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## DHV TESTREPORT EN 926-2:2013+A1:2021

**NOVAION7XS** 

Inflation/take-off

Control movement

Type designation NOVA Ion 7 XS Type test reference no DHV GS-01-2750-22

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 (70KG)



Beni Stocker

No release



No release

Α Smooth, easy and constant rising Rising behaviour Smooth, easy and constant rising

Special take off technique required No

No

BEHAVIOUR AT MAX WEIGHT

IN FLIGHT (95KG)

Special landing technique required No

Speeds in straight flight

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

Symmetric control pressure Increasing

Symmetric control travel Greater than 55 cm

Greater than 60 cm

Less than 25 km/h

Pitch stability exiting accelerated flight

Dive forward angle on exit Dive forward less than 30°

Collapse occurs No

Dive forward less than 30°

Nο

Pitch stability operating controls during accelerated flight

Α

Collapse occurs No Nο

Roll stability and damping

**Oscillations** Reducing

Reducing

Stability in gentle spirals

Tendency to return to straight flight Spontaneous exit

Behaviour exiting a fully developed spiral dive

Initial response of glider (first 180°) en : keine unmittelbare Reaktion

**Tendency to return to straight flight** Spontaneous exit (g force decreasing, rate of turn decreasing)

Turn angle to recover normal flight 720° to 1 080°, spontaneous recovery

en : keine unmittelbare Reaktion Spontaneous exit (g force decreasing,

720° to 1 080°, spontaneous recovery

Symmetric front collapse

**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

Rocking back less than 45° Spontaneous in less than 3 s Dive forward 0° to 30° Keeping course

rate of turn decreasing)

Α

no

No

nο

Α

Nο

Rocking back less than 45°

Rocking back less than 45°

Dive forward 0° to 30°

Spontaneous in less than 3 s

Entering a turn of less than 90°

Spontaneous in less than 3 s

Dive forward 0° to 30°

No collapse

Less than 45°

Most lines tight

Less than 360°

Less than 360°

No (or only a small number of collapsed

No (or only a small number of collapsed

cells with a spontaneous re inflation)

Dive forward 0° to 30°

Spontaneous in less than 3 s

Entering a turn of less than 90°

Cascade occurs No Folding lines used no no

Unaccelerated collapse (at least 50 % chord) 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 Folding lines used no

Accelerated collapse (at least 50 % chord)

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 Folding lines used no

Exiting deep stall (parachutal stall)

**Deep stall achieved** Yes Yes

**Recovery** Spontaneous in less than 3 s Dive forward angle on exit Dive forward  $0^{\circ}$  to  $30^{\circ}$ 

Dive forward 0° to 30° Change of course Changing course less than 45° Changing course less than 45°

Cascade occurs No

High angle of attack recovery Α

> **Recovery** Spontaneous in less than 3 s Spontaneous in less than 3 s

Cascade occurs No

Recovery from a developed full stall

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

Small asymmetric collapse

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° Spontaneous re-inflation

Re-inflation behaviour Spontaneous re-inflation

Total change of course Less than 360°

Collapse on the opposite side occurs No (or only a small number of collapsed cells

with a spontaneous re inflation)

cells with a spontaneous re inflation) Twist occurs No Nο

Nο Cascade occurs No Folding lines used no no

<u>Large asymmetric collapse</u> Α

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°

Collapse on the opposite side occurs No (or only a small number of collapsed cells

with a spontaneous re inflation)

Twist occurs No Cascade occurs No

No Folding lines used no no

Small asymmetric collapse accelerated Α

> 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 (or only a small number of collapsed cells No (or only a small number of collapsed with a spontaneous re inflation) cells with a spontaneous re inflation)

> Twist occurs No No Cascade occurs No Nο Folding lines used no no

Large asymmetric collapse accelerated	В	В
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°
_	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course	•	Less than 360°
_	No (or only a small number of collapsed cells with a spontaneous re inflation)	No (or only a small number of collapse cells with a spontaneous re inflation)
Twist occurs	s No	No
Cascade occurs	No	No
Folding lines used	no	no
Directional control with a maintained	A	A
asymmetric collapse	<u>i</u>	1
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	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	Α
Spin rotation angle after release	Stops spinning in less than 90°	Stops spinning in less than 90°
Cascade occurs	s No	No
B-line stall	A	A
Change of course before release	Changing course less than 45°	Changing course less than 45°
_		Remains stable with straight span
Benaviour before release	Remains stable with straight span	Remains stable with straight span
	Spontaneous in less than 3 s	Spontaneous in less than 3 s
	Spontaneous in less than 3 s	
Recovery	Spontaneous in less than 3 s Dive forward 0° to 30°	Spontaneous in less than 3 s
Recovery Dive forward angle on exit	Spontaneous in less than 3 s Dive forward 0° to 30°	Spontaneous in less than 3 s Dive forward 0° to 30°
Recovery Dive forward angle on exit Cascade occurs <u>Big ears</u>	Spontaneous in less than 3 s Dive forward 0° to 30° No	Spontaneous in less than 3 s Dive forward 0° to 30° No
Recovery Dive forward angle on exit Cascade occurs <u>Big ears</u> Entry procedure	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls
Recovery Dive forward angle on exit Cascade occurs <u>Big ears</u> Entry procedure Behaviour during big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls	Spontaneous in less than 3 s Dive forward 0° to 30° No
Recovery Dive forward angle on exit Cascade occurs <u>Big ears</u> Entry procedure Behaviour during big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight
Recovery Dive forward angle on exit Cascade occurs  Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s
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Recovery Dive forward angle on exit Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight  Entry procedure Behaviour during big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls
Recovery Dive forward angle on exit Cascade occurs  Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight Entry procedure Behaviour during big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less
Recovery Dive forward angle on exit Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight  Entry procedure Behaviour during big ears Recovery	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s
Recovery Dive forward angle on exit Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Behaviour during big ears Recovery  Dive forward angle on exit	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30°
Recovery Dive forward angle on exit Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight  Entry procedure Behaviour during big ears Recovery  Dive forward angle on exit  Behaviour during big ears Recovery  Dive forward angle on exit  Behaviour immediately after releasing the accelerator while maintaining big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight A	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight
Recovery Dive forward angle on exit  Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight  Entry procedure Behaviour during big ears Recovery  Dive forward angle on exit  Behaviour immediately after releasing the accelerator while maintaining big ears	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight A Yes	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight
Recovery Dive forward angle on exit  Cascade occurs  Big ears  Entry procedure Behaviour during big ears Recovery Dive forward angle on exit  Big ears in accelerated flight  Entry procedure Behaviour during big ears Recovery  Dive forward angle on exit  Behaviour immediately after releasing the accelerator while maintaining big ears  Alternative means of directional control	Spontaneous in less than 3 s Dive forward 0° to 30° No  A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight LA Yes No	Spontaneous in less than 3 s Dive forward 0° to 30° No  A  Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°  B  Dedicated controls Stable flight Recovery through pilot action in less than a further 3 s Dive forward 0° to 30° Stable flight  A  Yes

No other flight procedure or configuration described in the user's manual