Summary of line measure results

Job number	B18793
Checked by	James Summe
Date	28/01/2021

Manufacturer	PHI
Glider	Maestro
Size	23
Serial	000-896-D

Your glider

Your wing was already flying within the manufactures trimmed specification, therefore no adjustments have been made to the suspension lines.

The LHS brake has been lengthened by 42mm to match the length of the RHS brake and bring both brakes back into specification.

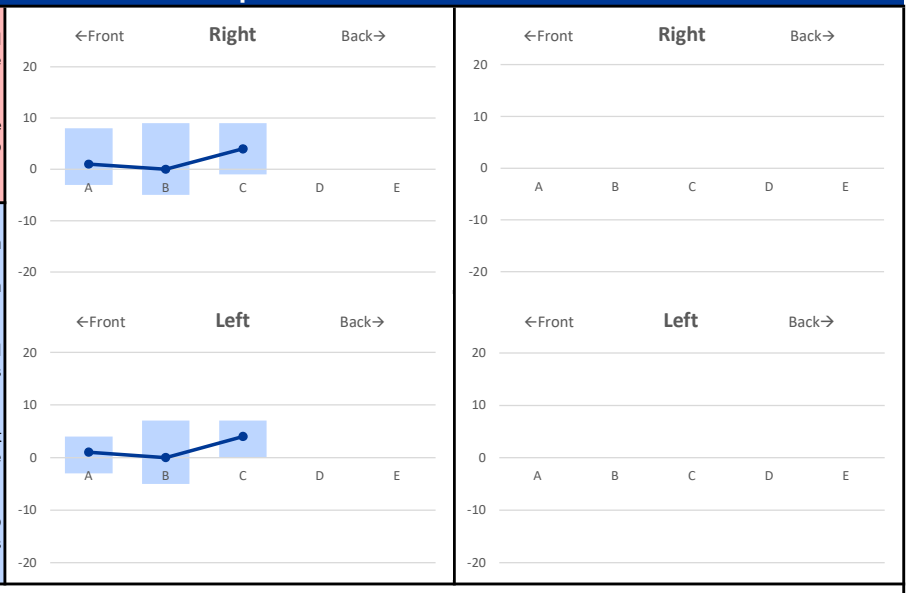
Explanation of the graphs
The bars on the graphs summarise the range of variances from specification. The top of the bar corresponds to the maximum, and the bottom to the minimum. The scale shows from 20mm long to -20mm short. Shorter bars are better.

Manufacturers stipulate a tolerance of ±10mm against specified lengths. Any variance in excess of this is shown in red in the bars on the right.

In each graph, the leftmost bar relates to the first line tab row at the front of the wing, and the last relates to the one closest to the trailing edge.

The solid line shows the average variance of all lines in that tab row, and shows how the profile of the wing from front to back has been affected by the variances. A flatter line is better.

Overall profile



Summary of loops on maillons

All lines have been measured using a laser measure and compared to the manufacturer's line length specification. Any anomalies outside tolerance (±10mm) are normally addressed by changing the loops at the maillons. Exceptionally loops in the upper cascade can be changed or lines replaced, either of which would be noted in the report above. The tables below show the maillon loops before and after retrimming, and any required trim changes made are highlighted. The pictures below the tables show the different types of loop used.

Before	Left				Right			
	4	3	2	1	1	2	3	4
A			SL	SL	SL	SL		
B			SL	SL	SL	SL		
C			SL	SL	SL	SL		
D								
E								
S				SL	SL			

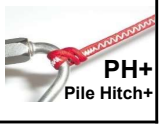
After	Left				Right			
	4	3	2	1	1	2	3	4
A			SL	SL	SL	SL		
B			SL	SL	SL	SL		
C			SL	SL	SL	SL		
D								
E								
S				SL	SL			

SL
Single Loop

DL
Double Loop

LF
Larks Foot

PH
Pile Hitch



PH+
Pile Hitch+

Specification and summary of variances

Lineset overall vs specification	-26mm	Brakes overall vs lineset	Left	Right	Adjusted?
			-42mm	0mm	Yes

	Specified line lengths						Left variances						Right variances					
	A	B	C	D	E	Brakes	A	B	C	D	E	Brakes	A	B	C	D	E	Brakes
1	7389	7304	7359			8043	1	-5	7			-3	1	-5	9			-4
2	7219	7137	7329			7734	4	-5	6			0	0	-5	4			-4
3	7232	7151	7202			7655	3	-4	7			0	0	-3	4			-3
4	7189	7111	7205			7602	-3	-4	1			-1	-1	-5	6			1
5	7129	7054	7242			7653	1	-2	2			0	3	-3	8			2
6	7243	7169	7269			7507	-2	-3	4			-2	-1	-5	2			2
7	7088	7020	7101			7373	-3	-2	5			2	-3	-3	3			5
8	6965	6905	7049			7244	1	3	2			4	-1	3	2			3
9	6979	6921	6986			7179	-2	4	3			7	1	2	-1			4
10	6830	6779	6827			7154	1	7	2			-1	0	9	2			-2
11	6742	6702	6791			7119	0	3	0			-2	-2	3	2			-5
12	6747	6703	6744				1	4	5				-1	6	1			
13	6400	6420					4	2					8	6				
14	6268	6361	6478				2	1	4				4	1	6			
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