

# Mainsail: 7000513 Carl-1 MainsailV1.des

Design Info  
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Design File:  
\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2023 Order\Need to be Confirmed\7000513 Carl 比赛

Initial Design Date: 22/9/2023  
Boat:

Comments:

Client:

Design Data  
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Main

Measurements

Luff geodesic:	14.602m
Leech geodesic:	15.000m
Foot geodesic:	4.350m
Head geodesic:	0.135m
Upper width (MUW):	0.829m
Three-quarter width (MTW):	1.502m
Half width (MHW):	2.660m
Quarter width (MQW):	3.605m
Foot median:	14.814m
ORC Mainsail area:	36.558m <sup>2</sup>
Surface area:	37.292m <sup>2</sup>
Clew height:	0.236m
Mast rake:	0.000m

Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.285m	0.214m	76.834?	11.671m	11.971m	Full
60.000%	2.271m	0.301m	76.834?	8.752m	8.978m	Full
40.000%	3.093m	0.266m	76.834?	5.833m	5.985m	Full
20.000%	3.781m	0.153m	76.834?	2.916m	2.993m	Full

Reefing Points

1, Luff: 1.970m ; Leech: 2.010m ; Offset: 0.000m ; Number Eyelets: 3  
2, Luff: 4.013m ; Leech: 4.093m ; Offset: 0.000m ; Number Eyelets: 3  
3, Luff: 6.348m ; Leech: 6.475m ; Offset: 0.000m ; Number Eyelets: 2

Draft Stripes

1, Luff: 3.648m ; Leech: 3.523m ;  
2, Luff: 7.297m ; Leech: 7.303m ;  
3, Luff: 10.948m ; Leech: 11.113m ;

Luff Slides

1, Position: 1.457m  
2, Position: 4.525m  
3, Position: 7.293m  
4, Position: 10.214m  
5, Position: 13.138m

Luff Curve

		Fanned Luff (@ 5.00% [0.216m])	Before BSeam
14.601m,	0.000m	100% (14.602m) :	0.000m
12.782m,	-0.034m	90% (13.142m) :	0.051m
10.951m,	-0.058m	80% (11.681m) :	0.095m
9.116m,	-0.069m	70% (10.222m) :	0.124m
7.301m,	-0.070m	60% (8.761m) :	0.140m
5.441m,	-0.065m	50% (7.301m) :	0.145m
3.650m,	-0.052m	40% (5.841m) :	0.142m
1.820m,	-0.029m	30% (4.381m) :	0.125m
0.000m,	0.000m	20% (2.920m) :	0.095m
		10% (1.460m) :	0.050m
		0% (0.000m) :	0.000m

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## Seam Allowances

Zone:	Split	Radial	Cross
Zone: 1/a	0.030m	0.015m	0.038m
Zone: 1/b	0.030m	0.015m	0.038m
Zone: 2/a	0.030m	0.015m	0.038m
Zone: 2/b	0.030m	0.015m	0.038m
Zone: 3/a	0.030m	0.015m	0.038m
Zone: 3/b	0.030m	0.015m	0.038m
Zone: 4	0.030m	0.015m	0.038m

## Edge Excesses

Sail:	Luff	Leech	Foot
Sail:	0.000m	0.000m	0.000m

## Total Seam Lengths (m)

Horizontal	8.11
Radial/Vertical	113.34
Bi-Radial Split	11.24

## Materials

Material	Area (m <sup>2</sup> )	Panels
Material 1	37.32	1\1,1\2,1\3,1\4,1\5 1\6,1\7,1\8,1\9,1\10 1\11,1b\1,1b\2,1b\3,1b\4 1b\5,1b\6,1b\7,1b\8,1b\9 1b\10,1b\11,2\1,2\2,2\3 2\4,2b\1,2b\2,2b\3,2b\4 3\1,3\2,3\3,3b\1,3b\2 3b\3,4\1,4\2,4\3,4\4 4\5

