



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

GS TESTFLUG LTF 2009 MAC PARA CHARGER 25

Test No 027416-GSTF09-786-Beni
 Test date 07.08.2015
 Location Garmisch /Osterfelder
 Type Mac Para Charger 25
 Test type GS Testflug LTF 2009
 Test order Auftrag GS Musterprüfung Mac Para Charger 25 (MAC Para Technology)
 Customer MAC Para Technology
 Test standard LTF NFL 11-91/09 und NFL 2-60-14
 Test standard 2 EN 926-2:2014
 Expert Stocker
 Result positive
 Billing to: 100%
 Technical peculiarities

Datum / Unterschrift (Beni Stocker)

RESULTS

PG test flight (general)

Take off weight [kg] 75
 Weight limit for certification [kg] 75
 Number of pilots 1
 test pilot Beni Stocker
 Harness type SUP AIR 02
 Harness category GH
 Minimum speed [km/h] 21
 Trim speed [km/h] 32
 Accelerated speed [km/h] 0
 Accelerator used? Yes
 Trims -

en : Klassifizierung

en : Klassifizierung B

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 55 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	A
Sink rate after two turns Up to 12 m/s	
10.1 Symmetric front collapse	A
Entry Rocking back less than 45°	
Recovery Spontaneous in less than 3 s	
Dive forward angle on exit Dive forward 0° to 30°	
Change of course Entering a turn of less than 90°	
Cascade occurs No	
10.2 Symmetric front collapse in accelerated flight	B
Entry Rocking back less than 45°	
Recovery Spontaneous in 3 s to 5 s	
Dive forward angle on exit Dive forward 0° to 30°	
Change of course Entering a turn of less than 90°	
Cascade occurs No	
11 Exiting deep stall (parachutal stall)	A
Deep stall achieved Yes	
Recovery Spontaneous in less than 3 s	
Dive forward angle on exit Dive forward 0° to 30°	
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	A
Dive forward angle on exit Dive forward 0° to 30°	
Collapse No collapse	
Cascade occurs (other than collapses) No	
Rocking back Less 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 0° to 15°	
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%	B
Change of course until re-inflation 90° to 180°	
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	
14.3 Asymmetric collapse 45-50% in accelerated flight	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	
14.4 Asymmetric collapse 70-75% in accelerated flight	B
Change of course until re-inflation 90° to 180°	
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	

15 Directional control with a maintained asymmetric collapse	A
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 More than 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	A
Spin rotation angle after release Stops spinning in less than 90° Cascade occurs No	
19 B-line stall	A
Change of course before release Changing course less than 45° Behaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Cascade occurs No	
20 Big ears	A
Entry procedure Dedicated controls Behaviour during big ears Stable flight Recovery Spontaneous in less than 3 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 less than 3 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 14 [m/s]	
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	