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## AIR TURQUOISE SA certified by



ISO 9001 BUREAU VERITAS

Manufacturer	Bruce Goldsmith Design GmbH	Certification number	PG_0862.2013	1820
Address	Hügelweg, 12 9400 Wolfsberg Austria	Date of flight test	24. 04. 2013	
Representative	Bruce Goldsmith	Place of test	Villeneuve	
Glider model	Tala lite S	Classification	С	
Trimmer	no			

-	Fukuoka Seiko Sup' Air - Altiplume S 65		Thurnheer Claude Niviuk Gliders - Hamak 2 M 85	
1. Inflation/Take-off	Α			
Rising behaviour	Smooth, easy and constant rising	А	Smooth, easy and constant rising	А
Special take off technique required	No	А	No	А
2. Landing	Α			
Special landing technique required	No	А	No	А
3. Speed in straight flight	Α			
Trim speed more than 30 km/h	Yes	А	Yes	А
Speed range using the controls larger than 10 km/h	Yes	А	Yes	А
Minimum speed	Less than 25 km/h	А	Less than 25 km/h	А
4. Control movement	С			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	Increasing / greater than 55 cm	А	not available	0
Max. weight in flight 80 kg to 100 kg				
Symmetric control pressure / travel	not available	0	Increasing / 45 cm to 60 cm	С
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	not available	0	not available	0
5. Pitch stability exiting accelerated flight	Α			
Dive forward angle on exit	Dive forward less than 30°	А	Dive forward less than 30°	А
Collapse occurs	No	А	No	А
6. Pitch stability operating controls during accelerated flight	Α			
Collapse occurs	No	А	No	А
7. Roll stability and damping	Α			
Oscillations	Reducing	А	Reducing	А
8. Stability in gentle spirals	Α			
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	А
9. Behaviour in a steeply banked turn	В			
Sink rate after two turns	Up to 12 m/s	А	More than 14 m/s	В
10. Symmetric front collapse	В			
Entry	Rocking back less than $45^{\circ}$	А	Rocking back less than 45°	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in 3 s to 5 s	В
Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	А	No	А
With accelerator				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A

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Recovery	Spontaneous in less than 3 s	A	Spontaneous in 3 s to 5 s	B
Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
11. Exiting deep stall (parachutal stall)	Α			
Deep stall achieved	Yes	А	Yes	A
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Change of course	Changing course less than 45°	А	Changing course less than 45°	А
Cascade occurs	No	А	No	А
12. High angle of attack recovery	Α			
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Cascade occurs	No	А	No	A
13. Recovery from a developed full stall	Α			
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Collapse	No collapse	А	No collapse	А
Cascade occurs (other than collapses)	No	А	No	А
Rocking back	Less than 45°	А	Less than 45°	А
Line tension	Most lines tight	А	Most lines tight	А
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°	A	Less than 90° / Dive or roll angle 0° to 15°	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
With 75% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 45° to 60°	С	$90^\circ$ to $180^\circ$ / Dive or roll angle $45^\circ$ to $60^\circ$	С
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	Yes, no turn reversal	С
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
With 50% 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	Less than 90° / Dive or roll angle $15^\circ$ to $45^\circ$	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
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	$90^\circ$ to $180^\circ$ / Dive or roll angle $15^\circ$ to $45^\circ$	В
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No	А	No	А
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
15. Directional control with a maintained asymmetric collapse	Α			
Able to keep course	Yes	А	Yes	А
180° turn away from the collapsed side possible in 10 s	Yes	А	Yes	А
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	A	More than 50 % of the symmetric control travel	A

16. Trim speed spin tendency	Α			
Spin occurs	No	А	No	А
17. Low speed spin tendency	Α			
Spin occurs	No	А	No	А
18. Recovery from a developed spin	А			
Spin rotation angle after release	Stops spinning in less than 90°	А	Stops spinning in less than 90°	А
Cascade occurs	No	А	No	А
19. B-line stall	Α			
Change of course before release	Changing course less than 45°	А	Changing course less than 45°	А
Behaviour before release	Remains stable with straight span	A	Remains stable with straight span	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Cascade occurs	No	А	No	А
20. Big ears	В			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Recovery through pilot action in less than a further 3 s	В	Recovery through pilot action in less than a further 3 s	В
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
21. Big ears in accelerated flight	В			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Recovery through pilot action in less than a further 3 s	В	Recovery through pilot action in less than a further 3 s	В
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	А	Stable flight	А
22. Behaviour exiting a steep spiral	Α			
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	А
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	А
Sink rate when evaluating spiral stability [m/s]	14		20	
23. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	А	Yes	А
Stall or spin occurs	No	А	No	А
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				