## Flight test report

Manufacturer Apco Aviation Ltd

Address 7, Chalamish St., Industrial park

38900 Caesarea

Israel

Representive Adam Weschler Type of glider Thrust HP S **Closed trimmer** Trimmer

PG 077.2007 Certification number Date of flight test 23.05.2007 Villeneuve Place of test



## Classification C

Test Pilot Claude Thurnheer

Harness sup air light

Total weight in flight 75 kg

Alain Zoller

Sky Paragliders - Axel 2 M 95 kg

		Min weight	Max weight
1. Inflation/Tal		wiii weigiit	wax weight
	Rising behaviour Special take off technique required	Smooth, easy and constant rising No A	
2. Landing	Special landing technique required	No A	No A
3. Speed in st		NO P	A NO
	Trim speed more than 30 km/h	Yes A	Yes A
	Speed range using the controls larger than 10 km/h	Yes	Yes A
	Minimum speed	Less than 25 km/h	Less than 25 km/h
4. Control mo	vement Max. weight in flight up to 80 kg		
	Symmetric control pressure/travel	Increasing, Greater than 55 cm	not available
	Max. weight in flight 80 kg to 100 kg	<b>.</b>	
	Symmetric control pressure/travel	not available	0 Increasing, Greater than 60 cm A
	Max. weight in flight greater than 100 kg Symmetric control pressure/travel	not available	0 not available
5. Pitch stabili	ity exiting accelerated flight	not available	Tiot available
	Dive forward angle on exit	Dive forward less than 30°	
	Collapse occurs	No A	No A
6. Pitch Stabili	ity operating controls during accelerated flight Collapse occurs	No A	A No A
7. Roll stabilit	y and damping		,
	Oscillations	Reducing A	Reducing A
8. Stability in	gentle spirals  Tendency to return to straight flight	Spontaneous exit	Spontaneous exit A
9. Behaviour i	n a steeply banked turn	Opontarieous exit	Oponiarieous exit
	Sink rate after two turns	More than 14 m/s	More than 14 m/s
10. Symmetric	front collapse	Desire has been then 450	Dealth had been then 450
	Entry Recovery	Rocking back less than 45°  Spontaneous in less than 3 s	3
	Dive forward angle on exit	Dive foward 0°to 30°, Keeping course	
	Cascade occurs	No A	
	With accelerator	5	
	Entry Recovery	Rocking back less than 45°  Spontaneous in less than 3 s	
	Dive forward angle on exit	Dive foward 0°to 30°, Keeping course	
	Cascade occurs	No A	
11. Exiting de	ep stall (parachutal stall)	V	N
	Deep stall achieved Recovery	Yes A Spontaneous in less than 3 s	
	Dive forward angle on exit	Dive forward 0°to 30°	
	Change of course	Changing course less than 45°	Changing course less than 45° A
40 111-15	Cascade occurs	No A	No A
12. High angle	e of attack recovery Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
	Cascade occurs	No A	
13. Recovery	from a developed full stall		
	Dive forward angle on exit Collapse	Dive forward 30° to 60° E  No collapse A	
	Cascade occurs (other than collapse)	No A	•
	Rocking back	Less than 45°	
	Line tension	Most line tight	Most line tight A
14. Asymmetr	ic collapse With 50% collapse-Maximum dive forward or roll angle		
	Change of course until re-inflation	Less than 90°, Dive or roll angle 0° to 15°	Less than 90°, Dive or roll angle 0° to 15°
	Re-inflation behaviour	Spontaneous re-inflation	
	Total change of course	Less than 360°	
	Collapse on the opposite side occurs Twist occurs	No A	A No A A
	Cascade occurs	No A	
	With 75% collapse-Maximum dive forward or roll angle		
	Change of course until re-inflation  Re-inflation behaviour	90° to 180°, Dive or roll angle 15° to 45°  Spontaneous re-inflation	· · · · · · · · · · · · · · · · · · ·
	Total change of course	Spontaneous re-inflation A Less than 360° A	· ·
	Collapse on the opposite side occurs	No A	
	Twist occurs	No A	No A
	Cascade occurs	No A	No A
	With 50% collapse and accelerator-Maximum dive forward of Change of course until re-inflation	r roll angle Less than 90°, Dive or roll angle 15° to 45°  A	N 90° to 180°, Dive or roll angle 15° to 45°
	Re-inflation behaviour	Spontaneous re-inflation	· · · · · · · · · · · · · · · · · · ·
	Total change of course	Less than 360°	Less than 360° A
	Collapse on the opposite side occurs	No A	No A

