

DHV TESTREPORT EN926-2:2005

ADVANCE ALPHA 6 31

Type designation Advance Alpha 6 31 Type test reference no DHV GS-01-2164-15 Holder of certification ADVANCE Thun AG Manufacturer ADVANCE Thun AG

Classification A

Winch towing Yes

Number of seats min / max 1/1

Accelerator Yes Trimmers No.



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (100KG)

Test pilots



IN FLIGHT (145KG)

Spontaneous exit

12 m/s to 14 m/s

Sebastian Mackrodt **Reiner Brunn** Inflation/take-off A Rising behaviour Smooth, easy and constant rising Smooth, easy and constant rising Special take off technique required No Special landing technique required No Speeds in straight flight A Trim speed more than 30 km/h 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 60 cm Pitch stability exiting accelerated flight A Dive forward angle on exit Dive forward less than 30° Dive forward less than 30° Collapse occurs No Nο Pitch stability operating controls during accelerated flight Collapse occurs No Roll stability and damping A Α Oscillations Reducing Reducing Stability in gentle spirals A

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Behaviour in a steeply banked turn A

Tendency to return to straight flight Spontaneous exit

Sink rate after two turns 12 m/s to 14 m/s

Summetrie front college	!a	A
Symmetric front collapse	4	
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
Symmetric front collapse in accelerated flight	Α	A
Entry	Rocking back less than 45°	Rocking back less than 45°
-	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit		Dive forward 0° to 30°
	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs		No
cascade occurs		No
Exiting deep stall (parachutal stall)	A	A
	·	
Deep stall achieved	Yes	Yes
-	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	İA	A
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs		No
Recovery from a developed full stall	A	A
Dive fewered and an evit	Dive femurary 00 to 200	Dive femand 00 to 200
Dive forward angle on exit		Dive forward 0° to 30°
	No collapse	No collapse
Cascade occurs (other than collapses)		No
Rocking back	Less than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
Line tension Asymmetric collapse 45-50%	1	Most lines tight
Asymmetric collapse 45-50%	ja	A
Asymmetric collapse 45-50% Change of course until re-inflation	Less than 90°	Less than 90°
Asymmetric collapse 45-50% Change of course until re-inflation Maximum dive forward or roll angle	Less than 90° Dive or roll angle 0° to 15°	Less than 90° Dive or roll angle 0° to 15°
Asymmetric collapse 45-50% Change of course until re-inflation Maximum dive forward or roll angle Re-inflation behaviour	Less than 90° Dive or roll angle 0° to 15° Spontaneous re-inflation	Less than 90° Dive or roll angle 0° to 15° Spontaneous re-inflation
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Maximum dive forward or roll angle	Dive or roll angle 15° to 45°	Dive or roll angle 15° to 45°
_	r Spontaneous re-inflation	Spontaneous re-inflation
Total change of course	·	Less than 360°
Collapse on the opposite side occurs	s No	No
Twist occurs	s No	No
Cascade occur	s No	No
Directional control with a maintained asymmetric collapse	A	A
Able to keep course	e Yes	Yes
180° turn away from the collapsed side possible in		Yes
Amount of control range between turn and stall o spir		More than 50 % of the symmetric control travel
Trim speed spin tendency	l _A	I _A
Spin occurs	s No	No
Low speed spin tendency	l _A	l _A
Spin occur:		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	s No	No
1	1	1
<u>B-line stall</u>	<u>'A</u>	_ '
Change of course before release	e Changing course less than 45°	Changing course less than 45°
	Remains stable with straight span	Remains stable with straight span
	y Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30°
Dive forward angle on exi Cascade occur:		No
333333 3333		
Big ears	LA.	A
Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ear	s Stable flight	Stable flight
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exi	t Dive forward 0° to 30°	Dive forward 0° to 30°
Big ears in accelerated flight	A	A
1	Dedicated controls	Dedicated controls
Behaviour during big ear		Stable flight
	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exi	t Dive forward 0° to 30°	Dive forward 0° to 30°
Behaviour immediately after releasing the accelerator while maintaining big ear		Stable flight
Behaviour exiting a steep spiral	A	A
Tendency to return to straight fligh	t Spontaneous exit	Spontaneous exit
Turn angle to recover normal fligh	t 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	ia.	A
180° turn achievable in 20		Yes
Stall or spin occur		No
Stall 3. Spill occur.		
Any other flight procedure and/or configuration	on described in the user's manual	

No other flight procedure or configuration described in the user's manual $% \left(1\right) =\left(1\right) \left(1\right)$

by jursaconsulting

Deutscher Hängegleiterverband e.V.

