ACRO d.o.o. Sarajevo

NOVA Paragliders Authorized Service Center No: 74

Hasana Merdžanovića bb, 71320 Vogošća, Bosnia and Herzegovina
info@extremesport.ba www.extremesport.ba

INTERNAL PARAGLIDER SERVICE PROTOCOL	SERVICE CHECK	FULL	TRIM	TRIM+POR.
		☒ C...	☐ C...	☐ Ch...

1. INFORMATION

Manufacturer:	Niviuk	**Model:**	Takoo
Size:	42	**Serial No.:**	D110Z57
Type certificate number:	EN B, LTF B	**Date of last check:**	
Date of first flight:		**Construction date:**	
Customer name:	[redacted]		
Address:	[redacted]		
Phone:	[redacted]		
e-mail:	[redacted]		

TEST PROTOCOL

5. LIKE NEW
4. VERY GOOD
3. GOOD CONDITION
2. WELL USED
1. HEAVILY USED
0.! NO LONGER AIRWORTHY

2. POROSITY RESULTS

Measured with:	Hello Porosiometer				
Condition:	**Temperature [°C]:**	22	**Humidity**	43%	
	Stabilo L	**Left**	**Top**	**Right**	**Stabilo R**
Upper surface:	**+200**	**+200**	**751**	**+200**	**200**
Average:	**200**				
Sail result from 0-5:	**5. LIKE NEW**				

EVALUATION OF MEASUREMENTS
- Excellent – Good > 200 sec
- Medium – 70–200 sec
- Weak – 25–70 sec
- Inappropriate < 18 sec

3. VISUAL CHECK OF CANOPY

3.1. Sail:	Results +	Results -	Description of failure and suggested repairs:
Upper surface:	☒	☐	
Betsometer test:	☒	☐	
Lower surface:	☒	☐	
Profiles:	☒	☐	
Line flares:	☒	☐	
Leading edge:	☒	☐	
Trailing edge:	☒	☐	
Crossports:	☒	☐	
3.2. Lines:			
Seams:	☒	☐	
Abrasion spots:	☒	☐	
Core withdrawals:	☒	☐	
3.3 Visual checks of connectionparts and canopy			
Susp. line screw locks:	☒	☐	
Risers:	☒	☐	
Firmness of canopy:	☒	☐	
Meets the criteria:	**YES**		

4. Length measurement:

	A	B	C	D	E	Brakes	Note

Average deviation ΔR [mm]	2	2	-1	0	0	0	
Average deviation ΔL [mm]	0	1	3	0	0	4	
Average deviation Simetry [mm]	-1	-1	4	0	0	4	
Meets the criteria:	**YES**						

*Note! Trim report of delivered condition and new trim tuning shown in two different tables

5. Examination of the lines:

Firmness of lines:	**Line name**	**Specified length**	**Actual length**	**Length difference**	**New line length**	**Breake at daN**	**OK - NOT OK**
Main	3B1-R		4935	4935	4930	256	**OK**
Main							
Main	3A2-R		4918	4918	4915	213	**OK**
Meets the criteria:	**YES**						

Damaged lines:	**Line name**	**Specified length**	**Actual length**	**Length difference**	**New line length**	**Description of failure**
	3B1-L		4930	4930	4930	Sock ripped
				0		
				0		
				0		
				0		
				0		
Meets the criteria:	**YES**					

7. Check flight necessary?			No
Completed:	☐	**Not completed:**	☒
Napomena			
Meets the criteria:	**YES**		

8. Final assessment, Sail, Lines, condition:

Paraglider condion is:	**3. GOOD CONDITION**
Legend:	**Note**
5. LIKE NEW **4. VERY GOOD** **3. GOOD CONDITION** **2. WELL USED** **1. HEAVILY USED** **0.! NO LONGER AIRWORTHY**	Even porosity test was excelent, on the glider down surface noticed two small patches repaired with ripstop and one bigger aproximatelly 60 cm near the left stabilo on down surface. Booth damages are repaired with ripstop and not affecting flight caracteristic. Also, line lengts are corrected but not perfectly. Final conclusion and final grade is 3/5.

Notes:			
Check date:	**07.12.2025.**	**Next check:**	07.12.2027.
Organization:		**Check and repairs made by:**	
Acro d.o.o. Sarajevo		Mirvad Zenuni	
Address:			**Protocol Number:**
Hasana Merdžanovica 18, 71320 Vogošća, Bosnia and Herzegovina			A2025012251
Stamp and signature:			*If the glider passes the test, a stamp with the data, check dates and protocol number, will be placed on the sail of the paraglider*

LIFESTYLE CHOICE

OFFICIAL NOVA CHECK CENTER: NUMBER 74.
CHECKER NAME MIRVAD ZENUNI.

