

# 1 LAMBADA SMALL CERTIFICATION

## Deutscher Hängegleiterverband e.V. im DAeC DHV/OeAeC-Technikreferat

LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel  
Beauftragter der österreichischen Luftfahrtbehörde

GS Testflug DHV03 Apco Lambada S

Test No	015380-GSTF03-654-Claude
Test date	08.10.2005
Type	Apco Lambada S
Test type	GS Testflug DHV03
Order	Auftrag GS Musterprüfung Apco Lambada S, GS Ö MAK Apco Lambada S (Apco Aviation Ltd.)
Customer	Apco Aviation Ltd.
Test standard	Lufttüchtigkeitsforderungen für HG und GS
Expert	Thurnheer
Result	positive
Billing to:	100%
Technical peculiarities	

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Datum / Unterschrift (Thurnheer)

DHV test flight main data

Harness type	Advance Hi-Comp
Take off weight [kg]	70
Weight limit for certification [kg]	70
Number of pilots	1
Trim speed [km/h]	36
Accelerated speed [km/h]	43
Classification	2

Supplementary remarks

PG test flight specific

Harness category	GH
Accelerator used?	Yes
Trimmings	-

DHV PG Test flight 2003 data

Take off	
Take off class.	1-2
Inflation	evenly, immediately
Rising behaviour	immediately comes over pilot
Take off speed	average
Take off handling	easy
Straight flight	
Straight flight class.	2
Speed range	slight
Roll damping	average
Pitch damping	average
Yaw stability	average
Turn handling	
Turn handling class.	2
Spin tendency	average
Control travel	average
Agility	average
Control pressure increase	average
Control without brakes	control through rear risers possible
Symmetric stall	
Deep-stall limit	2
Deep-stall limit	average 60 cm - 75 cm
Full stall limit	average 65 cm - 80 cm
Full stall with full steering way	yes, soft stall
Falling back	average
Increase in steering power	average
Front collapse	
Front collapse class.	2
Effort	slight
Pre-acceleration	slight
Opening behaviour	spontaneous, delayed
Front collapse (accelerated)	
Front collapse accelerated class.	2
Effort	average
Pre-acceleration	slight
Opening behaviour	spontaneous, delayed
Asymmetric collapse	
Asymmetric collapse class.	2
Turn tendency	90 - 180 degrees

Change of course	< 90 degrees
Rate of turn	high with deceleration
Max. roll/pitch angle	greater than 45 degrees
Loss of altitude	average
Stabilization	spontaneous
Opening behaviour	spontaneous

#### Asymmetric collapse (accelerated)

Asymmetric collapse acc. class.	2
Turn tendency	90 - 180 degrees
Change of course	< 90 degrees
Rate of turn	high with deceleration
Max. roll/pitch angle	greater than 45 degrees
Loss of altitude	average
Stabilization	spontaneous
Opening behaviour	spontaneous

#### Countersteering an asymmetric collapse

Countersteering an asymmetric collapse class.	2
Stabilization	countersteering easy
Control travel	average
Control pressure increase	average
Turn in opposite direction	easy, no tendency to stall
Opening behaviour	spontaneous, delayed

#### Full stall, symm. exit

Fullstall, symm. exit class	2
Behaviour	stable -

Reaction	average shoot forward no collapse
Turn tendency	no turn
Rate of turn	

Loss of altitude	
Stabilization	
Opening behaviour	

Spin out of straight flight	
Spin out of straight flight class.	2
Rate of turn	average
Exit	turn continues through 90 - 180 degrees
Reaction	average shoot forward to one side no collapse
Turn tendency	no turn
Rate of turn	
Loss of altitude	
Stabilization	
Opening behaviour	
Spin out of turn	
Spin out of turn class.	1-2
Reaction	slight shoot forward to one side no collapse
Turn tendency	no turn
Rate of turn	
Loss of altitude	
Stabilization	
Opening behaviour	
Spiral dive	
Spiral dive class.	2
Entry	average
Spin tendency	average
Exit	turn continues through 180 - 360 degrees
Sink rate after 720 °[m/s]	10
B-line stall	
B-line stall class.	2
Entry	easy
Exit	delayed acceleration < 4 sec
Big ears	
Big ears	1-2
Entry	easy
Recovery	spontaneous, quickly
Big ears accelerated	
Big ears acc. class.	1-2

Entry	easy
Recovery	spontaneous, quickly
Landing	
Landing class.	2
Point of flare	average
Landing speed	average
Landing behaviour	easy

