

# Mainsail: 8000615 Caroline-1 Hitchiker 48 Mainsail.des

Design Info  
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Design File:  
\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2024 Orders\Need to be Confirmed\8000615 Caroline

Initial Design Date: 28/6/2024  
Boat:  
Hitchiker 48  
Client:

Comments:

Design Data  
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Main

Measurements

Luff geodesic: 12.582m  
Leech geodesic: 13.396m  
Foot geodesic: 5.423m  
Head geodesic: 0.135m  
Upper width (MUW): 1.424m  
Three-quarter width (MTW): 2.605m  
Half width (MHW): 4.104m  
Quarter width (MQW): 4.925m  
Foot median: 12.874m  
ORC Mainsail area: 45.419m?  
Surface area: 48.356m?  
Clew height: 0.273m  
Mast rake: 0.450m

Battens

Position	Length	Roach	Angle	Luff	Leech	Full
84.098%	2.238m	1.112m	75.914?	10.484m	11.180m	Full
67.576%	3.462m	1.368m	74.256?	8.387m	8.983m	Full
50.456%	4.248m	1.225m	72.314?	6.282m	6.707m	Full
33.333%	4.782m	0.894m	71.257?	4.180m	4.431m	Full
16.054%	5.160m	0.455m	71.257?	2.008m	2.134m	Full

Reefing Points

1, Luff: 2.230m ; Leech: 2.351m ; Offset: 0.000m ; Number Eyelets: 0  
2, Luff: 5.000m ; Leech: 5.200m ; Offset: 0.000m ; Number Eyelets: 0

Draft Stripes

1, Luff: 4.085m ; Leech: 3.886m ;  
2, Luff: 8.236m ; Leech: 8.183m ;

Luff Slides

1, Position: 1.042m  
2, Position: 3.132m  
3, Position: 5.231m  
4, Position: 7.334m  
5, Position: 9.435m  
6, Position: 11.533m

Luff Curve

		Fanned Luff (@ 5.00% [0.270m])	Before BSeam
12.582m,	0.000m	100% (12.582m) :	0.000m
11.014m,	-0.031m	90% (11.324m) :	0.073m
9.436m,	-0.052m	80% (10.065m) :	0.131m
7.855m,	-0.062m	70% (8.808m) :	0.165m
6.291m,	-0.063m	60% (7.549m) :	0.181m
4.688m,	-0.058m	50% (6.291m) :	0.177m
3.145m,	-0.047m	40% (5.033m) :	0.162m
1.568m,	-0.026m	30% (3.775m) :	0.135m
0.000m,	0.000m	20% (2.516m) :	0.097m
		10% (1.259m) :	0.050m
		0% (0.000m) :	0.000m

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## Seam Allowances

Zone:	Split	Radial	Cross
Zone: 1/a	0.045m	0.015m	0.045m
Zone: 1/b	0.045m	0.015m	0.045m
Zone: 2/a	0.045m	0.015m	0.045m
Zone: 2/b	0.045m	0.015m	0.045m
Zone: 3	0.045m	0.015m	0.045m

## Edge Excesses

Sail:	Luff	Leech	Foot
	0.000m	0.000m	0.000m

## Total Seam Lengths (m)

Horizontal	8.24
Radial/Vertical	142.68
Bi-Radial Split	9.00

## Materials

Material	Area (m <sup>2</sup> )	Panels
Material 1	48.37	1\1,1\2,1\3,1\4,1\5 1\6,1\7,1\8,1\9,1\10 1\11,1\12,1b\1,1b\2,1b\3 1b\4,1b\5,1b\6,1b\7,1b\8 1b\9,1b\10,1b\11,1b\12,1b\13 2\1,2\2,2\3,2\4,2b\1 2b\2,2b\3,2b\4,2b\5,3\1 3\2,3\3,3\4,3\5,3\6 3\7