Manufacturer:	Niviuk	Model:	Takoo
Owner:	[redacted]	Serial No:	D110Z57
Check Date:	07.12.2025.	Date of last check:	12/30/1899
Brake Offset:		Canopy Offset:	
Tolerance:	10	New Zero:	13

Factory Riser & Quicklink Lengths	A - Riser	A² - Riser	B - Riser	B² - Riser	C - Riser	D - Riser	E - Riser
	-300	-300	-300	-300	-300	-300	
Actual Riser Length - R							
Actual Riser Length - L							

center Hasana Merdzanovica 18, 71320 Vogosca, Bosnia and Herzegovina. GSM/Viber/WhatsApp +38762990900, Email: info@extremesport.ba

INTERNAL PARAGLIDERS SERVICE PROTOCOL

FULL SERVICE X | **TRIM TUNING + POROSITY** | **TRIM TUNING**

DELIVERED CONDITION

CHECK DATE: 07.12.2025.

A-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,911.0	8,906.5	8,595.0	29	25	5
2	8,826.9	8,823.3	8,510.0	30	26	4
3	8,811.5	8,809.1	8,495.0	30	27	2
4	8,745.7	8,750.9	8,430.0	29	34	-5
5	8,650.1	8,655.5	8,335.0	28	34	-5
6	8,631.7	8,630.9	8,310.0	35	34	1
7	8,532.3	8,543.5	8,245.0	0	12	-11
8	8,431.7	8,441.5	8,145.0	0	10	-10
9	8,417.3	8,417.7	8,120.0	10	11	0
10	8,313.3	8,315.8	8,025.0	1	4	-3
11	8,205.1	8,212.2	7,920.0	-2	5	-7
12	8,102.8	8,113.0	7,825.0	-9	1	-10
13	7,859.5	7,853.6	7,525.0	48	42	6
14						
15						
16						
A17						
S1						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			18	20	-3

A-LINE GROUP AVERAGES				
	A1-L	29	26	A1-R
	A2-L	31	34	A2-R
	A3-L	0	7	3335.2
	AST-L			AST-R

B-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,849.6	8,853.3	8,530.0	33	36	-4
2	8,764.4	8,769.4	8,445.0	32	37	-5
3	8,752.9	8,756.5	8,435.0	31	35	-4
4	8,700.0	8,701.6	8,380.0	33	35	-2
5	8,617.4	8,620.0	8,295.0	35	38	-3
6	8,602.7	8,604.2	8,280.0	36	37	-2
7	8,533.1	8,532.1	8,225.0	21	20	1
8	8,436.3	8,435.9	8,130.0	19	19	0
9	8,423.8	8,420.3	8,115.0	22	18	4
10	8,324.1	8,321.7	8,025.0	12	10	2
11	8,223.8	8,225.7	7,925.0	12	14	-2
12	8,130.9	8,129.1	7,835.0	9	7	2
13	7,857.3	7,857.7	7,525.0	45	46	0
14						
15						
16						
B17						
S2						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			26	27	-1

B-LINE GROUP AVERAGES				
	B1-L	32	36	B1-R
	B2-L	35	37	B2-R
	B3-L	16	15	B3-R
	BST-L	46	43	BST-R

C-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,879.2	8,871.6	8,555.0	37	30	8
2	8,795.6	8,787.9	8,475.0	34	26	8
3	8,780.3	8,772.8	8,460.0	33	26	8
4	8,727.7	8,725.7	8,410.0	31	29	2
5	8,644.6	8,642.9	8,330.0	28	26	2
6	8,634.0	8,632.1	8,320.0	27	25	2
7	8,560.5	8,577.0	8,265.0	9	25	-17
8	8,469.7	8,482.3	8,170.0	13	25	-13
9	8,445.4	8,462.5	8,150.0	8	26	-17
10	8,349.2	8,365.6	8,060.0	2	19	-16
11	8,254.6	8,267.1	7,965.0	3	15	-13
0	8,156.6	8,161.6	7,865.0	5	10	-5
13	7,872.9	7,870.2	7,540.0	46	43	3
14						
15						
16						
S3						
S4						
18						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			21	25	-4