Twist occurs Cascade occurs Cascade occurs Charge of course and accelerator-Maximum dive forward or roll angle Charge of course until re-inflation Charge of course until re-inflation Charge of course Collapse on the opposels side occurs No						
With 75% collapse and accelerator-Maximum dive forward or roll angle Change of course unit re-inflation Re-inflation behaviour Spontaneous re-inflation A Less than 360" A No A N		Twist occurs	No			Α
Change of course until re-inflation Re-inflation behaviour Re-inflation behaviour Total change of course Less than 360" A Less than 360" A No				Α	No	Α
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Total change of course Collapse on the opposite side occurs No Collapse of the opposit						
Collapse on the opposite side occurs No A Tivits occurs No Cascade occurs Able to keep course Able to keep			•		· ·	
Twist occurs  No Cascade occurs  No No A						
Cascade occurs  Able to keep course Able to ke						
15. Directional control with a maintained asymmetric collapse  180° turn away from the collapsed side possible in 10 s Able to keep course 180° turn away from the collapsed side possible in 10 s About of control trange between turn and stall or spin 16. Trins speed spin tendency Spin accours No 17. Low speed spin tendency Spin accours Spin cocurs Spin						
Able to keep course 180° turn ways from the collapsed side possible in 10 s Amount of control range between turn and stall or spin  18. Frim speed spin tendency Spin occurs No			No	Α	No	Α
180° turn away from the collapsed side possible in 10 s	15. Directiona					
Amount of coritrol range between turn and stall or spin    St. Firin speed spin tendency   Spin occurs   Spin occurs   No						
15. Trim speed spin tendency Spin occurs No		, , ,				
Spin occurs  No A 17. Low speed spin tendency Spin occurs No A 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs No A 19. B-line stall Change of course before release Remains stable with straight span Recovery Spin for form and gene exit Dive forward angle on exit Dive forward of to 30° Stable flight Recovery Spontaneous in less than 3 s A Dedicated controls A A Dedicated controls A Dive forward of to 30° A D			More than 50 % of the symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
17. Low speed spin tendency Spin occurs No Spin occurs No Spin occurs Spin occurs Spin occurs Spin occurs No Spin occurs Spin occurs Spin occurs Spin occurs Spin occurs No A  18. Recovery from a developed spin Spin rotation angle after release No No A  19. B-line stall Change of course before release Remains stable with straight span Behaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward angle on exit Dive forward of to 30° A No A  20. Big ears Entry procedure Behaviour during big ears Stable flight Entry procedure Behaviour during big ears Stable flight Entry procedure Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward or to 30°	16. Trim spee					
Spin occurs No A No A No A No A 18. Recovery from a developed spin Spin rotation angle after release Stops spinning in less than 90° A No A N		The state of the s	No	Α	No	Α
18. Recovery from a developed spin Spin rotation angle after release Cascade occurs No No No A No A No A No A No A No A No	17. Low spee					
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19. B-line stall  Change of course before release     Remains stable with straight span     Recovery     Spontaneous in less than 3 s     Recovery     Spontaneous in less than 3 s     Remains stable with straight span     Recovery     Spontaneous in less than 3 s     Remains stable with straight span     Recovery     Spontaneous in less than 3 s     Remains stable with straight span     A Recovery     No  20. Big ears  Entry procedure     Behaviour during big ears     Stable flight     A Recovery     Spontaneous in less than 3 s     Dive forward or to 30°     A Stable flight     A Stable flight     A Stable flight     A Stable flight     A Spontaneous in less than 3 s     Dive forward or to 30°     A Dive forward or						
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21. Big ears in accelerated flight  Entry procedure Behaviour during big ears Stable flight Recovery Spontaneous in less than 3 s A Stable flight A Stable flight A Stable flight A Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward angle on exit Behaviour immediately after releasing the accelerator while Behaviour immediately after releasing the accelerator while Behaviour exiting a steep spiral Tendency to return to straight flight A Spontaneous exit A Less than 720°, spontaneous recovery A Less tha						
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22. Behaviour exiting a steep spiral Tendency to return to straight flight Spontaneous exit A Spontaneous exit A Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 20 m/s  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Yes A No  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Yes A Yes						
Tendency to return to straight flight Turn angle to recover normal flight Spontaneous exit A Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s]  20 m/s  23. Alternative means of directional control  180° turn achievable in 20 s Stall or spin occurs No A No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Yes A Procedure suitable for novice pilots Yes A			Stable flight	Α	Stable flight	Α
Turn angle to recover normal flight Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 20 m/s  23. Alternative means of directional control 180° turn achievable in 20 s Yes A Stall or spin occurs No A No A No A No A A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Yes A Yes A Yes A Yes A Cascade occurs No A No A No A No A Comments of test pilot	22. Behaviou					
Sink rate when evaluating spiral stability [m/s] 20 m/s  23. Alternative means of directional control  180° turn achievable in 20 s Yes A Stall or spin occurs No A No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Yes A Procedure suitable for novice pilots Yes A Cascade occurs No A  Comments of test pilot						
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Stall or spin occurs No A No A A No A A A A A A A A A A A A	23. Alternativ					
24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described Yes A  Procedure suitable for novice pilots Yes A  Cascade occurs No A  Comments of test pilot						
Procedure works as described Yes A Procedure suitable for novice pilots Yes A Cascade occurs No A Comments of test pilot				Α	No	Α
Procedure suitable for novice pilots Cascade occurs No No A Comments of test pilot	24. Any other					
Cascade occurs No A Comments of test pilot		Procedure works as described	Yes	Α	Yes	Α
Comments of test pilot		Procedure suitable for novice pilots	Yes	Α	Yes	Α
·		Cascade occurs	No	Α	No	Α
Comments no no	Comments of	test pilot				
		Comments	no		no	



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