AIR TURQUOISE SA | PARA-TEST.COM

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

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



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

Manufacturer Sky Paragliders a.s. Certification number PG_1255.2017
Address Okružní 39 Date of flight test 26. 10. 2017

73911 Frýdlant nad

Ostravicí Czech Republic

Glider model Bi 4 2 Classification B
Serial number 2257-11-1209 Representative None
Trimmer yes: closed Place of test Villeneuve

Folding lines used no

Test pilot Thurnheer Claude Zoller Alain

Harness Advance - Bi pro 2 Advance - Bi pro 2

Harness to risers distance (cm) 44 44

Distance between risers (cm) 55 55

Total weight in flight (kg) 120 220

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	A			
Special landing technique required	No	Α	No	Α
3. Speed in straight flight	В			
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	25 km/h to 30 km/h	В
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	not available	0	not available	0
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	Increasing / greater than 65 cm	Α	Increasing / greater than 65 cm	Α
5. Pitch stability exiting accelerated flight	0			
Dive forward angle on exit	not available	0	not available	0
Collapse occurs	not available	0	not available	0
6. Pitch stability operating controls during accelerated flight	0			
Collapse occurs	not available	0	not available	0
7. Roll stability and damping	A			
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	A			
Initial response of glider (first 180°)	Immediate reduction of rate of turn	Α	Immediate reduction of rate of turn	Α
	tarri			

Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
10. Symmetric front collapse	A			
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		No	
At least 50% chord				
	Packing back loss than 45°	Α	Booking book loss than 45°	Α
Entry	Rocking back less than 45°		Rocking back less than 45°	
Recovery	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	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No		No	
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		Not available	
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			
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall	A			
Dive forward angle on exit	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	В			
Small asymmetric collapse				
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				
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		No	
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		Not available	
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		Not available	
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 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	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	Α			
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	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	not available	0	not available	0
maintaining big ears				

22. Alternative means of directional control	Α		
180° turn achievable in 20 s	Yes	A Yes	Α
Stall or spin occurs	No	A 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

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

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



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Manufacturer Sky Paragliders a.s. Certification number PG_1255.2017
Address Okružní 39 Date of flight test 26. 10. 2017

73911 Frýdlant nad

Ostravicí Czech Republic

Glider model Bi 4 2 Classification B
Serial number 2257-11-1209 Representative None
Trimmer yes: opened Place of test Villeneuve

Folding lines used no

Test pilot Thurnheer Claude Zoller Alain

Harness Advance - Bi pro 2 Advance - Bi pro 2

Harness to risers distance (cm)4444Distance between risers (cm)5555Total weight in flight (kg)120220

Total weight in hight (kg)	120		220	
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 required	No	Α	No	Α
3. Speed in straight flight	В			
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	25 km/h to 30 km/h	В
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	not available	0	not available	0
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	Increasing / greater than 65 cm	Α	Increasing / greater than 65 cm	Α
5. Pitch stability exiting accelerated flight	0			
Dive forward angle on exit	not available	0	not available	0
Collapse occurs	not available	0	not available	0
6. Pitch stability operating controls during accelerated flight	0			
Collapse occurs	not available	0	not available	0
7. Roll stability and damping	A			
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	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	A			
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		No	
A410004 500/ ohoud				
At least 50% chord	Dealting healt less than 45°	٨	Dealing healt less than 45°	^
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	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	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No		No	
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		Not available	Ū
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	, ,	110	7.
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall	В	,,		,,
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 30° to 60°	В
Collapse	No collapse	Α	No collapse	A
Cascade occurs (other than collapses)	No Collapse	A	No	A
Rocking back	Less than 45°	Α	Less than 45°	A
Line tension	Most lines tight	A	Most lines tight	A
14. Asymmetric collapse	B		Wost inics ught	A
	_			
Small asymmetric collapse				
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	
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		No	
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		Not available	
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		Not available	
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 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	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	Α	No	Α
20. Big ears	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
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	not available	0	not available	0
maintaining big ears				

22. Alternative means of directional control	Α		
180° turn achievable in 20 s	Yes	A Yes	Α
Stall or spin occurs	No	A 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

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



Paraglider inspection certificate

Inspection certificate number:

PG_1255.2017

Manufacturer data

Manufacturer name:

Sky Paragliders

Representative

Nemec Martin

Street:

Okruzni 39

Post code / place:

73911 Frydlant N.C.

Country:

Czech Republic

Sample data

Name:

Bi

2257-11-1209

Size:

42

Min weight in flight [kg]:

120

Max weight in flight [kg]:

Weight [kg]:

7.9

Number of seat:

Two-seater

Date of reception:

n/a

Sample load serial number: Sample flight serial number : n/a

Date of reception:

20.10.2017

Test report summary

Result

Place

Test done on inspection PG 655.2013

Date of test 09.02.2013

71.8.3 | Shock loading test: 71.8.3 | Sustained loading test:

Test done on inspection PG_655.2013

Villeneuve

09.02.2013 26.10.2017

71.4.3 | Measurement: 71.6.3 | Line bending test:

71.8.2 | Flight test:

POSITIVE POSITIVE

Villeneuve Villeneuve

25.02.2013 30.01.2018

Issue data

Place of declaration:

Villeneuve

Date of issue:

30.01.2018

Managing Director:

Signature:

Alain Zoller

This signature approve the validity of the test reports 71.8.2, 71.8.3, 71.4.3 and 71.6.3 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the following standards: EN 926-2:2013 / EN 926-1:2015 / LTF: NFL II 91/09 / 2-60-14 / 2-251-16

This inspection certificate confirms that the above sample identified by its serial number and only this is in conforms with the standards.

The inspection certificate contain the following test and is complete with the test report number: 71.8.2, 71.8.3, 71.4.3, 71.6.3 (If the 71.8.3 tests are not done, it has been done for another size of a sample within the definition of same model)

The declaration must not be reproduced in part without the written permission of Air Turquoise SA.

DC | Rev 16 | 05.01.2018 ISO 71.8.1

AIR TURQUOISE SA | PARA-TEST.COM

Route du Pré-au-Comte 8 • CH-1844 Villeneuve • •41 (0)2) 965 65 65

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



PG_1255.2017

30.01.2018



Class:

In accordance with standards EN 926-2:2013, EN 926-1:2015 & LTF 91/09:

Date of issue (DMY):

Sky Paragliders a.s. Manufacturer:

Bi 4 2 Model:

2257-11-1209 Serial number:

Configuration during flight tests

Paraglider		Accessories	
Maximum weight in flight (kg)	220	Range of speed system (cm)	0
Minimum weight in flight (kg)	120	Speed range using brakes (km/h)	13
Glider's weight (kg)	7.9	Range of trimmers (cm)	8.5
Number of risers	4	Total speed range with accessories (km/h)	20
Projected area (m2)	36.79		
Harness used for testing (max weight)		Inspections (whichever happens first)	
Harness type	ABS	every 24 months or every 100 flying hours	
Harness brand	Advance	Warning! Before use refer to user's manual	
Harness model	Bi pro 2	Person or company having presented the glider for testing: None	
Harness to risers distance (cm)	44		
Distance between risers (cm)	55		

20 21 22 23 24