C-LINE GROUP AVERAGES				
	C1-L	35	27	C1-R
	C2-L	28	27	C2-R
	C3-L	7	20	C3-R
	CST-L			CST-R

D-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	9,032.3	9,031.5	8,710.0	35	35	1
2	8,930.3	8,929.8	8,610.0	33	33	1
3	8,930.6	8,932.6	8,615.0	29	31	-2
4	8,878.7	8,865.9	8,555.0	37	24	13
5	8,780.0	8,766.5	8,455.0	38	25	14
6	8,791.1	8,776.8	8,465.0	39	25	14
7	8,676.8	8,682.8	8,380.0	10	16	-6
8	8,573.5	8,579.0	8,275.0	12	17	-6
9	8,539.4	8,544.1	8,245.0	7	12	-5
10	8,436.1	8,443.1	8,145.0	4	11	-7
11	8,338.2	8,348.5	8,045.0	6	17	-10
12	8,211.4	8,215.8	7,920.0	4	9	-4
13	7,908.6	7,904.6	7,575.0	47	43	4
14						
15						
16						
17						
S4						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø					

D-LINE GROUP AVERAGES				
	D1-L	32	33	D1-R
	D2-L	39	25	D2-R
	D3-L	9	14	D3-R
	DST-L			DST-R

E-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	9,017.8	9,020.1	8,700.0	31	33	-2
2	8,859.0	8,845.1	8,530.0	42	28	14
3	8,633.8	8,632.9	8,330.0	17	16	1
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
S4						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø					

E-LINE GROUP AVERAGES				
	E1-L			E1-R
	E2-L			E2-R
	E3-L			E3-R

Brakes

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	9,499.7	9,491.8	9,600.0	-100	-108	8
2	9,209.9	9,200.7	9,310.0	-100	-109	9
3	8,965.4	8,951.9	9,065.0	-100	-113	14
4	8,871.4	8,860.6	8,970.0	-99	-109	11
5	8,685.9	8,681.3	8,780.0	-94	-99	5
6	8,537.0	8,534.0	8,630.0	-93	-96	3
7	8,474.6	8,470.6	8,570.0	-95	-99	4
8	8,515.9	8,512.3	8,610.0	-94	-98	4
9	8,372.5	8,368.5	8,464.0	-92	-96	4
10	8,297.8	8,294.1	8,390.0	-92	-96	4
11	8,209.1	8,202.0	8,295.0	-86	-93	7
12	8,183.9	8,177.3	8,270.0	-86	-93	7
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			-94	-101	6

F-LINE GROUP AVERAGES				
	F1-L	-100	-110	F1-R
	F2-L	-94	-98	F2-R
	F3-L	-89	-94	F3-R
	F4-L			F4-L

NOTES:

NOTES:

EVALUATION - NEW TRIM TUNING

Checker name: Mirvad Zenuni

NEXT CHECK DATE: 07.12.2027.

A-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,879.9	8,876.2	8,595.0	-2	-6	4
2	8,796.5	8,790.8	8,510.0	-1	-6	6
3	8,778.4	8,776.1	8,495.0	-4	-6	2
4	8,714.5	8,714.2	8,430.0	-3	-3	0
5	8,620.1	8,622.0	8,335.0	-2	0	-2
6	8,603.5	8,597.3	8,310.0	7	0	6
7	8,532.3	8,542.0	8,245.0	0	10	-10
8	8,431.7	8,439.6	8,145.0	0	8	-8
9	8,417.3	8,415.8	8,120.0	10	9	2
10	8,313.3	8,315.9	8,025.0	1	4	-3
11	8,205.1	8,210.8	7,920.0	-2	4	-6
12	8,102.8	8,111.2	7,825.0	-9	-1	-8
13	7,819.5	7,822.4	7,525.0	8	10	-3
14						
15						
16						
A17						
S1						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			0	2	-1

A-LINE GROUP AVERAGES				
	A1-L	-2	-6	A1-R
	A2-L	1	-1	A2-R
	A3-L	0	6	3335.2
	AST-L			AST-R

B-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,812.8	8,812.3	8,530.0	-4	-5	1
2	8,730.3	8,730.5	8,445.0	-2	-2	0
3	8,717.7	8,714.3	8,435.0	-4	-8	3
4	8,668.0	8,672.5	8,380.0	1	6	-5
5	8,587.8	8,589.3	8,295.0	6	7	-2
6	8,569.8	8,573.2	8,280.0	3	6	-3
7	8,516.4	8,518.8	8,225.0	4	7	-2
8	8,422.6	8,419.8	8,130.0	6	3	3
9	8,408.6	8,408.5	8,115.0	7	7	0
10	8,310.0	8,311.0	8,025.0	-2	-1	-1
11	8,211.2	8,211.3	7,925.0	-1	-1	0
12	8,118.7	8,115.7	7,835.0	-3	-6	3
13	7,820.9	7,825.3	7,525.0	9	13	-4
14						
15						
16						
B17						
S2						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			1	2	-1

