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Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Flight test report: EN 926-2:2013 & LTF 91/09

Manufacturer	Davinci Products Inc.	Certification number	PG_1242.2017
Address	53 sinchon-gil, Okcheon-	Date of flight test	04. 10. 2017

myeon, Yangpyeong-gun 12505 Gyeonggi-do Republic of Korea

Glider model	Rhythm XS	Classification	Α
Serial number	ART-XS170702-BLR	Representative	None
Trimmer	no	Place of test	Villeneuve
Folding lines used	no		

Test pilot	Dupont Philippe	Thurnheer Claude		
Harness	Supair - Altiplume S	Sup' Air - Altiplume S		
Harness to risers distance (cm)	43	43		
Distance between risers (cm)	40	40		
Total weight in flight (kg)	55	75		

1. Inflation/Take-off	A			
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	A			
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	Increasing / greater than 55 cm	Α	Increasing / greater than 55 cm	Α
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	not available	0	not available	0
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 exiting a fully developed spiral dive	Α			
Initial response of glider (first 180°)	Immediate reduction of rate of turn	Α	Immediate reduction of rate of turn	Α
Tendency to return to straight flight	Spontaneous exit (g force decreasing, rate of turn decreasing)	Α	Spontaneous exit (g force decreasing, rate of turn decreasing)	Δ

40, symmetric front collapse A Approximately 30 % chord Collapse (a) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
Entry Recovery Recove	10. Symmetric front collapse	A			
Entry Recovery Recove	Approximately 30 % chord				
Recovery		Rocking back less than 45°	Δ	Rocking back less than 45°	Δ
Dive forward ongle on exit Change of course Dive forward 0° to 30° Keeping course A course	·	•		•	
Course	•	•		•	
Folding lines used No No No No No No No N	Dive forward angle on exit change of course		A		A
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Entity	Folding lines used	No		No	
Entity	At least 50% chord				
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Dive forward angle on exit / Change of course Cascade occurs No N		•		•	
Course	•	•		·	
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Collapse on the opposite side occurs No (or only a small number of collapsed cells with a spontaneous No (or only a small number of collapsed cells with a spontaneous	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
collapsed cells with a collapsed cells with a spontaneous	Total change of course	Less than 360°	Α	Less than 360°	Α
spontaneous reinflation) reinflation)	Collapse on the opposite side occurs	collapsed cells with a	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs No A No A	Twist occurs	,	Α		Α
Cascade occurs No A No A					
Folding lines used No No			-		
	-				
Large asymmetric collapse					
Change of course until re-inflation / Maximum dive forward or roll angle Less than 90° / Dive or roll angle A Less than 90	• .		Α		Α
Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course Less than 360° A Less than 360° A	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	^	No	
Folding lines used	NO		NO	
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 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 (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		No	
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°	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 (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		No	
15. Directional control with a maintained asymmetric	Α			
collapse			v.	
Able to keep course	Yes	A	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	Α			
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 0° to 30°	Α
Cascade occurs	No	A	No	A
	A			\wedge
20. Big ears		۸	Dedicated centrals	٨
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°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	A Dadicated controls	Α.	Dadiastad acretical	
Entry procedure	Dedicated controls	A	Dedicated controls	A
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	Α	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