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**Deutscher Hängegleiterverband e.V. im DAeC  
DHV/OeAeC-Technikreferat**

LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel  
Beauftragter der österreichischen Luftfahrtbehörde

**GS Testflug DHV03 Apco Lambada S**

Test No	015319-GSTF03-633-Harry
Test date	09.10.2005
Type	Apco Lambada S
Test type	GS Testflug DHV03
Order	Auftrag GS Musterprüfung Apco Lambada S, GS Ö MAK Apco Lambada S (Apco Aviation Ltd.)
Customer	Apco Aviation Ltd.
Test standard	Lufttüchtigkeitsforderungen für HG und GS
Expert	Buntz
Result	positive
Billing to:	100%
Technical peculiarities	

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Datum / Unterschrift (Buntz)

**DHV test flight main data**

Harness type	PEAK
Take off weight [kg]	90
Weight limit for certification [kg]	90
Number of pilots	1
Trim speed [km/h]	36
Accelerated speed [km/h]	44
Classification	2

## Supplementary remarks

Tendenz zu impulsiven Gegenklappern

### PG test flight specific

Harness category GH

Accelerator used? Yes

Trimms -

### DHV PG Test flight 2003 data

Take off

Take off class. 1-2

Inflation evenly, immediately

Rising behaviour immediately comes over pilot

Take off speed average

Take off handling easy

Straight flight

Straight flight class. 2

Speed range high

Roll damping average

Pitch damping slight

Yaw stability average

Turn handling

Turn handling class. 2

Spin tendency average

Control travel average

Agility average

Control pressure increase average

Control without brakes control through rear risers possible

Symmetric stall

Deep-stall limit 2

Deep-stall limit average 60 cm - 75 cm

Full stall limit average 65 cm - 80 cm

Full stall with full steering way yes, soft stall

Falling back average

Increase in steering power average

Front collapse

Front collapse class. 2

Effort slight

Pre-acceleration slight

Opening behaviour spontaneous, impulsive

Front collapse (accelerated)

Front collapse accelerated class.	2
Effort	slight
Pre-acceleration	average
Opening behaviour	spontaneous, delayed

#### Asymmetric collapse

Asymmetric collapse class.	2
Turn tendency	90 - 180 degrees
Change of course	180 - 360 degrees
Rate of turn	high

Max. roll/pitch angle	greater than 45 degrees
Loss of altitude	high
Stabilization	
Opening behaviour	spontaneous, impulsive

#### Asymmetric collapse (accelerated)

Asymmetric collapse acc. class.	2
Turn tendency	< 90 degrees
Change of course	180 - 360 degrees
Rate of turn	high

Max. roll/pitch angle	greater than 45 degrees
Loss of altitude	high
Stabilization	
Opening behaviour	spontaneous, impulsive

#### Countersteering an asymmetric collapse

Countersteering an asymmetric collapse class.	2
Stabilization	countersteering easy
Control travel	average
Control pressure increase	average
Turn in opposite direction	easy, no tendency to stall
Opening behaviour	spontaneous, delayed

#### Full stall, symm. exit

Fullstall, symm. exit class	2
Behaviour	nervous

Reaction	strong shoot forward front collapse
Turn tendency	
Rate of turn	high
Loss of altitude	high
Stabilization	
Opening behaviour	spontaneous, impulsive
Spin out of straight flight	
Spin out of straight flight class.	2
Rate of turn	high
Exit	turn continues through < 90 degrees
Reaction	strong shoot forward to one side asymmetric collapse
Turn tendency	90 - 180 degrees
Rate of turn	high
Loss of altitude	high
Stabilization	
Opening behaviour	spontaneous, impulsive
Spin out of turn	
Spin out of turn class.	2
Reaction	strong shoot forward to one side asymmetric collapse
Turn tendency	90 - 180 degrees
Rate of turn	high
Loss of altitude	high
Stabilization	
Opening behaviour	spontaneous, impulsive
Spiral dive	
Spiral dive class.	2
Entry	average
Spin tendency	slight
Exit	turn continues through 180 - 360 degrees
Sink rate after 720 °[m/s]	9
B-line stall	
B-line stall class.	2



Entry	easy
Exit	delayed acceleration < 4 sec
Big ears	
Big ears	2
Entry	easy
Recovery	not spontaneously
Big ears accelerated	
Big ears acc. class.	2
Entry	easy
Recovery	not spontaneously
Landing	
Landing class.	2
Point of flare	average
Landing speed	average
Landing behaviour	easy

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