B-LINE GROUP AVERAGES				
	B1-L	-3	-5	B1-R
	B2-L	3	6	B2-R
	B3-L	2	1	B3-R
	BST-L	7	11	BST-R

C-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,846.9	8,836.0	8,555.0	5	-6	11
2	8,763.1	8,753.4	8,475.0	1	-9	10
3	8,746.7	8,739.7	8,460.0	0	-7	7
4	8,696.9	8,700.5	8,410.0	0	4	-4
5	8,612.0	8,615.4	8,330.0	-5	-2	-3
6	8,604.1	8,603.4	8,320.0	-3	-4	1
7	8,560.5	8,557.4	8,265.0	9	5	3
8	8,469.7	8,461.7	8,170.0	13	5	8
9	8,445.4	8,441.4	8,150.0	8	4	4
10	8,349.2	8,345.5	8,060.0	2	-2	4
11	8,254.6	8,247.7	7,965.0	3	-4	7
12	8,156.6	8,144.6	7,865.0	5	-7	12
0	8,826.7	8,838.0	7,540.0	0	11	-11
14						
15						
16						
S3						
S4						
18						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			3	-1	4

C-LINE GROUP AVERAGES				
	C1-L	2	-7	C1-R
	C2-L	-3	-1	C2-R
	C3-L	7	0	C3-R
	CST-L			CST-R

D-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	9,001.4	9,002.9	8,710.0	4	6	-2
2	8,897.9	8,903.4	8,610.0	1	6	-6
3	8,900.3	8,904.9	8,615.0	-2	3	-5
4	8,851.9	8,850.3	8,555.0	10	8	2
5	8,752.0	8,750.9	8,455.0	10	9	1
6	8,762.8	8,761.1	8,465.0	11	9	2
7	8,676.7	8,671.1	8,380.0	10	4	6
8	8,572.9	8,566.0	8,275.0	11	4	7
9	8,538.7	8,533.0	8,245.0	7	1	6
10	8,437.9	8,431.3	8,145.0	6	-1	7
11	8,337.5	8,336.5	8,045.0	6	5	1
12	8,205.6	8,203.3	7,920.0	-1	-4	2
13	7,872.2	7,872.3	7,575.0	10	10	0
14						
15						
16						
17						
S4						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø					

D-LINE GROUP AVERAGES				
	D1-L	1	5	D1-R
	D2-L	12	9	D2-R
	D3-L	7	2	D3-R
	DST-L			DST-R

E-Row

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	8,989.3	8,993.7	8,700.0	2	7	-4
2	8,832.7	8,828.6	8,530.0	16	12	4
3	8,631.8	8,622.4	8,330.0	15	5	9
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
S4						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø					

E-LINE GROUP AVERAGES				
	E1-L			E1-R
	E2-L			E2-R
	E3-L			E3-R

Brakes

#	L	R	SPEC	Δ L	Δ R	Δ Sym
1	9,598.1	9,589.3	9,600.0	-2	-11	9
2	9,308.5	9,299.5	9,310.0	-2	-11	9
3	9,063.5	9,055.7	9,065.0	-2	-9	8
4	8,970.3	8,963.9	8,970.0	0	-6	6
5	8,785.9	8,781.8	8,780.0	6	2	4
6	8,635.8	8,633.0	8,630.0	6	3	3
7	8,571.6	8,571.6	8,570.0	2	2	0
8	8,612.4	8,612.1	8,610.0	2	2	0
9	8,470.8	8,467.7	8,464.0	7	4	3
10	8,396.0	8,393.8	8,390.0	6	4	2
11	8,307.2	8,303.1	8,295.0	12	8	4
12	8,280.4	8,278.9	8,270.0	10	9	2
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
	Average Deviation Ø			4	0	4

F-LINE GROUP AVERAGES				
	F1-L	-1	-9	F1-R
	F2-L	4	2	F2-R
	F3-L	9	6	F3-R
	F4-L			F4-L

NOTES:

During the line inspection noticed damage on the lines shown on first page where the new lines made with corrected dimension. Trim tuning done by placing of the loops on a carabiners shown on the page two.

