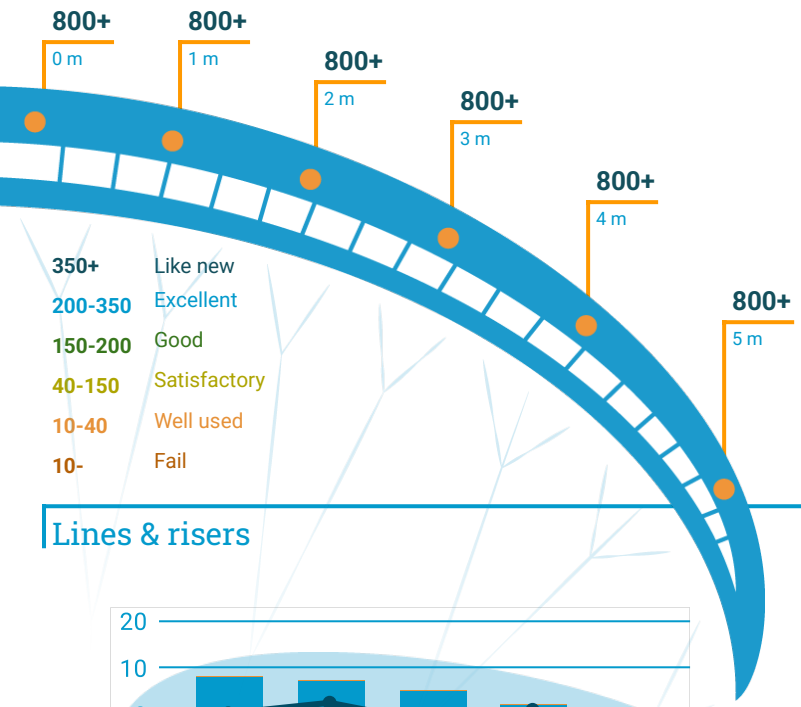
Paraglider inspection & service report

Paraglider	**Gin Camino 2 M**	Date	**6. 11. 2024**
Year	**3/2024**	Rec nr	**24-P221**
Serial no	**BN02-Q120P0011P**		

Canopy



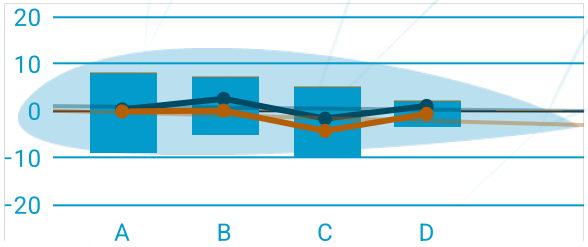
350+	Like new
200-350	Excellent
150-200	Good
40-150	Satisfactory
10-40	Well used
10-	Fail

Porosity check of paraglider canopy fabric

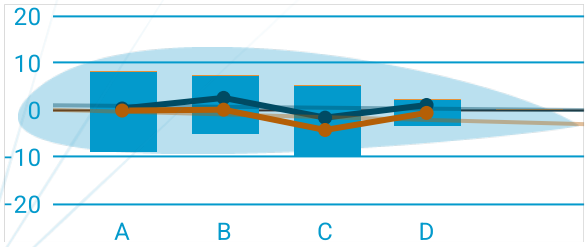
is the standard measurement of time it takes for 0,25 l of air to flow through 38,5 cm2 of canopy surface under a pressure of 10 mbar. This measurement essentially shows how efficient the canopy is in retaining the necessary inner air pressure to fly. The measurement is performed with standard JDC calibrated porosimeter HELLO POROZIT N on 5-6 points of the upper surface of the left half of the canopy, 20-30 cm from the leading edge at gaps of one meter. The porosity of canopy textile is a good indicator of actual paraglider wear.

Paraglider age:	0
Porosity check	100%
Visual evaluation (1-10):	10
Repairs:	

Lines & risers



Deviation of measured line lenghts from the factory standard

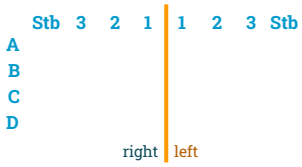


Deviation of measured line lenghts after corrections

Line measurement

Every line is loaded with 5 daN weight and laser measured. The graph on the left shows the deviation (mm) of line lengths of individual lines (A, B, C, D) from the factory-prescribed standard lenghts in cross section. The columns cover all maximum deviations of individual cords along the lines, the connected dots (left wing half in orange, right in blue) show the average deviations, and the trend lines show the orientation of the angle of attack of the left and right half of the wing Due to shrinking, the measured absolute lengths of lines are generally shorter than the factory standard, so for the analysis of the lengths we add the "equalizing length" which simply shows how much the set of lines has shrunk on average. Line length corrections are therefore made in a relative frame conditioned by a deviation of + -10 mm or by the influence these deviations have on the angle of attack and symmetry.

Lines lenghts corrections (mm)



Equalizing lenght:	0 mm
Visual evaluation (1-10):	10
Repairs:	

Paraglider condition evaluation

Remarks, tips & warnings

Paraglider general condition evaluation

Shelf life of paraglider is limited; materials and construction deteriorate over use and time. Evaluating at which point between new and worn out the paraglider is becomes increasingly important safety aspect. General condition evaluation of the paraglider consists of five grades (2 visual assesment grades, 3 measured data evaluations). Good condition evaluation grades are reserved for carefully used paragliders, which thoroughly avoid moisure, heat & UV radiation exposure.

