



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

Manufacturer	Onepolar	Certification number	PG_2239.2023	
Address	14/F workshop E Yip Cheung Center Chai Wan Hong Kong	Flight test	15.03.2016	
Glider model	Wave Large	Classification	A	
Serial number	0216-2540-08	Representative	None	
Trimmer	no	Place of test	Villeneuve	
Folding lines used	no			
Test pilot	Claude Thurnheer		Alain Zoller	
Harness	Niviuk Hamak M		Gin Gliders Inc. Gingo 2 L	
Harness to risers distance (cm)	42		43	
Distance between risers (cm)	44		46	
Total weight in flight (kg)	95		120	
1. Inflation/Take-off	A			
Rising behaviour	Smooth, easy and constant rising	A	Smooth, easy and constant rising	A
Special take off technique required	No	A	No	A
2. Landing	A			
Special landing technique required	No	A	No	A
3. Speed in straight flight	A			
Trim speed more than 30 km/h	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	A	Less than 25 km/h	A
4. Control movement	A			
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	A	Increasing / greater than 65 cm	A
5. Pitch stability exiting accelerated flight	A			
Dive forward angle on exit	Dive forward less than 30°	A	Dive forward less than 30°	A
Collapse occurs	No	A	No	A
6. Pitch stability operating controls during accelerated flight	A			
Collapse occurs	No	A	No	A
7. Roll stability and damping	A			
Oscillations	Reducing	A	Reducing	A
8. Stability in gentle spirals	A			
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A

9. Behaviour exiting a fully developed spiral dive				
Initial response of glider (first 180°)	A Immediate reduction of rate of turn	A	Immediate reduction of rate of turn	A
Tendency to return to straight flight	Spontaneous exit (g force decreasing, rate of turn decreasing)	A	Spontaneous exit (g force decreasing, rate of turn decreasing)	A
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	A
10. Symmetric front collapse				
Approximately 30 % chord				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
At least 50% chord				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
With accelerator				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
11. Exiting deep stall (parachutal stall)				
Deep stall achieved	A Yes	A	Yes	A
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°	A	Dive forward 0° to 30°	A
Change of course	Changing course less than 45°	A	Changing course less than 45°	A
Cascade occurs	No	A	No	A
12. High angle of attack recovery				
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Cascade occurs	No	A	No	A
13. Recovery from a developed full stall				
Dive forward angle on exit	A Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Collapse	No collapse	A	No collapse	A
Cascade occurs (other than collapses)	No	A	No	A

Rocking back	Less than 45°	A	Less than 45°	A
Line tension	Most lines tight	A	Most lines tight	A

14. Asymmetric collapse **A**

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°	A	Less than 90° / Dive or roll angle 0° to 15°	A
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A

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°	A	Less than 90° / Dive or roll angle 15° to 45°	A
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A

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°	A	Less than 90° / Dive or roll angle 0° to 15°	A
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A

Large 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°	A	Less than 90° / Dive or roll angle 15° to 45°	A
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A	No (or only a small number of collapsed cells with a spontaneous re-inflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A

Folding lines used	No	A No	A
15. Directional control with a maintained asymmetric collapse	A		
Able to keep course	Yes	A Yes	A
180° turn away from the collapsed side possible in 10 s	Yes	A Yes	A
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	A		
Spin occurs	No	A No	A
17. Low speed spin tendency	A		
Spin occurs	No	A No	A
18. Recovery from a developed spin	A		
Spin rotation angle after release	Stops spinning in less than 90°	A Stops spinning in less than 90°	A
Cascade occurs	No	A No	A
19. B-line stall	A		
Change of course before release	Changing course less than 45°	A Changing course less than 45°	A
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 angle on exit	Dive forward 0° to 30°	A Dive forward 0° to 30°	A
Cascade occurs	No	A No	A
20. Big ears	A		
Entry procedure	Dedicated controls	A Dedicated controls	A
Behaviour during big ears	Stable flight	A Stable flight	A
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°	A Dive forward 0° to 30°	A
21. Big ears in accelerated flight	A		
Entry procedure	Dedicated controls	A Dedicated controls	A
Behaviour during big ears	Stable flight	A Stable flight	A
Recovery	Spontaneous in 3 s to 5 s	A Spontaneous in 3 s to 5 s	A
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	Stable flight	A Stable flight	A
22. Alternative means of directional control	A		
180° turn achievable in 20 s	Yes	A Yes	A
Stall or spin occurs	No	A No	A
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