

DHV TESTREPORT EN926-2:2014

MAC PARA PARADIS 24

Type designation	MAC Para Paradis 24
Type test reference no	DHV GS-01-2304-17
Holder of certification	MAC Para Technology Ges.m.b.H.
Manufacturer	MAC Para Technology
Classification	B
Winch towing	Yes
Number of seats min / max	1 / 1
Accelerator	Yes
Trimmers	No


BEHAVIOUR AT MIN WEIGHT IN FLIGHT (70KG)
BEHAVIOUR AT MAX WEIGHT IN FLIGHT (90KG)
Test pilots

Beni Stocker

Harald 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

 Yes
 Yes

Minimum speed Less than 25 km/h

Less than 25 km/h

Control movement
A
A
Symmetric control pressure Increasing
Symmetric control travel Greater than 55 cm

 Increasing
 Greater than 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

en : Verhalten beim Verlassen einer vollständigen Steilspirale
A
A
en : Erstes Ansprechen des Gleitschirms (die ersten 180°) en : unmittelbare Verringerung der Drehgeschwindigkeit

en : unmittelbare Verringerung der Drehgeschwindigkeit

Tendency to return to straight flight en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

Turn angle to recover normal flight Less than 720°, spontaneous recovery

Less than 720°, spontaneous recovery

Symmetric front collapse
A
A

Entry	Rocking back less than 45°	Rocking back less than 45°
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	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

**en : Symmetrischer Frontklapper
mindestens 50% Flügeltiefe**

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 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
en : Faltleinen wurden benutzt	no	no

**en : Symmetrischer Frontklapper im
beschleunigten Flug**

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
en : Faltleinen wurden benutzt	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

en : Kleiner einseitiger Klapper

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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

en : Großer einseitiger Klapper

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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

**en : Kleiner einseitiger Klapper im
beschleunigten Flug**

A

A

Change of course until re-inflation	Less than 90°	Less than 90°
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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
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Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

en : Großer einseitiger Klapper im beschleunigten Flug

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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	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
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Low speed spin tendency

A

A

Spin occurs	No	No
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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

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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

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