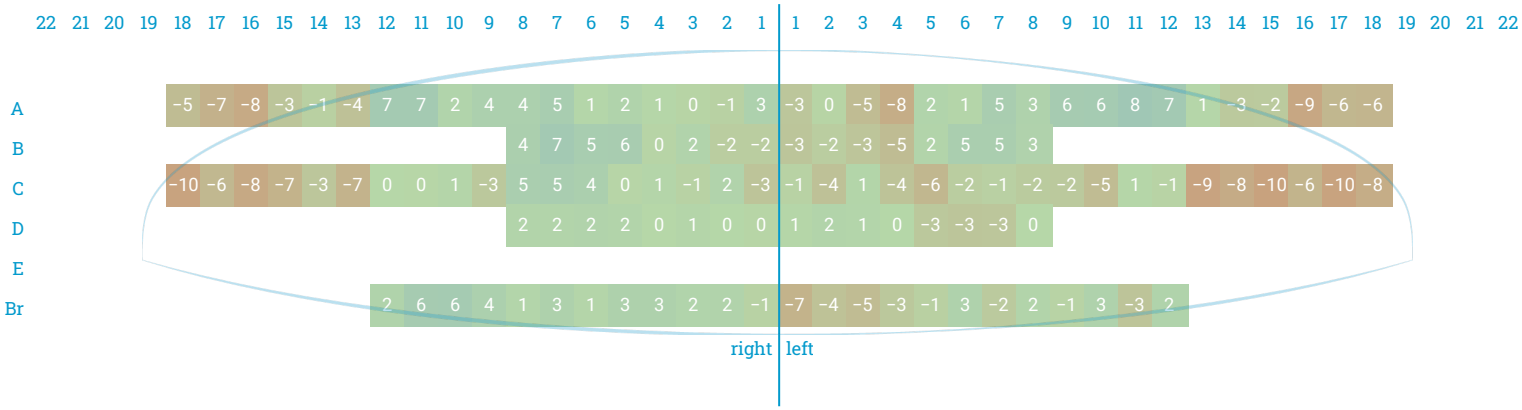
Condition evaluation: 99%

Line lenghts deviations

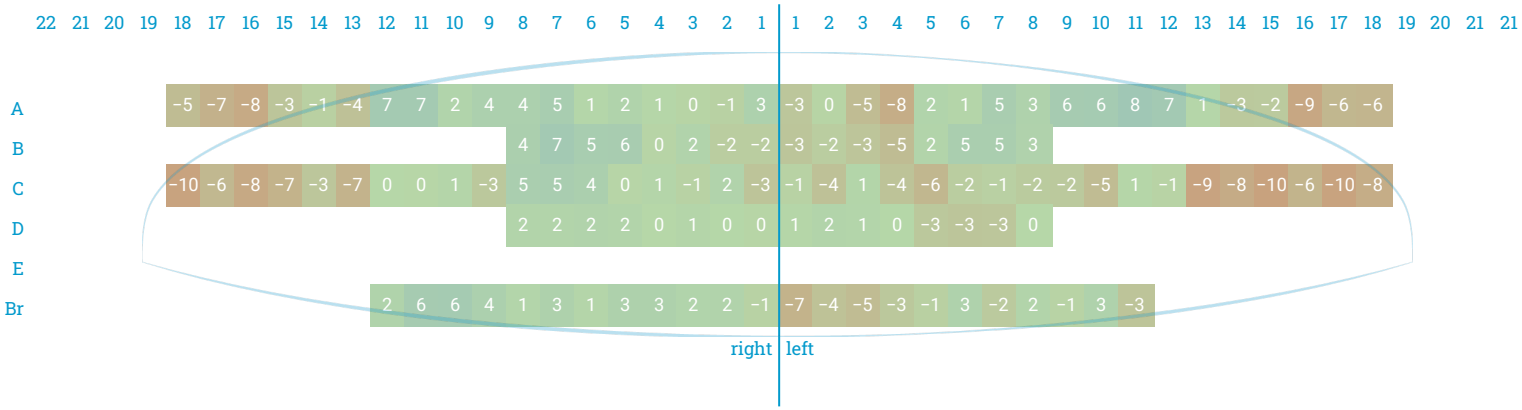
Paraglider trim tuning

Similar as musical instruments paraglider needs occasional tuning for harmonious and impecable performance Besides breaking paraglider lines can also change in lenght. High loads can cause temporary extension, but on long term lines are shrinking. Line shrinkage depends on material, exposure to external factors (especially high temperatures and humidity) and the frequency and intensity of loads. Lines that carry relatively less weight shrink faster and more; these are usually placed on C and D lines of the paraglider which eventually leads to an increase in the angle of attack of the wing and deterioration of the paraglider's flight performance (lower speed, difficult takeoff, stall tendency).

For basic line trim tuning we apply tuning loops at bottom attachment points. Since the lengthening of the lines is possible only by releasing any pre-installed triming loops or by replacing the short lines, the basic trimming determines and shortens the lines that are too long in the relative frame with respect to the angle of attack or symmetry of the glider. If possible, trimming reduces the angle of attack slightly beyond the frame alignment to anticipate the shrinkage of the lines in the period up to the next check. The visualisation below shows all deviations (mm) of the measured line lengths from the factory standard lenghts. Blue / positive values indicate too long lines and red / negative values indicate too short.



Deviation of measured line lenghts from the factory standard (mm)



Deviation of measured line lenghts after corrections (mm)

Warning: After any paraglider service it is higly advisable to make focused pre-flight check!

Safety is our main concern and although we pay as much attention as possible to prevent possible human errors, sometimes even the careful eye can miss. For this you are kindly asked to make your pre-flight check a bit more focused - especially on parts that were repaired (see the service report). In case of line trimming, pay special attention to glider take-off and in-flight performance. If you notice any abnormality or deterioration of flight performance, stop using the paraglider immediately and let us know.