

DHV TESTREPORT EN926-2:2014



MAC PARA MAGUS LXC 22

Type designation	MAC PARA Magus LXC 22
Type test reference no	DHV GS-01-2552-20
Holder of certification	MAC Para Technology
Manufacturer	MAC Para Technology
Classification	D
Winch towing	Yes
Number of seats min / max	1 / 1
Accelerator	Yes
Trimmers	No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (88KG)

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (99KG)

Test pilots



Harald Buntz

No release



Sebastian Mackrodt

No release

Inflation/take-off**B****B**

Rising behaviour en : einfaches Aufziehen, etwas Korrektur des Piloten erforderlich

en : einfaches Aufziehen, etwas Korrektur des Piloten erforderlich

Special take off technique required No

No

Landing**A****A**

Special landing technique required No

No

Speeds in straight flight**B****A**

Trim speed more than 30 km/h Yes

Yes

Speed range using the controls larger than 10 km/h Yes

Yes

Minimum speed 25 km/h to 30 km/h

Less than 25 km/h

Control movement**C****C**

Symmetric control pressure Increasing

Increasing

Symmetric control travel 45 cm to 60 cm

45 cm to 60 cm

Pitch stability exiting accelerated flight**C****A**

Dive forward angle on exit Dive forward 30° to 60°

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	B	D
en : Erstes Ansprechen des Gleitschirms (die ersten 180°)	en : keine unmittelbare Reaktion	en : keine unmittelbare Reaktion
Tendency to return to straight flight	en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)	en : Drehung bleibt konstant(G-Kraft konstant, Drehgeschwindigkeit konstant)
Turn angle to recover normal flight	720° to 1 080°, spontaneous recovery	With pilot action
Symmetric front collapse	D	D
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 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	yes	yes
en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe	D	D
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 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	yes	yes
en : Symmetrischer Frontklapper im beschleunigten Flug mindestens 50% Flügeltiefe	D	D
Entry	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Recovery through pilot action in less than a further 3 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 90° to 180°
Cascade occurs	No	No
en : Faltleinen wurden benutzt	yes	yes
Exiting deep stall (parachutal stall)	D	C
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 60° to 90°	Dive forward 30° to 60°
Change of course	Changing course less than 45°	Changing course 45° or more
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	C	C
Dive forward angle on exit	Dive forward 60° to 90°	Dive forward 30° to 60°
Collapse	No collapse	Symmetric collapse
Cascade occurs (other than collapses)	No	No
Rocking back	Greater than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
en : Kleiner einseitiger Klapper	D	D
Change of course until re-inflation	Less than 90°	180° to 360°
Maximum dive forward or roll angle	Dive or roll angle 15° to 45°	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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	Yes, no turn reversal
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	yes	yes
en : Großer einseitiger Klapper	D	D
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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	Yes, causing turn reversal
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	yes	yes
en : Kleiner einseitiger Klapper im beschleunigten Flug		
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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	Yes, no turn reversal
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	yes	yes
en : Großer einseitiger Klapper im beschleunigten Flug		
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 60° to 90°
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)	Yes, causing turn reversal
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	yes	yes
Directional control with a maintained asymmetric collapse		
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	25 % to 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		
Not carried out because the manoeuvre is excluded in the user's manual		
Big ears		
Entry procedure	Dedicated controls	Standard technique
Behaviour during big ears	Stable flight	Stable flight
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°
Big ears in accelerated flight		
Entry procedure	Dedicated controls	Standard technique
Behaviour during big ears	Stable flight	Unstable flight
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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight
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