FTR - Flight Test Report Dieser Prütbericht darf ohne schriftliche Zustimmung der EAPR nicht, auch nic

Manufacturer	SWING	Type testing No.	EAPR-GS-0775/17	
	Swing Flugsportgeräte GmbH An der Leiten 4 D-82290 Landsberied	serial number	32-70-99178	
Model	Arcus RS XS	1 4:	Achensee	
Comment		Location	Achensee	



Rev. 2.3 - 26.11.2014 EAPR GmbH - Marktstr. 11 D-87730 Bad Grönenbach - Germany

Date of testing	13.10.2017	Minimum take off v 55 kg	veight	Maximum take off weight 77 kg		
Testpilot		Sepp Bauer		Mike Küng		
Harness		EAPR- Lightequipment		EAPR-Testequipment		
Pilot's take off weigl	ht	65 kg		75 kg		





Test-criteria		Minimum take off weight Evaluati		Maximum take off weight	Evaluation
1. Inflation / take-off - 4.4.1					
Rising behavior		no pilot correction required	Α	no pilot correction required	Α
Special take off technique required		No	Α	No	Α
2. Landing - 4.4.2		1.75	, ,,	1.15	
Special landing technique required		No	A	No	А
3. Speeds in straight flight - 4.4.3		140		110	
Trim speed more than 30km/h		Yes	l A	Yes	l A
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 - 4.4.4					
Max. weight in flight up to 80kg		Increasing > 55cm A Increasing > 55cm		Increasing > 55cm	Α
Max. weight in flight 80 to 100kg			-		-
Max. weight in flight greater than 100kg			-		-
5. Pitch stability exiting accelerated flight	- 4.4.5				
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 - 4.4.6			
Collapse occurs		No	No A No		Α
7. Roll stability and damping - 4.4.7					
Oscillations		Reducing A Reducing		Reducing	Α
8. Stability in gentle spirals - 4.4.8					
Tendency to return to straight flight		Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour exiting a fully developed spir	al dive - 4.4	9	<u>'</u>	,	
Initial response of glider (first 180°)		No immediate reaction	В	No immediate reaction	В
Tendency to return to straight flight		Spontaneous exit	A	Spontaneous exit	A
Turn angle to recover normal flight		Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
10. Symmetric front collapse - 4.4.10					
Folding lines used				No	
Entry	30%	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	₹	Spontaneous in less than 3 sec	Α	Spontaneous in less than 3 sec	Α
Dive forward angle on exit	Luim speed	0° - 30° Keeping course	Α	0° - 30° Entering a turn of less than 90°	Α
Cascade occurs		No	A	No	A
Entry	× 20%	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	^ paeds	Spontaneous in less than 3 sec	Α	Spontaneous in less than 3 sec	Α
Dive forward angle on exit		30° - 60° Keeping course	В	30° - 60° Entering a turn of less than 90°	В
Cascade occurs	Ę,	No	Α	No	Α
Entry	50%	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	tocelerated > 5	Spontaneous in 3 to 5 sec	В	Spontaneous in less than 3 sec	Α
Dive forward angle on exit	oceler	30° - 60° Keeping course	В	30° - 60° Entering a turn of less than 90°	В
Cascade occurs	10	No	Α	No	Α
11. Exiting deep stall (parachutal stall) - 4.	4.11				
Deep stall achieved		Yes		Yes	
Recovery		Spontaneous in less than 3 sec	Α	Spontaneous in less than 3 sec	Α
Dive forward angle on exit			Α	0° - 30°	Α
Dive forward angle on exit Change of course		0° - 30° Changing course less than 45°	Ä	Changing course less than 45°	A

