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AIR TURQUOISE SA certified by

Flight test report: EN

ISO 9001
BUREAU VERITAS
Certification

Manufacturer Windtech Paragliders Certification number PG_0569.2012
Address Francisco Rodríguez, 7 / PO Date of flight test 11. 05. 2012

Box 269 33280

33201 GIJON - Asturias

Spain

Representative None Place of test Villeneuve

Glider model Ru-Bi 39 Classification B

Trimmer yes: opened

Test pilotThurnheer ClaudeBerruex GillesHarnessSup'Air - Evasion BiAdvance - Bi Pro 2

	105		Advance Billo2	
Total weight in flight (kg)	125		200	
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	В			
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	25 km/h to 30 km/h	В	25 km/h to 30 km/h	В
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	not available	0	not available	0
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	Increasing / greater than 65 cm	Α	Increasing / greater than 65 cm	Α
5. Pitch stability exiting accelerated flight	0			
Dive forward angle on exit	not available	0	not available	0
Collapse occurs	not available	0	not available	0
6. Pitch stability operating controls during accelerated flight	0			
Collapse occurs	not available	0	not available	0
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	12 m/s to 14 m/s	Α	More than 14 m/s	В
10. Symmetric front collapse	В			
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in 3 s to 5 s	В	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	not available	0	not available	0

Recovery	not available	0	not available	0
Dive forward angle on exit / Change of course	not available	0	not available	0
Cascade occurs	not available	0	not available	0
11. Exiting deep stall (parachutal stall)	В		not available	Ü
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 30° to 60°	В
Change of course	Changing course less than 45°	Α	Changing course less than 45°	A
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	В	- ` `		, ,
Dive forward angle on exit	Dive forward 30° to 60°	В	Dive forward 30° to 60°	В
Collapse	No collapse	Α	No collapse	A
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	A
14. Asymmetric collapse	B		Wost in Cs ugnt	А
With 50% collapse	5			
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 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				
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	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
With 75% collapse and accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
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

16. Trim speed spin tendency	Α			
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 30° to 60°	Α
Cascade occurs	No	Α	No	Α
20. Big ears	Α			
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
21. Big ears in accelerated flight	0			
Entry procedure	not available	0	not available	0
Behaviour during big ears	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Behaviour immediately after releasing the accelerator while maintaining big ears	not available	0	not available	0
22. Behaviour exiting a steep spiral	Α			
Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
Sink rate when evaluating spiral stability [m/s]	16		25	
23. Alternative means of directional control	A			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	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				
Comments				