

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

Manufacturer	<b>Davinci Products Inc.</b>	Certification number	PG_1332.2018
Address	53 sinchon-gil, Okcheon-myeon, Yangpyeong-gun 12505 Gyeonggi-do Republic of Korea	Flight test	20.12.2017
Glider model	<b>XCHORD M</b>	<b>Classification</b>	<b>D</b>
Serial number	XC17M-174004	Representative	None
Trimmer	no	Place of test	Villeneuve
Folding lines used	yes		

<b>Test pilot</b>	Claude Thurnheer	Alain Zoller
<b>Harness</b>	Niviuk -	Gin Gliders -
<b>Harness to risers distance (cm)</b>	44	43
<b>Distance between risers (cm)</b>	44	46
<b>Total weight in flight (kg)</b>	85	105

1. Inflation/Take-off	C			
Rising behaviour	Overshoots, shall be slowed down to avoid a front collapse	C	Overshoots, shall be slowed down to avoid a front collapse	C
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	B			
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	25 km/h to 30 km/h	B	25 km/h to 30 km/h	B
4. Control movement	C			
<b>Max. weight in flight up to 80 kg</b>				
Symmetric control pressure / travel	not available	0	not available	0
<b>Max. weight in flight 80 kg to 100 kg</b>				
Symmetric control pressure / travel	Increasing / greater than 60 cm	A	not available	0
<b>Max. weight in flight greater than 100 kg</b>				
Symmetric control pressure / travel	not available	0	Increasing / 50 cm to 65 cm	C
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	D			
Initial response of glider (first 180°)	No immediate reaction	B	No immediate reaction	B
Tendency to return to straight flight	Turn remains constant (g force constant, rate of turn constant)	D	Turn remains constant (g force constant, rate of turn constant)	D
Turn angle to recover normal flight	With pilot action	D	With pilot action	D
10. Symmetric front collapse	D			
<b>Approximately 30 % chord</b>	Rocking back less than 45°	A	Rocking back less than 45°	A

Recovery	Recovery through pilot action in less than a further 3 s	D	Recovery through pilot action in less than a further 3 s	D
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	Yes		Yes	
<b>At least 50% chord</b>				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Recovery through pilot action in less than a further 3 s	D	Recovery through pilot action in less than a further 3 s	D
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 30° to 60° / Keeping course	B
Cascade occurs	No	A	No	A
Folding lines used	Yes		Yes	
<b>With accelerator</b>				
Entry	Rocking back less than 45°	A	Rocking back greater than 45°	C
Recovery	Recovery through pilot action in less than a further 3 s	D	Recovery through pilot action in less than a further 3 s	D
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 30° to 60° / Keeping course	B
Cascade occurs	No	A	No	A
Folding lines used	Yes		Yes	
<b>11. Exiting deep stall (parachutal stall)</b>				
<b>A</b>				
Deep stall achieved	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
<b>12. High angle of attack recovery</b>				
<b>D</b>				
Recovery	Spontaneous in 3 s to 5 s	C	Recovery through pilot action in less than a further 3 s	D
Cascade occurs	No	A	No	A
<b>13. Recovery from a developed full stall</b>				
<b>C</b>				
Dive forward angle on exit	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	Greater than 45°	C
Line tension	Most lines tight	A	Most lines tight	A
<b>14. Asymmetric collapse</b>				
<b>D</b>				
<b>Small asymmetric collapse</b>				
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	Inflates in less than 3 s from start of pilot action	C	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	Yes		Yes	
<b>Large asymmetric collapse</b>				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 45° to 60°	C	Less than 90° / Dive or roll angle 60° to 90°	D
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	C	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	Yes, no turn reversal	C	Yes, no turn reversal	C
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	Yes		Yes	

**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	Inflates in less than 3 s from start of pilot action	C	Inflates in 3 s to 5 s from start of pilot action	D
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 reinflation)	A	Yes, no turn reversal	C
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	Yes		Yes	

**Large asymmetric collapse with fully activated accelerator**

Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	B	90° to 180° / Dive or roll angle 15° to 45°	B
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	C	Inflates in 3 s to 5 s from start of pilot action	D
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 reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	Yes		Yes	

**15. Directional control with a maintained asymmetric collapse**

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**

Spin occurs	No	A	No	A
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**17. Low speed spin tendency**

Spin occurs	Yes	D	No	A
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**18. Recovery from a developed spin**

Spin rotation angle after release	Stops spinning in 90° to 180°	B	Stops spinning in 90° to 180°	B
Cascade occurs	No	A	No	A

**19. B-line stall**

Change of course before release	not available	0	not available	0
Behaviour before release	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Cascade occurs	not available	0	not available	0

**20. Big ears**

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	B	Spontaneous in 3 s to 5 s	B
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A

**21. Big ears in accelerated flight**

Entry procedure	Dedicated controls	A	Dedicated controls	A
Behaviour during big ears	Stable flight	A	Stable flight	A
Recovery	Recovery through pilot action in less than a further 3 s	B	Recovery through pilot action in less than a further 3 s	B
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**

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**

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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**