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DHV TESTREPORT EN926-2:2014

PHI TENOR 21

Type designation PHI Tenor 21
Type test reference no DHV GS-01-2367-18
Holder of certification [Papesh GmbH](#)
Manufacturer [Papesh GmbH](#)
Classification B
Winch towing Yes
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (75KG)

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (95KG)

Test pilots



Beni Stocker



Harald Buntz

Inflation/take-off

Rising behaviour	Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	No	No

Landing

Special landing technique required	No	No
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Speeds in straight flight

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

Symmetric control pressure	Increasing	Increasing
Symmetric control travel	Greater than 55 cm	Greater than 60 cm

Pitch stability exiting accelerated flight

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

Collapse occurs	No	No
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Roll stability and damping

Oscillations	Reducing	Reducing
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Stability in gentle spirals

Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
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en : Verhalten beim Verlassen einer vollständigen Steilspirale

en : Erstes Ansprechen des Gleitschirms (die ersten 180°)	en : keine unmittelbare Reaktion	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

Entry	Rocking back less than 45°	Rocking back less than 45°
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Recovery Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit Dive forward 0° to 30°		Dive forward 0° to 30°	
Change of course Keeping course		Keeping course	
Cascade occurs No		No	
en : Faltleinen wurden benutzt no		no	
en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe			
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°		Keeping course	
Cascade occurs No		No	
en : Faltleinen wurden benutzt no		no	
en : Symmetrischer Frontklapper im beschleunigten Flug mindestens 50% Flügeltiefe			
Entry Rocking back less than 45°	B	Rocking back less than 45°	B
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°		Keeping course	
Cascade occurs No		No	
en : Faltleinen wurden benutzt no		no	
Exiting deep stall (parachutal stall)			
Deep stall achieved Yes	A	Yes	A
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			
Recovery Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Cascade occurs No		No	
Recovery from a developed full stall			
Dive forward angle on exit Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
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			
Change of course until re-inflation Less than 90°	A	Less than 90°	A
Maximum dive forward or roll angle Dive or roll angle 0° to 15°		Dive or roll angle 0° to 15°	
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			
Change of course until re-inflation Less than 90°	A	Less than 90°	A
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			
Change of course until re-inflation Less than 90°	A	Less than 90°	A
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 im beschleunigten Flug			
Change of course until re-inflation 90° to 180°	B	90° to 180°	B
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

Low speed spin tendency

A

A

Spin occurs No

No

Recovery from a developed spin

A

B

Spin rotation angle after release Stops spinning in less than 90°

Stops spinning in 90° to 180°

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 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

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 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

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