12. High angle of attack recovery - 4.4.12									
Recovery		Spontaneous in less than 3 sec A		Α	Spontaneous in less than 3 sec			А	
Cascade occurs		No		Α	No			Α	
13. Recovery from a developed full stall - 4.4.13				•					
ive forward angle on exit		0° - 30°			Α	30° - 60°			В
Collapse Cascade occurs (other than collapse)		No collapse No			A	No collapse No			A A
Rocking backward		Less than 45°			Α	Less than 45°			A
Line tension		Most lines tight		Α	Most lines tight			А	
14. Asymmetric collapse (trim speed) - 4.4.14		No				No			
Folding lines used		< 90°		00 150		< 90°	Dive or roll angle	150 450	^
Change of course until re-inflation	bse	< 90-	Dive or roll angle	0° - 15°	Α	< 90°	Dive or roll angle	15° - 45°	Α
Re-inflation behavior	colla	Spontaneous re	e-inflation		Α	Spontaneous re-inflation			Α
Total change of course	trim speed, max 50% collapse	Less than 360°	Less than 360°		Α	Less than 360°			A
Collapse on the opposite side occurs Twist occurs	max rt	No No		A	No No			A	
Cascade occurs		No			A	No	_		A
Change of course until re-inflation	φ	< 90°	Dive or roll angle	15° - 45°	Α	< 90°	Dive or roll angle	15° - 45°	Α
Re-inflation behavior	trim speed, max 75% collapse	Coortonoous ra	inflation	1	Α	Spontaneous re	inflation	I	Α
	trim speed x 75% colla	Spontaneous re-inflation				-IIIIatioii			
Total change of course Collapse on the opposite side occurs	trim × 75	Less than 360°		A	Less than 360° No			A	
Twist occurs	ma	No			Α	No			Α
Cascade occurs		No			Α	No			Α
Change of course until re-inflation	Φ	< 90°	Dive or roll angle	15° - 45°	Α	< 90°	Dive or roll angle	15° - 45°	Α
Re-inflation behavior	accelerated, max 50% collapse	Spontonoous	inflation	1	Α	Spontaneous re	inflation	l .	A
Re-inflation behavior Total change of course	accelerated, x 50% colla	Spontaneous re Less than 360°	z-iriliauUII			Less than 360°	-iiiidii0II		
Collapse on the opposite side occurs	x 50°	No			A	No			A
Twist occurs	na na	No			Α	No			Α
Cascade occurs		No	T		Α	No	1	l	Α
Change of course until re-inflation	se	90° - 180°	Dive or roll angle	15° - 45°	В	90° - 180°	Dive or roll angle	15° - 45°	В
Re-inflation behavior	accelerated, max 75% collapse	Spontaneous re	e-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	accelerated x 75% colla	Less than 360°			Α	Less than 360°			Α
Collapse on the opposite side occurs	acc lax 7	No			A	No			A
Twist occurs Cascade occurs	⊢	No No			A	No No			A
15. Directional control with a maintained asym	metric co								
Able to keep course straight		Yes		Α	Yes			Α	
180° turn away from the collapsed side possible in	n 10 sec	Yes		Α	Yes			Α	
Amount of control range between turn and stall or	enin	More than 50% of the symmetric control travel			Α	More than 50%	Α		
-	эрш	Widle triair 50 /6	of the symmetric	Control traver	_ ^	Wiore triair 30 %	of the symmetric t	Sonition traver	Α
16. Trim speed spin tendency - 4.4.16 Spin occurs		No			A	No			Α
17. Low speed spin tendency - 4.4.17		140		A	140			A	
Spin occurs		No		Α	No			А	
18. Recovery from a developed spin - 4.4.18		•							
Spin rotation angle after release		Stops spinning in less than 90°		Α	Stops spinning in less than 90°		Α		
Cascade occurs		No		Α	No			А	
19. B-line-stall - 4.4.19									
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 cos		Α	Spontaneous in less than 3 sec			Α	
Dive forward angle on exit		Spontaneous in less than 3 sec		A	0° - 30°		A		
Cascade occurs		No		A	No No			A	
20. Big ears - 4.4.20									
Entry procedure		Standard technique		Α	Standard technique			Α	
Behaviour during big ears		Stable flight		Α	Stable flight			Α	
		Spontaneous in less than 3 sec		Α	Spontaneous in less than 3 sec			Α	
Recovery		0° - 30°			0° bis 30°			A	
Recovery Dive forward angle on exit					Α				
<u> </u>					А	0 513 00			
Dive forward angle on exit			ique		A	Standard techni	que		А
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21		0° - 30°	ique				que		A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears		0° - 30° Standard techni Stable flight			А	Standard techni			
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery		0° - 30° Standard techni Stable flight Spontaneous in	ique n less than 3 sec		A A A	Standard techni Stable flight Spontaneous in	que less than 3 sec		A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar	ator while	Standard techni Stable flight Spontaneous in			A A A	Standard techni Stable flight Spontaneous in 0° bis 30°			A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears		0° - 30° Standard techni Stable flight Spontaneous in			A A A	Standard techni Stable flight Spontaneous in			A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control -		Standard techni Stable flight Spontaneous in 0° - 30° Stable flight			A A A A	Standard techni Stable flight Spontaneous in 0° bis 30° Stable flight			A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears		Standard techni Stable flight Spontaneous in			A A A	Standard techni Stable flight Spontaneous in 0° bis 30°			A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 180° turn achievable in 20 sec Stall or spin occurs	4.4.22	Standard techni Stable flight Spontaneous in 0° - 30° Stable flight Yes	l less than 3 sec		A A A A	Standard techni Stable flight Spontaneous in 0° bis 30° Stable flight			A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 180° turn achievable in 20 sec Stall or spin occurs 23. Any other flight procedure and/or configure	4.4.22	Standard techni Stable flight Spontaneous in 0° - 30° Stable flight Yes	l less than 3 sec	23	A A A A A	Standard techni Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 180° turn achievable in 20 sec Stall or spin occurs	4.4.22	Standard techni Stable flight Spontaneous in 0° - 30° Stable flight Yes	l less than 3 sec	223	A A A A	Standard techni Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A
Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 180° turn achievable in 20 sec Stall or spin occurs 23. Any other flight procedure and/or configure Procedure works as described	4.4.22	Standard techni Stable flight Spontaneous in 0° - 30° Stable flight Yes	l less than 3 sec	223	A A A A A A A A	Standard techni Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A A NA