



DHV-tested Equipment

Flying Equipment Database

Manufacturers / Dealers

Flying Schools

Clubs

DHV Databases

TECHNICAL DATA

DHV TESTREPORT LTF

DATASHEET

PARTS LIST

OPERATING INSTRUCTION

PRINT



DHV TESTREPORT EN926-2:2014

PHI SONATA 24

Type designation PHI Sonata 24
Type test reference no DHV GS-01-2354-18
Holder of certification [Papesh GmbH](#)
Manufacturer [Papesh GmbH](#)
Classification A
Winch towing Yes
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No


BEHAVIOUR AT MIN WEIGHT IN FLIGHT (90KG)

Test pilots



Harald Buntz

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (110KG)


Sebastian Mackrodt

<u>Inflation/take-off</u>	A	A
Rising behaviour	Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	No	No
<u>Landing</u>	A	A
Special landing technique required	No	No
<u>Speeds in straight flight</u>	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
<u>Control movement</u>	A	A
Symmetric control pressure	Increasing	Increasing
Symmetric control travel	Greater than 60 cm	Greater than 65 cm
<u>Pitch stability exiting accelerated flight</u>	A	A
Dive forward angle on exit	Dive forward less than 30°	Dive forward less than 30°
Collapse occurs	No	No
<u>Pitch stability operating controls during accelerated flight</u>	A	A
Collapse occurs	No	No
<u>Roll stability and damping</u>	A	A
Oscillations	Reducing	Reducing
<u>Stability in gentle spirals</u>	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
<u>en : Verhalten beim Verlassen einer vollständigen Steilspirale</u>	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
<u>Symmetric front collapse</u>	A	A

Entry Rocking back less than 45°	A	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 Keeping course		Keeping course
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
<hr/>		
en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe	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 Keeping course		Keeping course
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
<hr/>		
en : Symmetrischer Frontklapper im beschleunigten Flug mindestens 50% Flügeltiefe	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°		Keeping course
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
<hr/>		
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
<hr/>		
High angle of attack recovery	A	A
Recovery Spontaneous in less than 3 s		Spontaneous in less than 3 s
Cascade occurs No		No
<hr/>		
Recovery from a developed full stall	A	A
Dive forward angle on exit Dive forward 0° to 30°		Dive forward 0° to 30°
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
<hr/>		
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 0° to 15°		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
<hr/>		
en : Großer 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
<hr/>		
en : Kleiner einseitiger Klapper im beschleunigten Flug	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
<hr/>		
en : Großer einseitiger Klapper im beschleunigten Flug	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
<hr/>		
<u>Directional control with a maintained asymmetric collapse</u>	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
<hr/>		
<u>Trim speed spin tendency</u>	A	A
Spin occurs	No	No
<hr/>		
<u>Low speed spin tendency</u>	A	A
Spin occurs	No	No
<hr/>		
<u>Recovery from a developed spin</u>	A	A
Spin rotation angle after release	Stops spinning in less than 90°	Stops spinning in less than 90°
Cascade occurs	No	No
<hr/>		
<u>B-line stall</u>	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
<hr/>		
<u>Big ears</u>	A	A
Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
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°
<hr/>		
<u>Big ears in accelerated flight</u>	A	A
Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight
<hr/>		
<u>Alternative means of directional control</u>	A	A
180° turn achievable in 20 s	Yes	Yes
Stall or spin occurs	No	No
<hr/>		
<u>Any other flight procedure and/or configuration described in the user's manual</u>		
No other flight procedure or configuration described in the user's manual		