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Route du Pré-au-Compte 8 • CH-1844 Villeneuve • +41 (0)21 965 65 65

test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

U-Turn

Manufacturer



Certification number PG_2362.2024

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

Manufacturei	U-Turn		Certification num	DCI	PG_2302.2024	
Address	Im Neuneck 1		Flight test		08.03.2024	
	78609 Tuningen		_			
	Germany					
Glider model	Passenger 3 44		Classification		В	
Serial number	LH-PAS3-343-55SK-8	3959	Representative		None	
Trimmer	Opened		Place of test		Villeneuve	
Folding lines used	no					
r oranig intoo acca						
Test pilot		Claude Thurnh	neer		Alexandre Jofresa	
Harness		Advance Thun	AG Bi-pro 3 M		Advance Thun AG Bi-pro 3 M	
Harness Harness to risers distance [cm]		42		42		
		55			55	
Distance between risers [cm]		33			33	
Total weight in flight [kg]		140			240	
1. Inflation/Take-off		В				
Rising behaviour		Easy rising, some pilo	t correction is required	В	Smooth, easy and constant rising	Α
Special take off technique	required	No		Α	No	Α
2. Landing		A				
<u>-</u>	roquirod	No		Α	No	Α
Special landing technique	required	NO		^	NO	^
3. Speed in straight fligh	nt	В				
Trim speed more than 30 km/h						
	km/h	Yes		Α	Yes	Α
Trim speed more than 30				Α		Α
Trim speed more than 30	km/h ntrols larger than 10 km/h	Yes		A A	Yes Yes	A
Trim speed more than 30 Speed range using the co		Yes		Α	Yes	Α
Trim speed more than 30						
Trim speed more than 30 Speed range using the co		Yes		Α	Yes	Α
Trim speed more than 30 Speed range using the co Minimum speed	ntrols larger than 10 km/h	Yes Less than 25 km/h		Α	Yes	Α
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement	ntrols larger than 10 km/h to 80 kg	Yes Less than 25 km/h		Α	Yes	Α
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu	ntrols larger than 10 km/h to 80 kg re / travel	Yes Less than 25 km/h		A	Yes 25 km/h to 30 km/h	В
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80	ntrols larger than 10 km/h to 80 kg re / travel kg to 100 kg	Yes Less than 25 km/h A not available		A A 0	Yes 25 km/h to 30 km/h not available	A B
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu	ntrols larger than 10 km/h to 80 kg re / travel kg to 100 kg	Yes Less than 25 km/h		A	Yes 25 km/h to 30 km/h	В
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu	to 80 kg re / travel kg to 100 kg re / travel	Yes Less than 25 km/h A not available		A A 0	Yes 25 km/h to 30 km/h not available	A B
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg	Yes Less than 25 km/h A not available not available	an 65 cm	A A O O	Yes 25 km/h to 30 km/h not available not available	A B 0
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg	Yes Less than 25 km/h A not available	an 65 cm	A A 0	Yes 25 km/h to 30 km/h not available	A B
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Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater th	an 65 cm	A A O O	Yes 25 km/h to 30 km/h not available not available	A B 0
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting Dive forward angle on existing	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater th O not available	an 65 cm	A A 0 A 0	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm not available	A B 0 0 A 0
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater the	an 65 cm	A A O A A	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm	A B 0 0 A
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting Dive forward angle on exi Collapse occurs 6. Pitch stability operati	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater th O not available	an 65 cm	A A 0 A 0	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm not available	A B 0 0 A 0
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting Dive forward angle on exi Collapse occurs	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater th O not available not available	an 65 cm	A A O O O	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm not available not available	A B 0 0 A 0
Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting Dive forward angle on exi Collapse occurs 6. Pitch stability operati	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight	Yes Less than 25 km/h A not available not available Increasing / greater th O not available not available	an 65 cm	A A 0 A 0	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm not available	A B 0 0 A 0
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Trim speed more than 30 Speed range using the co Minimum speed 4. Control movement Max. weight in flight up Symmetric control pressu Max. weight in flight 80 Symmetric control pressu Max. weight in flight gre Symmetric control pressu 5. Pitch stability exiting Dive forward angle on exi Collapse occurs 6. Pitch stability operati accelerated flight Collapse occurs	to 80 kg re / travel kg to 100 kg re / travel ater than 100 kg re / travel accelerated flight t	Yes Less than 25 km/h A not available not available Increasing / greater th O not available not available O not available	an 65 cm	A A O O O	Yes 25 km/h to 30 km/h not available not available Increasing / greater than 65 cm not available not available	A B 0 0 0 0 0
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9. Behaviour exiting a fully developed spiral dive	A			
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)	Α
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
10. Symmetric front collapse Approximately 30 % chord	A			
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	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Entry	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 No	A	No	A
Folding lines used	No	Α	No	A
With accelerator				
Entry	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit / Change of course	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
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	A Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	A
Recovery	No	A	No	A
Cascade occurs		۸	110	٨
13. Recovery from a developed full stall Dive forward angle on exit	A Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Collapse	No collapse	Α	No collapse	Α
Cascade occurs (other than collapses)	No	Α	No	Α

Rocking back	Less than 45°	Α	Less than 45°	Α
Line tension	Most lines tight	Α	Most lines tight	Α
14. Asymmetric collapse Small asymmetric collapse	В			
Change of course until re-inflation / Maximum	Less than 90° / Dive or roll angle 15° to 45°	Α	Less than 90° / Dive or roll angle 0° to 15°	Α
dive forward or roll angle 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				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 15° to 45°	В
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
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0

Folding lines used	Not available	0	Not available	0
15. Directional control with a maintained asymmetric collapse	Α			
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 symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency Spin occurs	A No	Α	No	Α
18. Recovery from a developed spin Spin rotation angle after release	A Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Spiri rotation angle after release	Clope spiring in loss than 50	,,	Ctope opining in loss than 50	,,
Cascade occurs	No	Α	No	Α
19. B-line stall	0			
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	Α			
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
21. Big ears in accelerated flight	0			
Entry procedure	not available	0	not available	0
Behaviour during big ears	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Behaviour immediately after releasing the accelerator while maintaining big ears	not available	0	not available	0
22. Alternative means of directional control	A			
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