GIN BONANZA 3 S		
Type designation	GIN Bonanza 3 S	25 1
Type test reference no	DHV GS-01-2803-23	1
Holder of certification	GIN Gliders Inc.	
Manufacturer	GIN Gliders Inc.	
Classification	C	
Winch towing	Yes	
Number of seats min / max	1 / 1	
Accelerator	Yes	
Trimmers	No	
	BEHAVIOUR AT MIN WEIGHT IN FLIGHT (85KG)	BEHAVIOUR AT MAX WEIG IN FLIGHT (100KG)
Test pilots		

Type test reference no		
Holder of certification Manufacturer	GIN Gliders Inc. GIN Gliders Inc.	
Classification	С	
Winch towing Number of seats min / max		
Accelerator		
Trimmers	No	y
	BEHAVIOUR AT MIN WEIGHT IN	BEHAVIOUR AT MAX WEIGHT
	FLIGHT (85KG)	IN FLIGHT (100KG)
Test pilots		
	Final Section 1	
	The state of the s	
	Harald Buntz	Sebastian Mackrodt
Inflation/take-off	No release	No release
	Easy rising, some pilot correction is required	*
		required
Special take off technique required	No	No
<u>Landing</u>	A	A
Special landing technique required	No	No
Speeds in straight flight	В	A
Trim speed more than 30 km/h	<u> </u>	Yes
Speed range using the controls larger than 10	Yes	Yes
km/h Minimum speed	25 km/h to 30 km/h	Less than 25 km/h
Control movement	<u> </u>	i A
Symmetric control pressure Symmetric control travel	-	Increasing Greater than 60 cm
		! _
Pitch stability exiting accelerated flight		Disconsisted and the second
Dive forward angle on exit Collapse occurs		Dive forward less than 30° No
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs	No	No
Roll stability and damping	A	
	A Reducing	Reducing
Roll stability and damping Oscillations Stability in gentle spirals	A Reducing	Reducing
Roll stability and damping Oscillations	A Reducing	Reducing
Roll stability and damping Oscillations Stability in gentle spirals	Reducing A Spontaneous exit	Reducing
Roll stability and damping Oscillations Stability in gentle spirals Tendency to return to straight flight Behaviour exiting a fully developed spiral dive Initial response of glider (first 180°)	Reducing A Spontaneous exit B en: keine unmittelbare Reaktion	Reducing A Spontaneous exit B en: keine unmittelbare Reaktion
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Change of course	Reeping course	Entering a turn of 90° to 180°
Cascade occurs	5 No	No
Folding lines used	l yes	yes
<u>Exiting deep stall (parachutal stall)</u>	В	c
Deep stall achieved	Yes	Yes
Recovery	Spontaneous in less than 3 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit	t Dive forward 30° to 60°	Dive forward 0° to 30°
Change of course	Changing course less than 45°	Changing course less than 45°
Cascade occurs	s No	No
<u>High angle of attack recovery</u>	A	A
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs	5 No	No
Recovery from a developed full stall	В	В
Dive forward angle on exit	t Dive forward 30° to 60°	Dive forward 30° to 60°
Collapse	No collapse	No collapse
Cascade occurs (other than collapses)	No No	No
Rocking back	Less than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
Small asymmetric collapse	c	c

Change of course until re-inflation Less than 90°

Maximum dive forward or roll angle Dive or roll angle 0° to 15°

Total change of course Less than 360°

Twist occurs No

Cascade occurs No

Spin occurs No

Folding lines used yes

Collapse on the opposite side occurs No (or only a small number of collapsed cells No (or only a small number of with a spontaneous re inflation) collapsed cells with a spontaneous re inflation) Twist occurs No No Cascade occurs No No Folding lines used yes yes Large asymmetric collapse Change of course until re-inflation 90° to 180° 90° to 180° Maximum dive forward or roll angle Dive or roll angle 15° to 45° Dive or roll angle 15° to 45° **Re-inflation behaviour** Inflates in less than 3 s from start of pilot Spontaneous re-inflation action Total change of course Less than 360° Less than 360°

Re-inflation behaviour Inflates in less than 3 s from start of pilot

action

Less than 90°

pilot action

Less than 360°

Dive or roll angle 15° to 45°

Inflates in less than 3 s from start of

collapsed cells with a spontaneous re

inflation)

No

No

yes

No

Standard technique

Collapse on the opposite side occurs No (or only a small number of collapsed cells No (or only a small number of with a spontaneous re inflation) collapsed cells with a spontaneous re inflation) Twist occurs No No Cascade occurs No No Folding lines used yes yes Small asymmetric collapse accelerated C C **Change of course until re-inflation** 90° to 180° Less than 90° Maximum dive forward or roll angle Dive or roll angle 15° to 45° Dive or roll angle 15° to 45° **Re-inflation behaviour** Inflates in less than 3 s from start of pilot Spontaneous re-inflation action Less than 360° Total change of course Less than 360° Collapse on the opposite side occurs No (or only a small number of collapsed cells No (or only a small number of

Cascade occurs No No Folding lines used yes yes C C Large asymmetric collapse accelerated Change of course until re-inflation 90° to 180° 90° to 180° Maximum dive forward or roll angle Dive or roll angle 15° to 45° Dive or roll angle 15° to 45° **Re-inflation behaviour** Inflates in less than 3 s from start of pilot Inflates in less than 3 s from start of pilot action **Total change of course** Less than 360° Less than 360° Collapse on the opposite side occurs No (or only a small number of collapsed cells No (or only a small number of with a spontaneous re inflation) collapsed cells with a spontaneous re inflation) Twist occurs No No

with a spontaneous re inflation)

Directional control with a maintained asymmetric collapse **Able to keep course** Yes Yes **180° turn away from the collapsed side possible in** Yes Yes Amount of control range between turn and stall or More than 50 % of the symmetric control More than 50 % of the symmetric **spin** travel control travel Trim speed spin tendency **Spin occurs** No No Low speed spin tendency

Recovery from a developed spin Spin rotation angle after release Stops spinning in less than 90° Stops spinning in 90° to 180° Cascade occurs No No

<u>Big ears</u> Entry procedure Standard technique

Not carried out because the manoeuvre is excluded in the user's manual

B-line stall

Behaviour during big ears Stable flight Stable flight **Recovery** Recovery through pilot action in less than a Recovery through pilot action in less further 3 s than a further 3 s Dive forward 0° to 30° **Dive forward angle on exit** Dive forward 0° to 30° Big ears in accelerated flight Standard technique **Entry procedure** Standard technique Behaviour during big ears Stable flight Stable flight

Recovery Recovery through pilot action in less than a further 3 s Recovery through pilot action in less than a further 3 s **Dive forward angle on exit** Dive forward 0° to 30° Dive forward 0° to 30° Stable flight Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears Alternative means of directional control 180° turn achievable in 20 s Yes Yes Stall or spin occurs No No

Any other flight procedure and/or configuration described in the user's manual No other flight procedure or configuration described in the user's manual