

Mainsail: 4001031 Aaron mainsail.des

Design Info
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Design File:
F:\Dropbox (个人)\Fareast Sails\2020\4001031 Aaron\4001031 Aaron mainsail.des

Initial Design Date: 7/11/2020
Boat:

Comments:

Client:

Design Data
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Main

Measurements

Luff geodesic: 12.000m
Leech geodesic: 12.700m
Foot geodesic: 4.500m
Head geodesic: 0.115m
Upper width (MUW): 0.786m
Three-quarter width (MTW): 1.462m
Half width (MHW): 2.656m
Quarter width (MQW): 3.639m
Foot median: 12.242m
ORC Mainsail area: 30.187m?
Surface area: 30.737m?
Clew height: 0.100m
Mast rake: 0.000m

Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.243m	0.166m	71.217?	9.597m	10.127m	Full
60.000%	2.255m	0.229m	71.217?	7.199m	7.595m	Full
40.000%	3.096m	0.190m	71.217?	4.801m	5.063m	Full
20.000%	3.830m	0.108m	71.217?	2.404m	2.532m	Full

Reefing Points

1, Luff: 1.799m ; Leech: 1.886m ; Offset: 0.000m ; Number Eyelets: 2
2, Luff: 3.599m ; Leech: 3.772m ; Offset: 0.000m ; Number Eyelets: 2
3, Luff: 5.399m ; Leech: 5.659m ; Offset: 0.000m ; Number Eyelets: 2

Luff Curve

Position	Depth	Fanned Luff (@ 5.00% [0.224m])	Before BSeam
12.000m,	0.000m	100% (12.000m) :	0.000m
10.504m,	-0.025m	90% (10.800m) :	0.014m
9.000m,	-0.044m	80% (9.600m) :	0.026m
7.491m,	-0.053m	70% (8.400m) :	0.033m
6.000m,	-0.055m	60% (7.200m) :	0.036m
4.471m,	-0.051m	50% (6.000m) :	0.035m
3.000m,	-0.041m	40% (4.800m) :	0.033m
1.495m,	-0.023m	30% (3.600m) :	0.027m
0.000m,	0.000m	20% (2.400m) :	0.020m
		10% (1.200m) :	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%	41.326%	15.191?	39.314?	-16.808?	0.000m	9.033%	8.059%
60.00%	12.580%	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%	8.051%
20.00%	7.870%	43.221%	3.798?	30.264?	-11.389?	0.000m	6.604%	5.659%
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%	2.083%

Chord Data

Luff P : 11.9996m
Foot E : 4.4855m
Leech : 12.7032m
Headboard width : 0.1136m

Include Headboard in Diagonal: Diagonal from Outer End of Headboard

Fanned Foot Curve Depths

25.0%	50.0%	75.0%
0.0241m	0.0357m	0.0278m

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

Edge Excesses			
	Luff	Leech	Foot
Sail:	0.000m	0.000m	0.000m

Total Seam Lengths (m)

Horizontal	26.62
Radial/Vertical	0.00
Bi-Radial Split	0.00

Materials

Material	Area (m ²)	Panels
Material 1	30.76	1\1, 1b\1, 2\1, 2\2, 2\3 2\4, 2\5, 2\6, 2\7, 2\8 2\9