NOVA Paragliders Authorized Service Center No: 74.

Protocol Number:

A2025012251

Certified NOVA Paragliders Inspector: Mirvad Zenuni

Marked with yellow means changed line loop

Marked with blue means new line replaced

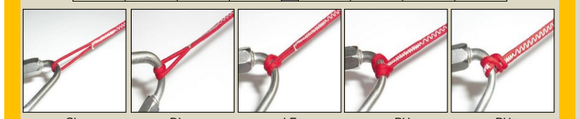
Line name	Specified length	Actual length	Length difference	New line length	Breake at daN	OK - NOT OK
3B1-R	0	4935	4935	4930	256	OK
0	0	0	0	0	0	0
3A2-R	0	4918	4918	4915	213	OK

Acro d.o.o. Sarajevo - Paragliding equipment CHECK & FIX center

Hasana Merdzanovica 18, 71320 Vogosca, Bosnia and Herzegovina. GSM/Viber/WhatsApp +38762990900, Email: info@extremesport.ba

MAILLON LOOP TABLE - DELIVERED CONDITION

	Left Side				Right Side				
	S	3	2	1	1	2	3	S	
A		SL	SL	SL	SL	SL	SL		A
B	SL	SL	SL	SL	SL	SL	SL	SL	B
C		SL	SL	SL	SL	SL	SL		C
D		SL	SL	SL	SL	SL	SL		D

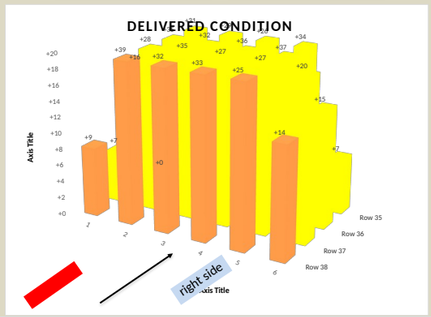


SL Single Loop | DL Double Loop | LF Lark's Foot (AS) | PH Pile Hitch (AS+) | PH+ Pile Hitch + (AS++)

Please review the glider's rigging diagram to see where the adjustments took place…

CHART DATA TABLE - DELIVERED CONDITION

	Left Side				Right Side				
	S	3	2	1	1	2	3	S	
A	+0	+0	+31	+29	+26	+34	+7	+0	A
B	+46	+16	+35	+32	+36	+37	+15	+43	B
C	+0	+7	+28	+35	+27	+27	+20	+0	C
D	+0	+9	+39	+32	+33	+25	+14	+0	D
Brakes		-89	-94	-100	-110	-98	-94		Brakes
Pitch		-6	+2	-5	-1	+7	-13		Pitch



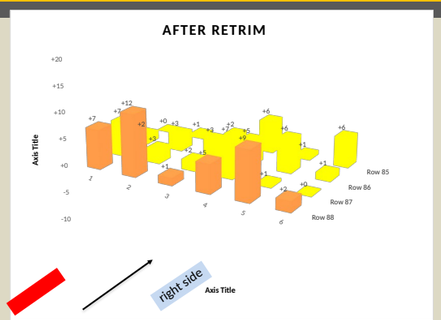


CHART DATA TABLE - NEW TRIM TUNING

	Left Side				Right Side				
	S	3	2	1	1	2	3	S	
A	+0	+0	+1	-2	-6	-1	+6	+0	A
B	+7	+2	+3	-3	-5	+6	+1	+11	B
C	+0	+7	-3	+2	-7	-1	+0	+0	C
D	+0	+7	+12	+1	+5	+9	+2	+0	D
Brakes		+9	+4	-1	-9	+2	+6		Brakes
Pitch		-6	+3	-4	+1	-0	+5		Pitch