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DHV-tested Equipment

Flying Equipment Database

Manufacturers / Dealers

Flying Schools

Clubs

DHV TESTREPORT LTF 2009

TECHNICAL DATA DATA TESTREPORT LTF DATA TESTREPORT EN DATASHEET PARTS LIST OPERATING INSTRUCTION PRINT

DHY

ADVANCE ALPHA 6 31

Type designation Advance Alpha 6 31

Type test reference no DHV GS-01-2164-15

Holder of certification ADVANCE Thun AG
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Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (100KG)

FLIGHT (100KG)



Reiner Brunn

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (145KG)



A

Inflation/take-off	['] A	A
Rising behaviou	r Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	I No	No
Landing	i A	A
Special landing technique required	I No	No
1		1
Speeds in straight flight	<u>'</u> A	¦A
Trim speed more than 30 km/h		Yes
Speed range using the controls larger than 10 km/h		Yes
Minimum speed	Less than 25 km/h	Less than 25 km/h
Control movement	la.	A
1======================================		
Symmetric control pressure	_	Increasing
Symmetric control trave	Greater than 60 cm	Greater than 65 cm
Pitch stability exiting accelerated flight	A	A
Dive forward angle on exi	t Dive forward less than 30°	Dive forward less than 30°
Collapse occurs	s No	No
	•	
Pitch stability operating controls during accelerated flight	A	A
·	<u> </u>	j
Collapse occurs	5 NO	No
Roll stability and damping	A	A
Oscillations	Reducing	Reducing
1	1	1
Stability in gentle spirals	'A	¦A
Tendency to return to straight flight	t Spontaneous exit	Spontaneous exit
	1	
Behaviour in a steeply banked turn	ia	A
Sink rate after two turns	s 12 m/s to 14 m/s	12 m/s to 14 m/s
Symmetric front collapse	l _A	A

Entry Rocking back less than 45° **Recovery** Spontaneous in less than 3 s

Rocking back less than 45° Spontaneous in less than 3 s

Dive forward angle on exit Change of course		Dive forward 0° to 30° Keeping course
Cascade occurs	· -	No
Symmetric front collapse in accelerated flight	j a	<u>i</u> A
	Rocking back less than 45°	Rocking back less than 45°
Recovery Dive forward angle on exit	/ Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30°
	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs	s No	No
1	1	1
Exiting deep stall (parachutal stall)	'A	<u>i</u> A
Deep stall achieved		Yes
אפנסטפרץ Dive forward angle on exit	y Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30°
_	changing course less than 45°	Changing course less than 45°
Cascade occurs	s No	No
High angle of attack recovery	I.a.	Å
1	Country and in location 2 a	4
Cascade occurs	y Spontaneous in less than 3 s	Spontaneous in less than 3 s No
Recovery from a developed full stall	İA	A
Dive forward angle on exi		Dive forward 0° to 30°
-	No collapse	No collapse
Cascade occurs (other than collapses)) No c Less than 45°	No Less than 45°
_	Most lines tight	Most lines tight
Asymmetric collapse 45-50%	<u>i</u> A	A
Change of course until re-inflation		Less than 90°
Maximum dive forward or roll angle	e Dive or roll angle 0° to 15° r Spontaneous re-inflation	Dive or roll angle 0° to 15° Spontaneous re-inflation
Total change of course	·	Less than 360°
Collapse on the opposite side occurs	s No	No
Twist occurs		No
Cascade occurs	5 NO	No
Asymmetric collapse 70-75%	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°
Re-inflation behaviou Total change of course	r Spontaneous re-inflation	Spontaneous re-inflation Less than 360°
Collapse on the opposite side occurs		No
Twist occurs	s No	No
Cascade occurs	5 No	No
Asymmetric collapse 45-50% in accelerated	i	i
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°
Re-Inflation behavious Total change of course	r Spontaneous re-inflation Less than 360°	Spontaneous re-inflation Less than 360°
Collapse on the opposite side occurs		No
Twist occurs	s No	No
Cascade occurs	s No	No
Asymmetric collapse 70-75% in accelerated	£.	i.
flight	¦A 	¦A
Change of course until re-inflation		Less than 90°
Maximum dive forward or roll angle	•	Dive or roll angle 15° to 45°
Total change of course	r Spontaneous re-inflation Less than 360°	Spontaneous re-inflation Less than 360°
Collapse on the opposite side occurs		No
Twist occurs		No
Cascade occurs	s No	No
Directional control with a maintained	1.	i.
asymmetric collapse	¦A	¦A
Able to keep course	a Yes	Yes
180° turn away from the collapsed side possible ir 10 s		Yes
Amount of control range between turn and stall of		More than 50 % of the symmetric
	travel	control travel
Trim speed spin tendency	ia.	¦A
		4
Spin occurs	s No	No

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Low speed spin tendency	ia.	A
Spin oc	ccurs No	No
	1	
Recovery from a developed spin	'A	'A
Spin rotation angle after rele	ease Stops spinning in less than 90°	Stops spinning in less than 90°
Cascade oc	ccurs No	No
B-line stall	A	Å
Change of course before rele	ease Changing course less than 45°	Changing course less than 45°
Behaviour before rele	ease Remains stable with straight span	Remains stable with straight span
Reco	very 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 oc	ccurs No	No
Big ears	A	A
Entry proce	dure Dedicated controls	Dedicated controls
Behaviour during big		Stable flight
	very Spontaneous in less than 3 s	Spontaneous in less than 3 s
	exit Dive forward 0° to 30°	Dive forward 0° to 30°
-		
Big ears in accelerated flight	A	A
Entry proce	dure Dedicated controls	Dedicated controls
Behaviour during big	ears Stable flight	Stable flight
Reco	very 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 Stable flight 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 fi	light Less than 720°, spontaneous recovery	Less than 720°, spontaneous recovery
Sink rate when evaluating spiral stability [n	m/s] 14	14
Alternative means of directional control	ÅA	¦A
180° turn achievable in	20 s Yes	Yes
Stall or spin oc	ccurs No	No
Any other flight procedure and/or configur	ation described in the user's manual	
1		
No other flight procedure or configuration described in the user's manual		

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