

TECHNICAL DATA

DHV TESTREPORT LTF

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DATASHEET

PARTS LIST

OPERATING INSTRUCTION

PRINT



DHV TESTREPORT EN926-2:2005

NOVA ION3 S

Type designation NOVA Ion3 S
Type test reference no DHV GS-01-2057-13
Holder of certification [NOVA Vertriebsgesellschaft m.b.H.](#)
Manufacturer [NOVA Vertriebsgesellschaft m.b.H.](#)
Classification B
Winch towing Yes
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (80KG)

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
Special take off technique required No

Smooth, easy and constant rising
 No

Landing

A

A

Special landing technique required No

No

Speeds in straight flight

A

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

Yes
 Yes
 Less than 25 km/h

Control movement

A

A

Symmetric control pressure Increasing
Symmetric control travel Greater than 60 cm

Increasing
 Greater than 60 cm

Pitch stability exiting accelerated flight

A

A

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

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

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

A

Sink rate after two turns 12 m/s to 14 m/s

12 m/s to 14 m/s

Symmetric front collapse

A

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

Rocking back less than 45°
 Spontaneous in less than 3 s
 Dive forward 0° to 30°
 Entering a turn of less than 90°
 No

| | | |
|---|----------|----------------------------------|
| Symmetric front collapse in accelerated flight | A | B |
| 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 Entering a turn of less than 90° | | Entering a turn of less than 90° |
| 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 | A | A |
| Dive forward angle on exit Dive forward 0° to 30° | | Dive forward 0° to 30° |
| Collapse No collapse | | No collapse |
| Cascade occurs (other than collapses) No | | No |
| Rocking back Less than 45° | | Less than 45° |
| Line tension Most lines tight | | Most lines tight |
| Asymmetric collapse 45-50% | A | A |
| Change of course until re-inflation Less than 90° | | 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 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% | B | A |
| 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 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 45-50% in accelerated flight | A | A |
| Change of course until re-inflation Less than 90° | | 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 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 | 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 |
| Directional control with a maintained asymmetric collapse | A | 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 | More than 50 % of the symmetric control travel | More than 50 % of the symmetric control travel |
| Trim speed spin tendency | A | A |
| Spin occurs | No | No |
| Low speed spin tendency | A | A |
| Spin occurs | No | No |
| Recovery from a developed spin | A | A |
| Spin rotation angle after release | Stops spinning in less than 90° | Stops spinning in less than 90° |
| Cascade occurs | No | No |
| B-line stall | A | A |
| 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 with 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 | B | B |
| Entry procedure | Dedicated controls | Dedicated controls |
| Behaviour during big ears | Stable flight | Stable flight |
| Recovery | Recovery through pilot action in less than a further 3 s | Spontaneous in 3 s to 5 s |
| Dive forward angle on exit | Dive forward 0° to 30° | Dive forward 0° to 30° |
| Big ears in accelerated flight | A | A |
| Entry procedure | Dedicated controls | Dedicated controls |
| Behaviour during big ears | Stable flight | Stable flight |
| Recovery | Spontaneous in 3 s to 5 s | Spontaneous in less than 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 | A | A |
| 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 | A | A |
| 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 | |