

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

Flight test report: EN 926-2:2013

Manufacturer Address	ADVANCE Thun AG Uttigenstrasse 87 3600 Thun Switzerland	Certification number Date of flight test		PG_0984.2015 04. 11. 2015	
Glider model	Epsilon 8 29	Classification		В	
Serial number	64362	Representative		None	
Trimmer	no	Place of test		Villeneuve	
Test pilot		Thurnheer Claude		Zoller Alain	
Harness		Niviuk - Hamak M		Gin Gliders - Gingo 2 L	
Harness to risers distance (cm)		44		44	
Distance between risers (cm)		44		46	
Total weight in flight (kg)		95		140	
rotai weigiit iii iligi	it (kg)	93		140	
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	•	No	Α	No	Α
3. Speed in straight fligh		Α			
Trim speed more than 30		Yes	Α	Yes	Α
Speed range using the co	ntrols 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 ka				
Symmetric control pressure / travel		not available	0	not available	0
Max. weight in flight 80 l					
Symmetric control pressure / travel		Increasing / greater than 60 cm	Α	not available	0
Max. weight in flight gre	ater than 100 kg				
Symmetric control pressur	<u>₹</u>	not available	0	Increasing / greater than 65 cm	Α
5. Pitch stability exiting		A			
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 operation	ng controls during accelerated	Α			
Collapse occurs		No	Α	No	Α
7. Roll stability and dam	ping	A			
Oscillations		Reducing	Α	Reducing	Α
8. Stability in gentle spir	rals	Α			
Tendency to return to stra		Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour exiting a fu	Illy developed spiral dive	В			
Initial response of glider (f	irst 180°)	No immediate reaction	В	Immediate reduction of rate of turn	Α
Tendency to return to stra	ight 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 norm	mal flight	Less than 720°, spontaneous recovery	Α	720° to 1 080°, spontaneous recovery	В

Approximately 30 % chord				
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				
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
With an along the				
With accelerator	Dealing beat less than 450	^	Dealing healther than 459	
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
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)	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	Α			
•			Chantanagua in loss than 2 a	Λ.
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Recovery Cascade occurs	Spontaneous in less than 3 s No	A A	No	A
Cascade occurs 13. Recovery from a developed full stall	·		•	
Cascade occurs	No		•	
Cascade occurs 13. Recovery from a developed full stall	No B	A	No	Α
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit	No B Dive forward 0° to 30°	A	No Dive forward 30° to 60°	A B
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse	No B Dive forward 0° to 30° No collapse	A A A	No Dive forward 30° to 60° No collapse	A B A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses)	No B Dive forward 0° to 30° No collapse No	A A A	No Dive forward 30° to 60° No collapse No	A B A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back	No B Dive forward 0° to 30° No collapse No Less than 45°	A A A A	No Dive forward 30° to 60° No collapse No Less than 45°	B A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight	A A A A	No Dive forward 30° to 60° No collapse No Less than 45°	B A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B	A A A A	No Dive forward 30° to 60° No collapse No Less than 45° Most lines tight	B A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15°	A A A A A A	No Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15°	B A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation	A A A A A A A A	No Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation	B A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360°	A A A A A A A A	No Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360°	B A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation	A A A A A A A A	No Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation	B A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a	A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous	B A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation)	A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation)	B A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No	B A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No	B A A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No	B A A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation / Maximum dive forward or	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle	B A A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle 15° to 45°	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle 15° to 45°	B A A A A A A A A A A A A A A A A A A A
Cascade occurs 13. Recovery from a developed full stall Dive forward angle on exit Collapse Cascade occurs (other than collapses) Rocking back Line tension 14. Asymmetric collapse Small asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation / Maximum dive forward or	No B Dive forward 0° to 30° No collapse No Less than 45° Most lines tight B Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle	A A A A A A A A A A A A A A A A A A A	Dive forward 30° to 60° No collapse No Less than 45° Most lines tight Less than 90° / Dive or roll angle 0° to 15° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous reinflation) No No No Less than 90° / Dive or roll angle	B A A A A A A A A A A A

Α

10. Symmetric front collapse

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	A	No	A
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 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 with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or	Less than 90° / Dive or roll angle	Α	90° to 180° / Dive or roll angle 15°	В
roll angle	15° to 45°	^	to 45°	Ь
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
15. Directional control with a maintained asymmetric	A			,,
collapse				
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	Α	More than 50 % of the symmetric	Α
Amount of control range between turn and stail of spin	symmetric control travel	^	control travel	^
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	A			
Spin occurs	No	Α	No	Α
18. Recovery from a developed spin	В			
Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in 90° to 180°	В
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 0° to 30°	Α
Cascade occurs	No	Α	No	Α
20. Big ears	A	•		, ,
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
• •				
Behaviour during big ears	Stable flight	A	Stable flight	A
Recovery	Spontaneous in less than 3 s	Α.	Spontaneous in less than 3 s	A
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	A			
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

Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	А	Stable flight	Α
22. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
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

Comments