## Flight test report

Manufacturer Gin Gliders

Trimmer

Address 586-5 Ilsan-Ri, Mohyun-Myun

not available

Yongin City Kyunggi-Do 449-855

Representive None
Type of glider Bolero 3 M

Certification number
Date of flight test
Place of test

PG 013.2006 11.10.2006 Villeneuve



## Classification B

Test PilotClaude ThurnheerAlain ZollerHarnessGin Genie 3Sol Slider LTotal weight in flight80 kg105 kg

		Min weight	Max weight	
1. Inflation/Ta		wiii weigiit	max weight	
	Rising behaviour	Smooth, easy and constant rising A	Smooth, easy and constant rising	Α
0.1	Special take off technique required	No A	No	Α
2. Landing	Special landing technique required	No A	No	Α
3. Speed in st		,,	110	, ,
·	Trim speed more than 30 km/h	Yes	Yes	Α
	Speed range using the controls larger than 10 km/h	Yes		Α
4. Control mo	Minimum speed	Less than 25 km/h A	Less than 25 km/h	Α
4. Control ino	Max. weight in flight up to 80 kg			
	Symmetric control pressure/travel	not available	not available	0
	Max. weight in flight 80 kg to 100 kg			
	Symmetric control pressure/travel Max. weight in flight greater than 100 kg	Increasing, Greater than 60 cm A	not available	0
	Symmetric control pressure/travel	not available (	Increasing, Greater than 65 cm	Α
5. Pitch stabil	ity exiting accelerated flight		, and the second	
	Dive forward angle on exit	Dive forward less than 30° A		A
6. Pitch stabil	Collapse occurs ity operating controls during accelerated flight	No A	No	Α
or r rion orabin	Collapse occurs	No A	No	Α
7. Roll stabilit	y and damping			
8. Stability in	Oscillations	Reducing A	Reducing	Α
o. Glability in	Tendency to return to straight flight	Spontaneous exit A	Spontaneous exit	Α
9. Behaviour i	n a steeply banked turn			
	Sink rate after two turns	More than 14 m/s	More than 14 m/s	В
10. Symmetric	c front collapse	Rocking back less than 45° A	Booking book loss than 45°	Α
	Entry Recovery	Rocking back less than 45° A Spontaneous in less than 3 s A	· · · · · · · · · · · · · · · · · · ·	A
	Dive forward angle on exit	Dive foward 0°to 30°, Keeping course A	· ·	Α
	Cascade occurs	No A	No	Α
	With accelerator	Dealing healtheas they 450	Dealing heads been then 450	
	Entry Recovery	Rocking back less than 45° A Spontaneous in less than 3 s A	3	A A
	Dive forward angle on exit	Dive foward 0°to 30°, Keeping course A		Α
	Cascade occurs	No A	No	Α
11. Exiting de	ep stall (parachutal stall)	V	Van	^
	Deep stall achieved Recovery	Yes A Spontaneous in less than 3 s A		A A
	Dive forward angle on exit	Dive forward 0°to 30° A	1 ·	Α
	Change of course	Changing course less than 45° A	0 0	Α
40 Hink annie	Cascade occurs	No A	No	Α
12. High angle	e of attack recovery Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s	Α
	Cascade occurs	No A	· ·	Α
13. Recovery	from a developed full stall			
	Dive forward angle on exit	Dive forward 0°to 30° A No collapse A		A
	Collapse Cascade occurs (other than collapse)	No collapse A No A		A A
	Rocking back	Less than 45° A		Α
	Line tension	Most line tight A	Most line tight	Α
14. Asymmetr				
	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° A	Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	Spontaneous re-inflation A		Α
	Total change of course	Less than 360° A		Α
	Collapse on the opposite side occurs	No A	NI.	A
	Cascade occurs	No A	No	A A
	With 75% collapse-Maximum dive forward or roll angle	· ·		
	Change of course until re-inflation	Less than 90°, Dive or roll angle 15° to 45° A		Α
	Re-inflation behaviour	Spontaneous re-inflation A Less than 360° A	Spontaneous re-inflation	A
	Total change of course Collapse on the opposite side occurs	Less than 360° A No A		A A
	Twist occurs	No A		A
	Cascade occurs	No A		Α
	With 50% collapse and accelerator-Maximum dive forward or		Less than 00% Diverse will avail 450 to 450	^
	Change of course until re-inflation Re-inflation behaviour	Less than 90°, Dive or roll angle 0° to 15°  Spontaneous re-inflation  A		A A
	Total change of course	Less than 360° A	· ·	A
	Collapse on the opposite side occurs	No A		Α

