Deutscher Hängegleiterverband e.V. im DAeC
Akkreditierte Musterprüfstelle für Hängegleiter und Gleitsegel nach DIN EN ISO/IEC 17020:2012-07

GS TESTFLUG LTF 2009 GIN GTO 2 M

Test No	026538-GSTF09-631-Harry
Test date	20.08.2014
Location	Gardasee / Mt Baldo
Type	GIN GTO 2 M
Test type	GS Testflug LTF 2009
Test order	Auftrag GS Musterprüfung GIN GTO2 M X-Alps (GIN Gliders INC.)
Customer	GIN Gliders Inc.
Test standard	LTF NFL II-91/09
Test standard 2	EN 926-2:2005
Expert	Buntz
Result	positive
Billing to:	100%
Technical peculiarities	

Datum / Unterschrift (Harald Buntz)

RESULTS

PG test flight (general)

Take off weight [kg]	90
Weight limit for certification [kg]	90
Number of pilots	1
test pilot	Harald Buntz
Harness type	altirando 2
Harness category	GH
Minimum speed [km/h]	23
Trim speed [km/h]	35
Accelerated speed [km/h]	55
Accelerator used?	Yes
Trimms	-

en : Klassifizierung

en : Klassifizierung	D

EN : ERGEBNISDETAILS NACH LTF 2009

1 Inflation/take-off — A

Rising behaviour	Smooth, easy and constant rising
Special take off technique required	No

2 Landing — A

Special landing technique required	No

3 Speeds in straight flight — A

Trim speed more than 30 km/h	Yes
Speed range using the controls larger than 10 km/h	Yes

Minimum speed Less than 25 km/h

4 Control movement — A

Symmetric control pressure Increasing
Symmetric control travel Greater than 60 cm

5 Pitch stability exiting accelerated flight — A

Dive forward angle on exit Dive forward less than 30°
Collapse occurs No

6 Pitch stability operating controls during accelerated flight — A

Collapse occurs No

7 Roll stability and damping — A

Oscillations Reducing

8 Stability in gentle spirals — A

Tendency to return to straight flight Spontaneous exit

9 Behaviour in a steeply banked turn — B

Sink rate after two turns More than 14 m/s

10.1 Symmetric front collapse — C

Entry Rocking back greater than 45°
Recovery Spontaneous in 3 s to 5 s
Dive forward angle on exit Dive forward 30° to 60°
Change of course Entering a turn of less than 90°
Cascade occurs No

10.2 Symmetric front collapse in accelerated flight — C

Entry Rocking back greater than 45°
Recovery Spontaneous in 3 s to 5 s
Dive forward angle on exit Dive forward 30° to 60°
Change of course Entering a turn of less than 90°
Cascade occurs No

11 Exiting deep stall (parachutal stall) — B

Deep stall achieved Yes
Recovery Spontaneous in less than 3 s
Dive forward angle on exit Dive forward 30° to 60°
Change of course Changing course less than 45°
Cascade occurs No

12 High angle of attack recovery — A

Recovery Spontaneous in less than 3 s
Cascade occurs No

13 Recovery from a developed full stall — B

Dive forward angle on exit Dive forward 30° to 60°
Collapse No collapse
Cascade occurs (other than collapses) No
Rocking back Greater than 45°
Line tension Most lines tight

14.1 Asymmetric collapse 45-50% — A

Change of course until re-inflation Less than 90°
Maximum dive forward or roll angle Dive or roll angle 15° to 45°

Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°
Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.2 Asymmetric collapse 70-75% — C

Change of course until re-inflation	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°
Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°
Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.3 Asymmetric collapse 45-50% in accelerated flight — C

Change of course until re-inflation	Less than 90°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°
Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°
Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.4 Asymmetric collapse 70-75% in accelerated flight — D

Change of course until re-inflation	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 60° to 90°
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action
Total change of course	Less than 360°
Collapse on the opposite side occurs	Yes, causing turn reversal
Twist occurs	No
Cascade occurs	No

15 Directional control with a maintained asymmetric collapse — C

Able to keep course	Yes
180° turn away from the collapsed side possible in 10 s	Yes
Amount of control range between turn and stall or spin	25 % to 50 % of the symmetric control travel

16 Trim speed spin tendency — A

Spin occurs	No

17 Low speed spin tendency — A

Spin occurs	No

18 Recovery from a developed spin — C

Spin rotation angle after release	Stops spinning in 90° to 180°
Cascade occurs	No

19 B-line stall — D

Change of course before release	Changing course more than 45°
Behaviour before release	Unstable
Recovery	Recovery through pilot action in less than a further 3 s
Dive forward angle on exit	Dive forward 0° to 30°
Cascade occurs	No

20 Big ears	B
Entry procedure	Dedicated controls
Behaviour during big ears	Stable flight
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°

21 Big ears in accelerated flight	A
Entry procedure	Standard technique
Behaviour during big ears	Stable flight
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight

22 Behaviour exiting a steep spiral	A
Tendency to return to straight flight	Spontaneous exit
Turn angle to recover normal flight	Less than 720°, spontaneous recovery
Sink rate when evaluating spiral stability [m/s]	14

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

24 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

Sprachmodul default
Sprachmodul default_constants
Sprachmodul default_dhv
Sprachmodul default_tmo
Sprachmodul erg_flusi
Sprachmodul tmo_pruefungen
Sprachmodul tmo_pruefungentestflug
Sprachmodul tmo_pruefungentestfluggs
Sprachmodul tmo_pruefungentestfluggsltf09
Sprachmodul tmo_pruefauftraege
Sprachmodul dhv_adressen
Sprachmodul tmo_muster
Sprachmodul tmo_musterfremd
Sprachmodul tmo_pruefungsarten
Sprachmodul dhv_adressenperson
Sprachmodul dhv_adressenumsetzung
Sprachmodul dhv_adressen_constants

