



GS TESTFLUG LTF 2009 GRADIENT BRIGHT 5 22

Test No 026986-GSTF09-712-Harry
Test date 24.04.2014
Location Gardasee / Mt Baldo
Type Gradient Bright 5 22
Test type GS Testflug LTF 2009
Test order Auftrag GS Musterprüfung Gradient Bright 5 22 (Gradient s.r.o.)
Customer Gradient s.r.o.
Test standard LTF NFL II-91/09
Test standard 2 EN 926-2:2005
Expert Buntz
Result positive
Billing to: 100%
Technical peculiarities Tizziana Tozzo 55 Kg Take off weight - tested deep stall behaviours too

Datum / Unterschrift (Harald Buntz)

RESULTS

PG test flight (general)

Take off weight [kg] 55
Weight limit for certification [kg] 55
Number of pilots 1
test pilot Gudrun Öchsl
Harness type Exense T-LOCK
Harness category GH
Minimum speed [km/h] 20
Trim speed [km/h] 31
Accelerated speed [km/h] 41
Accelerator used? Yes
Trims -

en : Klassifizierung

en : Klassifizierung A

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 Keeping course
Cascade occurs No

10.2 Symmetric front collapse in accelerated flight **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 Keeping course
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% **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

14.3 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 **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

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 [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



GS TESTFLUG LTF 2009 GRADIENT BRIGHT 5 22

Test No 026502-GSTF09-618-Beni
Test date 10.04.2014
Location Gardasee / Mt Baldo
Type Gradient Bright 5 22
Test type GS Testflug LTF 2009
Test order Auftrag GS Musterprüfung Gradient Bright 5 22 (Gradient s.r.o.)
Customer Gradient s.r.o.
Test standard EN 926-2:2005
Test standard 2 EN 926-2:2005
Expert Stocker
Result positive
Billing to: 100%

Technical peculiarities

B *Stocker*

Datum / Unterschrift (Beni Stocker)

RESULTS

PG test flight (general)

Take off weight [kg] 67
Weight limit for certification [kg] 67
Number of pilots 1
test pilot Tiziana Tozzo
Harness type SUP' AIR 02
Harness category GH
Minimum speed [km/h] 23
Trim speed [km/h] 34
Accelerated speed [km/h] 0
Accelerator used? Yes
Trimms -

en : Klassifizierung

en : Klassifizierung A

EN : ERGEBNISDETAILS NACH LTF 2009

1 Inflation/take-off

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

2 Landing

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Minimum speed Less than 25 km/h

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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 12 m/s to 14 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 Keeping course
Cascade occurs No

10.2 Symmetric front collapse in accelerated flight **A**

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Recovery Spontaneous in less than 3 s
Dive forward angle on exit Dive forward 0° to 30°
Change of course Keeping course
Cascade occurs No

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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

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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

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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**

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

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Twist occurs No
Cascade occurs No

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180° turn away from the collapsed side possible in 10 s Yes
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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 [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