° to 60°	С
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	Α	Yes, no turn reversal	С
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
15. Directional control with a maintained asymmetric collapse	Α			
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 symmetric control travel	Α	More than 50 % of the symmetric control travel	Α

Spin occurs	16. Trim speed spin tendency	A			
Spin occurs No A No A No A No A No No	Spin occurs	No	Α	No	Α
18. Recovery from a developed spin Spin rotation angle after release Stops spinning in less than 90° A Stops spinning in less than 90° A No A Dedicated controls A No A No	17. Low speed spin tendency	A			
Spin rotation angle after release Stops spinning in less than 90° A Cascade occurs No	Spin occurs	No	Α	No	Α
Cascade occurs No No No No No No No N	18. Recovery from a developed spin	Α			
19. B-line stall Change of course before release Changing course less than 45° A A Changing course less than 45° A A Changing the course like the 45° A Changing the 64° A A A A A A A A A	Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Change of course before release Remains stable with straight span Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0 release Remains stable with straight span Recovery Spontaneous in less than 3 s A Dive forward 0 re to 30 a A Dive forward 0 re to	Cascade occurs	No	Α	No	Α
Remains stable with straight span A Remains stable with straight span A Recovery	19. B-line stall	A			
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0° to 30° A	Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Dive forward angle on exit Cascade occurs No No A	Behaviour before release	S S S S S S S S S S S S S S S S S S S	Α	Remains stable with straight span	Α
Cascade occurs No A No A 20. Big ears B Entry procedure Dedicated controls A Dedicated controls A Behaviour during big ears Stable flight A Stable flight A Stable flight A Recovery Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s B Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A 21. Big ears in accelerated flight B B Recovery through pilot action in less than a further 3 s B B Entry procedure Dedicated controls A Dedicated controls A Recovery B B B B Entry procedure Dedicated controls A Dedicated controls A Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s 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 A Stable flight A Stable flight	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
20. Big ears B Entry procedure Dedicated controls A Dedicated controls A Behaviour during big ears Stable flight A Stable flight A Recovery Recovery through pilot action in less than a further 3 s Benaviour during big ears B Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0° to 30° A 21. Big ears in accelerated flight B Entry procedure Dedicated controls A Stable flight A Stable flight A Stable flight A Stable flight A Recovery Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s B Dive forward angle on exit Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s B Dive forward angle on exit Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than a further 3 s B Recovery through pilot action in less than 5 less	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 or to 30° A Dive forward 0° to 30° A Dedicated controls A Dedicated controls A Dedicated controls A Dedicated controls A Stable flight A Stable	Cascade occurs	No	Α	No	Α
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Recovery through pilot action in less than a further 3 s	Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Dive forward angle on exit Dive forward 0° to 30° Dedicated controls B Entry procedure Dedicated controls Dedicated controls Dedicated controls Stable flight A Dive forward angle on exit Dive forward angle on exit Dive forward 0° to 30° Dive forward angle on exit Dive forward 0° to 30° Dive forward	Behaviour during big ears	Stable flight	Α	Stable flight	Α
21. Big ears in accelerated flight B Entry procedure Dedicated controls A Dedicated controls A Behaviour during big ears Stable flight A Stable flight A Recovery Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be Recovery through pilot action in less than a further 3 s Be recovery through pilot action in less than a further 3 s Be recovery through pilot action in less than a further 3 s Be recovery through pilot action in less than a further 3 s Be recovery through pilot action in less than a further 3 s Be recovery through pilot action in less than a further 3 s A Dive forward 0° to 30° A A Stable flight A Less than 720°, spontaneous exit A Less than 720°, spon	Recovery		В		В
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Recovery through pilot action in less than a further 3 s Dive forward angle on exit Dive forward 0° to 30° A Stable flight A Stable flig	Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Dive forward angle on exit Dive forward 0° to 30° A Stable flight A Stable f	Behaviour during big ears	Stable flight	Α	Stable flight	Α
Behaviour immediately after releasing the accelerator while maintaining big ears 22. Behaviour exiting a steep spiral A Tendency to return to straight flight Spontaneous exit A Spontaneous exit A Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 17 22 23. Alternative means of directional control A 180° turn achievable in 20 s Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available not available o not available	Recovery		В		В
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Turn angle to recover normal flight Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 17 22 23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No No A No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available not available not available onot available	22. Behaviour exiting a steep spiral	Α			
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23. Alternative means of directional control 180° turn achievable in 20 s Yes A Yes A Yes A Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available o not available	Turn angle to recover normal flight		Α		Α
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Stall or spin occurs No A No A No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available not available o scacade occurs not available o not available	23. Alternative means of directional control	Α			
24. 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 25. Comments of test pilot	180° turn achievable in 20 s	Yes	Α	Yes	Α
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Procedure suitable for novice pilots not available 0 not available 0 Cascade occurs not available 0 not available 0 not available 0 25. Comments of test pilot		0			
Cascade occurs not available 0 not available 0 25. Comments of test pilot	Procedure works as described	not available	0	not available	0
25. Comments of test pilot	Procedure suitable for novice pilots	not available	0	not available	0
	Cascade occurs	not available	0	not available	0
Comments	25. Comments of test pilot				
	Comments				