



DHV-tested Equipment

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DHV TESTREPORT LTF 2009

| SKYWALK CAYENNE 4 S | | |
|---|---|---|
| Type designation | Skywalk Cayenne 4 S | |
| Type test reference no | DHV GS-01-1970-12 | |
| Holder of certification | Skywalk GmbH & Co. KG | |
| Manufacturer | Skywalk GmbH & Co. KG | |
| Classification | C | |
| Winch towing | Yes | |
| Number of seats min / max | 1 / 1 | |
| Accelerator | Yes | |
| Trimmers | No | |
| | BEHAVIOUR AT MIN WEIGHT IN FLIGHT (75KG) | BEHAVIOUR AT MAX WEIGHT IN FLIGHT (100KG) |
| Test pilots |  |  |
| | Beni Stocker | Harry Buntz |
| Inflation/take-off | A | A |
| Rising behaviour | Smooth, easy and constant rising | Smooth, easy and constant rising |
| Special take off technique required | No | No |
| Landing | A | A |
| Special landing technique required | No | No |
| Speeds in straight flight | A | A |
| Trim speed more than 30 km/h | Yes | Yes |
| Speed range using the controls larger than 10 km/h | Yes | Yes |
| Minimum speed | Less than 25 km/h | Less than 25 km/h |
| Control movement | C | C |
| Symmetric control pressure | Increasing | Increasing |
| Symmetric control travel | 40 cm to 55 cm | 45 cm to 60 cm |
| Pitch stability exiting accelerated flight | A | A |
| Dive forward angle on exit | Dive forward less than 30° | Dive forward less than 30° |
| Collapse occurs | No | No |
| Pitch stability operating controls during accelerated flight | A | A |
| Collapse occurs | No | No |
| Roll stability and damping | A | A |
| Oscillations | Reducing | Reducing |
| Stability in gentle spirals | A | A |
| Tendency to return to straight flight | Spontaneous exit | Spontaneous exit |
| Behaviour in a steeply banked turn  | A | B |
| Sink rate after two turns | Up to 12 m/s | More than 14 m/s |

| | | |
|---|----------|--------------------------------|
| Symmetric front collapse | A | C |
| Entry Rocking back less than 45° | | Rocking back less than 45° |
| Recovery Spontaneous in less than 3 s | | Spontaneous in 3 s to 5 s |
| Dive forward angle on exit Dive forward 0° to 30° | | Dive forward 0° to 30° |
| Change of course Keeping course | | Entering a turn of 90° to 180° |
| Cascade occurs No | | No |
| Symmetric front collapse in accelerated flight | B | C |
| Entry Rocking back less than 45° | | Rocking back greater than 45° |
| Recovery Spontaneous in 3 s to 5 s | | Spontaneous in 3 s to 5 s |
| Dive forward angle on exit Dive forward 0° to 30° | | Dive forward 30° to 60° |
| Change of course Keeping course | | Entering a turn of 90° to 180° |
| Cascade occurs No | | No |
| Exiting deep stall (parachutal stall) | A | A |
| Deep stall achieved Yes | | Yes |
| Recovery Spontaneous in less than 3 s | | Spontaneous in less than 3 s |
| Dive forward angle on exit Dive forward 0° to 30° | | Dive forward 0° to 30° |
| Change of course Changing course less than 45° | | Changing course less than 45° |
| Cascade occurs No | | No |
| High angle of attack recovery | A | A |
| Recovery Spontaneous in less than 3 s | | Spontaneous in less than 3 s |
| Cascade occurs No | | No |
| Recovery from a developed full stall | B | B |
| Dive forward angle on exit Dive forward 30° to 60° | | Dive forward 30° to 60° |
| Collapse No collapse | | No collapse |
| Cascade occurs (other than collapses) No | | No |
| Rocking back Greater than 45° | | Greater than 45° |
| Line tension Most lines tight | | Most lines tight |
| Asymmetric collapse 45-50% | B | B |
| 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 Spontaneous re-inflation | | Spontaneous re-inflation |
| Total change of course Less than 360° | | Less than 360° |
| Collapse on the opposite side occurs No | | No |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| Asymmetric collapse 70-75% | C | C |
| Change of course until re-inflation 90° to 180° | | 180° to 360° |
| Maximum dive forward or roll angle Dive or roll angle 45° to 60° | | Dive or roll angle 45° to 60° |
| Re-inflation behaviour Spontaneous re-inflation | | Spontaneous re-inflation |
| Total change of course Less than 360° | | Less than 360° |
| Collapse on the opposite side occurs Yes, no turn reversal | | Yes, no turn reversal |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| Asymmetric collapse 45-50% in accelerated flight | B | B |
| 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 Spontaneous re-inflation | | Spontaneous re-inflation |
| Total change of course Less than 360° | | Less than 360° |
| Collapse on the opposite side occurs No | | No |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| Asymmetric collapse 70-75% in accelerated flight | C | C |
| Change of course until re-inflation 90° to 180° | | 180° to 360° |
| Maximum dive forward or roll angle Dive or roll angle 45° to 60° | | Dive or roll angle 45° to 60° |
| Re-inflation behaviour Spontaneous re-inflation | | Spontaneous re-inflation |
| Total change of course Less than 360° | | Less than 360° |
| Collapse on the opposite side occurs Yes, no turn reversal | | Yes, no turn reversal |
| Twist occurs No | | No |
| Cascade occurs No | | No |
| Directional control with a maintained asymmetric collapse | C | A |

| | | |
|---|--|--|
| Able to keep course | Yes | Yes |
| 180° turn away from the collapsed side possible in 10 s | Yes | Yes |
| Amount of control range between turn and stall or spin | 25 % to 50 % of the symmetric control travel | More than 50 % of the symmetric control travel |
| Trim speed spin tendency | | |
| Spin occurs | No | No |
| Low speed spin tendency | | |
| Spin occurs | No | No |
| Recovery from a developed spin | | |
| Spin rotation angle after release | Stops spinning in less than 90° | Stops spinning in less than 90° |
| Cascade occurs | No | No |
| B-line stall | | |
| Change of course before release | Changing course less than 45° | Changing course less than 45° |
| Behaviour before release | Remains stable with straight span | Remains stable without straight span |
| Recovery | Spontaneous in less than 3 s | Spontaneous in less than 3 s |
| Dive forward angle on exit | Dive forward 0° to 30° | Dive forward 0° to 30° |
| Cascade occurs | No | No |
| Big ears | | |
| Entry procedure | Dedicated controls | 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° |
| Big ears in accelerated flight | | |
| Entry procedure | Dedicated controls | 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° |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | Stable flight |
| Behaviour exiting a steep spiral | | |
| Tendency to return to straight flight | Spontaneous exit | Spontaneous exit |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | Less than 720°, spontaneous recovery |
| Sink rate when evaluating spiral stability [m/s] | 14 | 14 |
| 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 | | |