CHART DATA TABLE - NEW TRIM TUNING

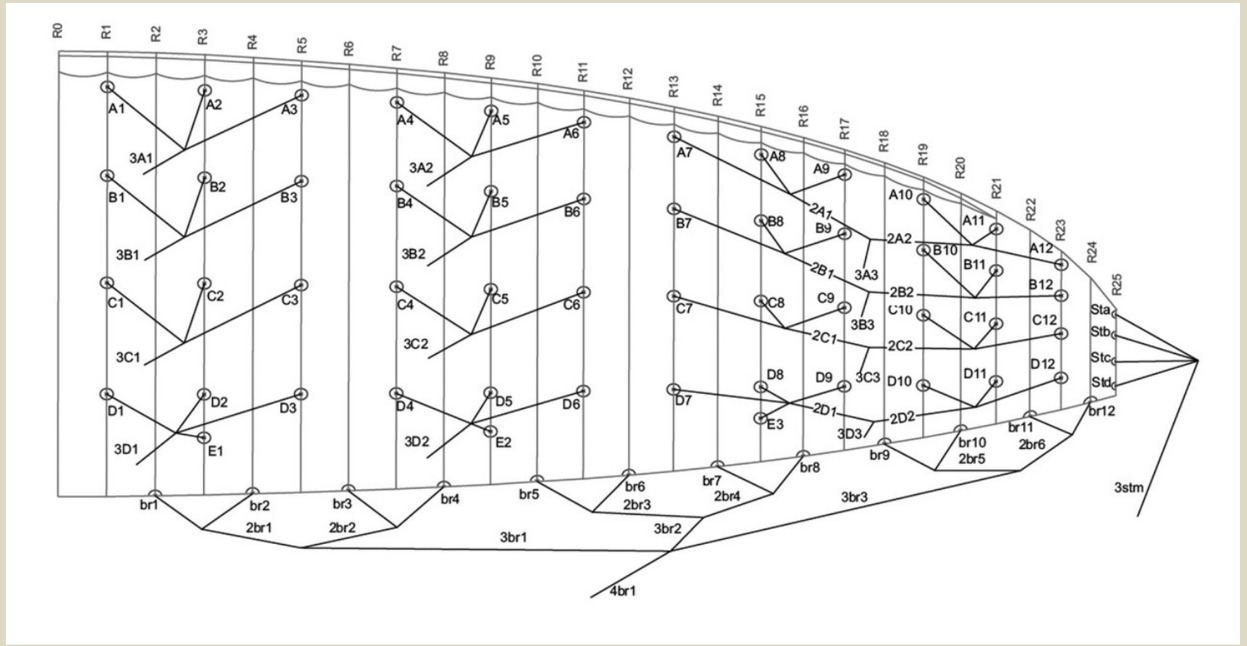
Please review the glider's rigging diagram to see where the adjustments took place…

MAILLON LOOP TABLE - NEW TRIM TUNING

	Left Side				Right Side				
	S	3	2	1	1	2	3	S	
A		SL	AS+	AS+	AS+	AS+	SL		A
B	AS+	DL	AS+	AS+	AS+	AS+	DL	AS+	B
C		SL	AS+	AS+	AS+	AS+	AS		C
D		SL	AS+	AS+	AS+	AS	DL		D



SL Single Loop | DL Double Loop | LF Lark's Foot (AS) | PH Pile Hitch (AS+) | PH+ Pile Hitch + (AS++)



PARAGLIDER SERVICE ACRO D.O.O.

Paragliding equipment CHECK & FIX center

INTERNAL PARAGLIDER SERVICE PROTOCOL -- TRIM TUNING and POROSITY TEST

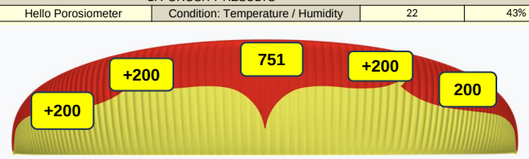
1. INFORMATION

Manufacturer:	Niviuk	Model:	Takoo
Size:	42	Serial No.:	D110Z57
Type certificate number:	EN B, LTF B	Date of last check:	0
Date of first flight:	0	Construction date:	0
Customer name:			
Address:			
Phone:			
e-mail:			

1. POROSITY RESULTS

Measured with:	Hello Porosiometer	Condition: Temperature / Humidity	22	43%

EVALUATION OF MEASUREMENTS
- Excellent – Good > 200 sec
- Medium – 70–200 sec
- Weak – 25–70 sec
- Inappropriate < 18 sec



AVERAGE POROSITY IN SECONDS.:

200

Porosity measured at 5 points on the top surface, as recommended by the protocol for checking NOVA paragliders. The sum of the values is added up to 200 seconds. If any point shows more than 200 seconds, that point is counted as 200 seconds.

POROSITY RESULTS

3

EVALUATION OF MEASUREMENTS

- Excellent – Good > 200 sec
- Medium – 70–200 sec
- Weak – 25–70 sec
- Inappropriate < 18 sec