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GS TESTFLUG LTF 2009 GIN GTO 2 M

Test No	026528-GSTF09-623-Sesi
Test date	20.08.2014
Location	Gardasee / Mt Baldo
Type	GIN GTO 2 M
Test type	GS Testflug LTF 2009
Test order	Auftrag GS Musterprüfung GIN GTO2 M X-Alps (GIN Gliders INC.)
Customer	GIN Gliders Inc.
Test standard	LTF NFL II-91/09
Test standard 2	EN 926-2:2005
Expert	Mackrodt
Result	positive
Billing to:	100%
Technical peculiarities	

Datum / Unterschrift (Sebastian Mackrodt)

RESULTS

PG test flight (general)

Take off weight [kg]	105
Weight limit for certification [kg]	105
Number of pilots	1
test pilot	Sebastian Mackrodt
Harness type	Acro T
Harness category	GH
Minimum speed [km/h]	23
Trim speed [km/h]	35
Accelerated speed [km/h]	0
Accelerator used?	Yes
Trimms	-

en : Klassifizierung

en : Klassifizierung	D

EN : ERGEBNISDETAILS NACH LTF 2009

1 Inflation/take-off — A

Rising behaviour	Smooth, easy and constant rising
Special take off technique required	No

2 Landing — A

Special landing technique required	No

3 Speeds in straight flight — A

Trim speed more than 30 km/h	Yes
Speed range using the controls larger than 10 km/h	Yes
Minimum speed	Less than 25 km/h

4 Control movement	C
Symmetric control pressure	Increasing
Symmetric control travel	50 cm to 65 cm

5 Pitch stability exiting accelerated flight	A
Dive forward angle on exit	Dive forward less than 30°
Collapse occurs	No

6 Pitch stability operating controls during accelerated flight	A
Collapse occurs	No

7 Roll stability and damping	A
Oscillations	Reducing

8 Stability in gentle spirals	A
Tendency to return to straight flight	Spontaneous exit

9 Behaviour in a steeply banked turn	B
Sink rate after two turns	More than 14 m/s

10.1 Symmetric front collapse	C
Entry	Rocking back greater than 45°
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 30° to 60°
Change of course	Entering a turn of less than 90°
Cascade occurs	No

10.2 Symmetric front collapse in accelerated flight	C
Entry	Rocking back greater than 45°
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 30° to 60°
Change of course	Entering a turn of less than 90°
Cascade occurs	No

11 Exiting deep stall (parachutal stall)	B
Deep stall achieved	Yes
Recovery	Spontaneous in less than 3 s
Dive forward angle on exit	Dive forward 30° to 60°
Change of course	Changing course less than 45°
Cascade occurs	No

12 High angle of attack recovery	A
Recovery	Spontaneous in less than 3 s
Cascade occurs	No

13 Recovery from a developed full stall	B
Dive forward angle on exit	Dive forward 30° to 60°
Collapse	No collapse
Cascade occurs (other than collapses)	No
Rocking back	Greater than 45°
Line tension	Most lines tight

14.1 Asymmetric collapse 45-50%	A
Change of course until re-inflation	Less than 90°
Maximum dive forward or roll angle	Dive or roll angle 15° to 45°
Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°

Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.2 Asymmetric collapse 70-75% — C

Change of course until re-inflation	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°
Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°
Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.3 Asymmetric collapse 45-50% in accelerated flight — C

Change of course until re-inflation	Less than 90°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°
Re-inflation behaviour	Spontaneous re-inflation
Total change of course	Less than 360°
Collapse on the opposite side occurs	No
Twist occurs	No
Cascade occurs	No

14.4 Asymmetric collapse 70-75% in accelerated flight — D

Change of course until re-inflation	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 60° to 90°
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action
Total change of course	Less than 360°
Collapse on the opposite side occurs	Yes, causing turn reversal
Twist occurs	No
Cascade occurs	No

15 Directional control with a maintained asymmetric collapse — C

Able to keep course	Yes
180° turn away from the collapsed side possible in 10 s	Yes
Amount of control range between turn and stall or spin	25 % to 50 % of the symmetric control travel

16 Trim speed spin tendency — A

Spin occurs	No

17 Low speed spin tendency — A

Spin occurs	No

18 Recovery from a developed spin — C

Spin rotation angle after release	Stops spinning in 90° to 180°
Cascade occurs	No

19 B-line stall — D

Change of course before release	Changing course more than 45°
Behaviour before release	Unstable
Recovery	Recovery through pilot action in less than a further 3 s
Dive forward angle on exit	Dive forward 0° to 30°
Cascade occurs	No

20 Big ears	B
Entry procedure	Dedicated controls
Behaviour during big ears	Stable flight
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°

21 Big ears in accelerated flight	A
Entry procedure	Dedicated controls
Behaviour during big ears	Stable flight
Recovery	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight

22 Behaviour exiting a steep spiral	A
Tendency to return to straight flight	Spontaneous exit
Turn angle to recover normal flight	Less than 720°, spontaneous recovery
Sink rate when evaluating spiral stability [m/s]	14

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

24 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

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Sprachmodul tmo_pruefauftraege
Sprachmodul dhv_adressen
Sprachmodul tmo_muster
Sprachmodul tmo_musterfremd
Sprachmodul tmo_pruefungsarten
Sprachmodul dhv_adressenperson
Sprachmodul dhv_adressenumsetzung
Sprachmodul dhv_adressen_constants