Twist occurs Cascade occurs With 75% collapse and accelerator-Maximum dive forward or roll angle Change of course until re-inflation Change of course plot or the opposite side occurs No A						
With 75% collapse and accelerator-Maximum dive forward or roll angle 15" to 45" A Re-inflation behaviour Spontaneous re-inflation A Less than 90", Dive or roll angle 15" to 45" A Re-inflation behaviour Spontaneous re-inflation A Less than 360" A No A N		Twist occurs				
Change of course until re-inflation Re-inflation behaviour Quality of the course Re-inflation behaviour Collage on the opposite side occurs No No No A No				Α	No	Α
Re-inflation behaviour Total change of course Less than 360" A Spontaneous re-inflation A Collapse on the opposite side occurs No No A N						
Total change of course Collapse on the popolise side occurs No Collapse on the popolise side occurs No No A Twist occurs No No A Total Change of course No No A Total Change of course No No A Total Change of course All to Keep Course All More than 50 % of the symmetric control travel A No		o de la companya de	•			
Collapse on the opposite side occurs No No A No Cascade occurs Able to keep course Abl		Re-inflation behaviour	Spontaneous re-inflation			
Twist occurs No No A No A No A No Cascade occurs No No A Cascade occurs No No A No No No A No No No A No		Total change of course	Less than 360°		Less than 360°	
Cascade occurs  Able to keep course 180 'Tim away from the collapsed side possible in 10 s Amount of control with a maintained asymmetric collapse 180 'Tim away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin  16. Trim speed spin tendency Spin occurs  No  17. Low speed spin tendency Spin occurs  No  18. Recovery from a developed spin Change of course less than 90° Spin rotation angle after release Change of course less than 90° Spin occurs  No  19. B-line stall Change of course before release Renains stable with straight span Recovery Dive forward angle on exit Dive forward or 'to 30° No  20. Big ears  Entry procedure Behaviour during big ears Stable flight Entry procedure Behaviour during big ears Stable flight Entry procedure Behaviour furing big ears Stable flight Turn angle to recover normal flight Procedure works as described Proc		Collapse on the opposite side occurs	No	Α	No	Α
15. Directional control with a maintained asymmetric collapse  180° turn away from the collapsed side possible in 10 s A Pes Anount of control trange between turn and stall or spin Anount of control trange between turn and stall or spin Anount of control trange between turn and stall or spin Spin accurs S		Twist occurs	No	Α	No	Α
Able to keep course 180' turn way from the collapsed side possible in 10 s Amount of control range between turn and stall or spin  18. Recours Spin occurs Spin occurs No		Cascade occurs	No	Α	No	Α
180° turn away from the collapsed side possible in 10 s	15. Directiona	al control with a maintained asymmetric collapse				
Amount of control range between turn and stall or spin  15. friin speed spin tendency Spin occurs  No		Able to keep course	Yes	Α	Yes	Α
15. Trim speed spin tendency Spin occurs No		180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
Spin occurs  No 17. Low speed spin tendency Spin occurs  No 18. Recovery from a developed spin Cascade occurs No 19. B-line stall Change of course before release Remains stable with straight span Recovery Spin fortation and gle are release Remains stable with straight span Recovery Spin fortation and gle are release Remains stable with straight span Recovery Spontaneous in less than 3 s Recovery No 19. Befaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s Recovery No 10. Big ears  Entry procedure Behaviour during big ears Recovery Spontaneous in less than 3 s Recovery Spontaneous in less th		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
17. Low speed spin tendency Spin occurs No A Spontaneous in less than 90° A Stops spinning in less than 90° A No A No A Stops spinning in less than 90° A No A No A No A Stops spinning in less than 90° A No A No A Change of course less than 45° A Remains stable with straight span A	16. Trim spee	ed spin tendency				
Spin occurs   No		Spin occurs	No	Α	No	Α
Spin occurs   No	17. Low spee	d spin tendency				
Spin totation angle after release Cascade occurs No No A Cascade occurs No No A		Spin occurs	No	Α	No	Α
Cascade occurs  Change of course before release Change of course less than 45° A Behaviour before release Remains stable with straight span A Recovery Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward	18. Recovery	from a developed spin				
19. B-line stall  Change of course before release     Remains stable with straight span     Recovery     Spontaneous in less than 3 s     Dive forward angle on exit     Cascade occurs  No  20. Big ears  Entry procedure     Behaviour during big ears     Recovery     Spontaneous in less than 3 s     Recovery     Spontaneous in less than 3 s     Recovery     Stable flight     Recovery     Spontaneous in less than 3 s     Recovery     Stable flight     Recovery     Spontaneous in less than 3 s     Recovery     Recovery     Spontaneous in less than 3 s     Recovery     Recovery     Spontaneous in less than 3 s     Recovery     Re		Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Change of course before release Remains stable with straight span 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 No A No A No A Stable flight A Scovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A No A		Cascade occurs	No	Α	No	Α
Behaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s A Dive forward one out in less than 3 s A Dive forward one out in less than 3 s A Dive forward one out in less than 3 s A Dive forward one out in less than 3 s A Dive forward one out in less than 3 s A Dive forward one out of the spontaneous in less than 3 s A Spontaneous in less than 3 s A Spont	19. B-line sta	II				
Recovery Dive forward angle on exit Dive forward 0° to 30° A No A N		Change of course before release	Change of course less than 45°	Α	Change of course less than 45°	Α
Recovery Dive forward angle on exit Dive forward 0° to 30° A No A N		Behaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
