

# Mainsail: 5000115 Main.des

Design Info  
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Design File:  
F:\Dropbox (个人)\Fareast Sails\2021\5000115 ULF\5000115 Main.des

Initial Design Date: 26/1/2021  
Boat:

Comments:

Client:

Design Data  
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## Main

### Measurements

Luff geodesic: 10.980m  
Leech geodesic: 11.472m  
Foot geodesic: 3.660m  
Head geodesic: 0.115m  
Upper width (MUW): 0.668m  
Three-quarter width (MTW): 1.223m  
Half width (MHW): 2.192m  
Quarter width (MQW): 2.978m  
Foot median: 11.134m  
ORC Mainsail area: 22.727m?  
Surface area: 23.007m?  
Clew height: 0.100m  
Mast rake: 0.000m

### Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	0.800m	0.145m	73.510?	8.779m	9.153m	
60.000%	1.100m	0.200m	73.510?	6.584m	6.865m	
40.000%	1.100m	0.166m	73.510?	4.389m	4.577m	
20.000%	1.100m	0.095m	73.510?	2.194m	2.288m	

### Reefing Points

1, Luff: 1.647m ; Leech: 1.707m ; Offset: 0.000m ; Number Eyelets: 2  
2, Luff: 3.293m ; Leech: 3.414m ; Offset: 0.000m ; Number Eyelets: 2  
3, Luff: 4.940m ; Leech: 5.121m ; Offset: 0.000m ; Number Eyelets: 2

### Luff Curve

Position	Depth	Fanned Luff (@ 5.00% [0.182m])	Before BSeam
10.980m,	0.000m	100% (10.980m) :	0.000m
9.611m,	-0.023m	90% (9.882m) :	0.013m
8.235m,	-0.040m	80% (8.784m) :	0.025m
6.855m,	-0.048m	70% (7.686m) :	0.032m
5.490m,	-0.050m	60% (6.588m) :	0.034m
4.091m,	-0.046m	50% (5.490m) :	0.034m
2.745m,	-0.037m	40% (4.392m) :	0.032m
1.368m,	-0.021m	30% (3.294m) :	0.027m
0.000m,	0.000m	20% (2.196m) :	0.020m
		10% (1.098m) :	0.010m
		0% (0.000m) :	0.000m

### Section Data

Position	Camber	Draft	Twist	Entry	Exit	Roach	Fwd Camb	Aft Camb
100.00%	6.165%	40.694%	18.989?	28.511?	-10.923?	0.000m	5.192%	4.558%
80.00%	11.039%	41.325%	15.191?	39.315?	-16.808?	0.000m	9.033%	8.059%
60.00%	12.581%	41.957%	11.394?	42.120?	-19.352?	0.000m	10.282%	9.220%
40.00%	11.131%	42.589%	7.596?	38.578?	-16.091?	0.000m	9.168%	8.050%
20.00%	7.870%	43.221%	3.798?	30.264?	-11.389?	0.000m	6.604%	5.658%
10.00%	5.807%	43.537%	1.899?	24.177?	-7.945?	0.000m	4.896%	4.101%
0.00%	3.000%	43.853%	0.000?	16.209?	-4.033?	0.000m	2.652%	2.082%

### Chord Data

Luff P : 10.9797m  
Foot E : 3.6486m  
Leech : 11.4093m  
Headboard width : 0.1136m

Include Headboard in Diagonal: Diagonal from Outer End of Headboard

### Fanned Foot Curve Depths

25.0%	50.0%	75.0%
0.0048m	0.0088m	0.0075m

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## Seam Allowances

Zone:	Split	Radial	Cross
Zone: 1/a	0.025m	0.015m	0.025m
Zone: 1/b	0.025m	0.015m	0.025m
Zone: 2/a	0.025m	0.015m	0.025m
Zone: 2/b	0.025m	0.015m	0.025m
Zone: 3	0.025m	0.015m	0.025m

## Edge Excesses

Sail:	Luff	Leech	Foot
	0.000m	0.000m	0.000m

## Total Seam Lengths (m)

Horizontal	4.27
Radial/Vertical	80.25
Bi-Radial Split	7.65

## Materials

Material	Area (m <sup>2</sup> )	Panels
Material 1	23.04	1\1, 1\2, 1\3, 1\4, 1\5 1\6, 1\7, 1\8, 1\9, 1\10 1b\1, 1b\2, 1b\3, 1b\4, 1b\5 1b\6, 1b\7, 1b\8, 1b\9, 1b\10 2\1, 2\2, 2\3, 2b\1, 2b\2 2b\3, 3\1, 3\2, 3\3, 3\4

