

Yongin 2006-05-05

Application for approval of modification of GIN Beetle 38 DHV
GS 01-

Dear Harry and Reiner,

As you already have discussed with Hans Bausenwein on the telephone our new tandem glider **GIN YETI Tandem** is a modification of the existing GIN Beetle 38.

- The certified weight range stays the same.
- All line length are the same
- The flight characteristics in terms of behaviour in tests are the same
- What has been changed are the following materials
- A load test has been made successfully with GIN Yeti Tandem by DHV
- A flight test with maximum total flying weight has been made successfully by DHV test pilots

Materials	GIN Beetle 38	GIN Yeti Tandem
Top surface	9092 E85A	9017 E68A
Lower surface	9017 E38A	9017 E68A
Ribs	9017 E29A	9017 E29A
Diagonals	9017 E38A	9017 E38A
Reinforcements	P260	W420
Webbing for risers	GUTH	BAIN BRIDGE 4mm
Top lines	GIN KEV1.1	DSL70
Mid lines	GIN KEV1.5	PPSL120
Bottom lines	GIN KEV2.3	GIN KEV2.3
Line shackles	SUBO	Maillon Rapide 3mm

As on the modification from Bolero Plus to Yeti, only one successful test flight should be necessary and this has already been done.

We will send you all the usual paperwork for issuing a new certification under the name GIN Yeti Tandem:

FABRIC

SUPPLIER	NAME	N.C.V INDUSTRIES		
	ADDRESS	L'Isle d'Abeau, Parc de Chesnes, 75, rue du Ruisseau 38070 SAINT QUENTIN FALLAVIER Cedex / France		
TYPE OF FINISH		SIDE COATED(POLYURETHANE)		
TYPE OF YARN		PA 6.6 HIGH TENACITY – 33 dtex		
FABRIC CODE		9017 E68A (TOP, BOTTOM)	9017 E38A (DIAGONAL)	9017 E29A (PROFILE)
PATTERN		Rip Stop	Rip Stop	Rip Stop
Coated fabric's weight (g/sqm)		36+/-1.5	40+/-2	40+/-2
Tear Strength	2 mini	4.2 mini	1.5 mini	1.3 mini
	2mini	2.3 mini	1.5 mini	0.7 mini
Elongation on bias 3 lbs (%)		5+/-2	8 maxi	1 maxi
Elongation on bias 5 lbs (%)		11+/-4	17 maxi	2 maxi
Elongation on bias 10 lbs (%)		24+/-4	28 maxi	10 maxi
Break Strength	38 mini	47 mini	38 mini	38 mini
	33 mini	38mini	33mini	33mini
AIR Permeability p=2000Pa (l/SQMXMN)		20 maxi	40 maxi	100 maxi

SUSPENSION LINE

MATERIAL		Dyneemaline			ARAMID	
SUPPLIER	NAME	LIROS Flightsporttechnique			TEIJIN LIMITED, JAPAN	
	ADDRESS	Rosenberger Tauwerk GmbH Poststrasse 11, 95192 Lichtenberg GERMANY			1-1, UCHISAIWAI-CHO 2- CHOME, CHIYODA-KU, TOKYO 100, JAPAN	
Line type designation		DSL 70	PPSL 120	PPSL 200	GIN KEV2.0	GIN KEV2.3
Diameter(mm)		0.95	1.15	1.42	2.0	2.3
Strength min (daN)		70	120	200		
Strength eff. (daN)		92	159	241	240kg	400kg
Elongation at strength eff. (%)		2.8		1.59		
Elongation / Line creep at 10 daN (%)		0.36/0.04	0.20/0.036	0.24/0.128		
Elongation / Line creep at 30 daN (%)		1.0/0.25	0.58/0.13	0.55/0.26		
Weight (g/m)		0.67	1.00	1.60		

REINFORCEMENT

FABRIC CODE		W420 SCRIM	
SUPPLIER	NAME	PORCHER NCV Industries	
	ADDRESS	L'Isle d'Abeau, Parc de Chesnes, 75, rue du Ruisseau 38070 SAINT QUENTIN FALLAVIER Cedex / France	
MATERIAL		POLYETER SCRIM	
WEIGHT(GR/M²)		180	
BREAKING STRENGTH (KG/5Cm)	WARP	137	
	WEFT	118	
TEAR STRENGTH (KG/5Cm)	WARP	4.2	
	WEFT	4.1	
WEAVE DESIGN		RIPSTOP	

RISER

MATERIAL		Coated Dyneema leechline
SUPPLIER	NAME	BAINBRIDGE International Ltd.
	ADDRESS	8 Flanders Park, Hedge End, Southampton, Hants SO30 2FZ England
WEIGHT(GR/M)		8.8
BREAKING STRENGTH		1200 DAN
WIDTH(mm)		4mm

SPREAD BAR

MATERIAL		Coated Dyneema leechline
SUPPLIER	NAME	BAINBRIDGE International Ltd.
	ADDRESS	8 Flanders Park, Hedge End, Southampton, Hants SO30 2FZ England
WEIGHT(GR/M)		13.2
BREAKING STRENGTH		2700 DAN
WIDTH(mm)		6mm

MAILLONS

MATERIAL		MAILLON NORMAL T2 STAINLESS STEEL
SUPPLIER	NAME	PEGUET
	ADDRESS	BP 205 74105 ANNEMASSE CEDEX FRANCE
WEIGHT(GR)		5.3
BREAKING STRENGTH		800 kg
DIAMETER(mm)		3.0

BRIDLE(ATTACHMENT LINES)

MATERIAL		NYLON
SUPPLIER	NAME	KOLON INDUSTRIAL CO.
	ADDRESS	45 MU KYO DONG JUNG – GU, SEOUL, KOREA
WEIGHT(GR/M)		7.2
BREAKING STRENGTH (kg)		110
WIDTH(mm)		13

THREAD

MATERIAL		HIGH TENACITY POLYESTER YARN
SUPPLIER	NAME	AMMANN & SÖHNE GMBH & CO.
	ADDRESS	Postfach 9 Hauptstrasse 1 D-74357 Bönningheim Germany
DENIER		150D/3
BREAKING STRENGTH (kg)		2.9
WEIGHT(GR/M)		0.05