Cascade occurs    No   A   No   A		Recovery		Α		Α
Cascade occurs    No   A   No   A		Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Entry procedure Standard technique A Behaviour during big ears Stable flight A Dedicated controls A Stable flight A Dive forward angle on exit Dive forward 0° to 30° A Dive forward angle on exit Dive forward 0° to 30° A D		Cascade occurs	No	Α	No	Α
Behaviour during big ears Recovery Spontaneous in less than 3 s A Dive forward 0° to 30° A Stable flight A Spontaneous in less than 3 s A Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears A Dive forward 0° to 30° A Stable flight	20. Big ears					
Recovery Dive forward angle on exit Dive forward 0° to 30° A Dive forwa	_	Entry procedure	Standard technique	Α	Dedicated controls	Α
Dive forward angle on exit  21. Big ears in accelerated flight  Entry procedure Standard technique A Behaviour during big ears Stable flight A Stable flight A Stable flight A Stable flight A Spontaneous in less than 3 s A Dive forward 0° to 30° A Dedicated controls A Stable flight A Stable flight A Stable flight A Spontaneous in less than 3 s A Dive forward o° to 30° A Dive forward 0° to 30° A		Behaviour during big ears	Stable flight	Α	Stable flight	Α
21. Big ears in accelerated flight Entry procedure Standard technique A Behaviour during big ears Stable flight A Recovery 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 maintaining big ears Stable flight A Stable flight A Dive forward 0° to 30° A Dive forward 0° to 30		Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Entry procedure Behaviour during big ears Stable flight A Spontaneous in less than 3 s A Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears Stable flight A Stable fl		Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Behaviour during big ears Recovery Spontaneous in less than 3 s 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 maintaining big ears Stable flight A Stable flight A Dive forward 0° to 30° A Div	21. Big ears i	n accelerated flight				
Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° A Dive f	_	Entry procedure	Standard technique	Α	Dedicated controls	Α
Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° A Dive f		Behaviour during big ears	Stable flight	Α	Stable flight	Α
Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears Stable flight A  22. Behaviour exiting a steep spiral Tendency to return to straight flight Sink rate when evaluating spiral stability [m/s] 17 m/s  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available O Cascade occurs O  Comments of test pilot			Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Behaviour immediately after releasing the accelerator while maintaining big ears  Stable flight  A Spontaneous exit  A Spontaneous exit  A Less than 720°, spontaneous recovery  A Less than 720°, spontaneous recovery  A Sink rate when evaluating spiral stability [m/s]  17 m/s  23. Alternative means of directional control  180° turn achievable in 20 s  Stall or spin occurs  No  A Yes  A Yes  A No  A No  A No  A No  A No  A No  Cascade occurs  A No  Cascade occurs  not available  O not available			Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
maintaining big ears  Stable flight  A  22. Behaviour exiting a steep spiral  Tendency to return to straight flight A Spontaneous exit A Furn angle to recover normal flight Bink rate when evaluating spiral stability [m/s]  17 m/s  23. Alternative means of directional control  180° turn achievable in 20 s Stall or spin occurs No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Procedure works as described A Stable flight A Stable flight A Spontaneous exit A Less than 720°, spontaneous recovery A Less than 720°, spontaneous recovery A Ves A No A No A No A No A No A On A No A On A No A Stable flight A Spontaneous exit A		Behaviour immediately after releasing the accelerator while				
22. Behaviour exiting a steep spiral Tendency to return to straight flight Spontaneous exit A Less than 720°, spontaneous recovery A Le			Stable flight	Α	Stable flight	Α
Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control  180° turn achievable in 20 s Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots Cascade occurs not available Not available Onot available	22. Behaviou					
Turn angle to recover normal flight Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 17 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 No A A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available 0 not availab			Spontaneous exit	Α	Spontaneous exit	Α
Sink rate when evaluating spiral stability [m/s] 17 m/s 22 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  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not ava						
23. Alternative means of directional control  180° turn achievable in 20 s Stall or spin occurs No A Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available O Procedure suitable for novice pilots not available Cascade occurs not available O Comments of test pilot			17 m/s		22 m/s	
Stall or spin occurs No A  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available 0 not available 0 not available 0 on tavailable 0 not available 0 on tavailable 0 not available 0 no	23. Alternativ					
Stall or spin occurs No A  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available 0 not available 0 not available 0 on tavailable 0 not available 0 on tavailable 0 not available 0 no		180° turn achievable in 20 s	Yes	Α	Yes	Α
24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available 0 not available 0 not available 0 on to available 0 not available 0 on to available 0 not available 0 on to available 0 not ava		Stall or spin occurs	No		No	
Procedure works as described not available 0 n	24. Any other					
Procedure suitable for novice pilots not available 0 not available 0 not available 0 not available 0 Cascade occurs not available 0 Comments of test pilot				0	not available	0
Cascade occurs not available 0 Comments of test pilot 0				0		
·			not available	0		0
·	Comments of	f test pilot				
		•	no		no	



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