



DHV TESTREPORT LTF 2009

NOVA MENTOR 4 M

Type designation NOVA Mentor 4 M
Type test reference no DHV GS-01-2116-14
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 (90KG)

Test pilots



Beni Stocker

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (110KG)



Sebastian Mackrodt

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	A	A
Symmetric control pressure Increasing		Increasing
Symmetric control travel Greater than 60 cm		Greater than 65 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 12 m/s to 14 m/s		More than 14 m/s
Symmetric front collapse	B	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 30° to 60°		Dive forward 30° to 60°
Change of course Entering a turn of less than 90°		Entering a turn of less than 90°
Cascade occurs No		No
Symmetric front collapse in accelerated flight	B	B
Entry Rocking back less than 45°		Rocking back less than 45°
Recovery Spontaneous in 3 s to 5 s		Spontaneous in 3 s to 5 s
Dive forward angle on exit Dive forward 30° to 60°		Dive forward 30° to 60°

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**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 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****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 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

Not carried out because the manoeuvre is excluded in the user's manual

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	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**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	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**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