

Mainsail: 5000319 Mainsail Phil V1.des

Design Info
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Design File:
F:\Dropbox (个人)\Fareast Sails\2021\5000319 Phil\5000319 Mainsail Phil V1.des

Initial Design Date: 25/3/2021
Boat:

Comments:

Client:

Design Data
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Main

Measurements

Luff geodesic: 10.000m
Leech geodesic: 10.588m
Foot geodesic: 3.750m
Head geodesic: 0.115m
Upper width (MUW): 0.748m
Three-quarter width (MTW): 1.383m
Half width (MHW): 2.414m
Quarter width (MQW): 3.155m
Foot median: 10.270m
ORC Mainsail area: 22.208m?
Surface area: 22.933m?
Clew height: 0.100m
Mast rake: 0.000m

Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.217m	0.290m	71.405?	7.995m	8.433m	Full
60.000%	2.121m	0.400m	71.405?	5.996m	6.325m	Full
40.000%	2.777m	0.332m	71.405?	3.997m	4.217m	Full
20.000%	3.301m	0.190m	71.405?	1.998m	2.108m	Full

Reefing Points

1, Luff: 1.500m ; Leech: 1.552m ; Offset: 0.000m ; Number Eyelets: 2

Luff Curve

		Fanned Luff (@ 5.00% [0.187m])	Before BSeam
10.000m,	0.000m	100% (10.000m) :	0.000m
8.754m,	-0.021m	90% (9.000m) :	0.011m
7.500m,	-0.036m	80% (8.000m) :	0.021m
6.243m,	-0.044m	70% (7.000m) :	0.027m
5.000m,	-0.045m	60% (6.000m) :	0.030m
3.726m,	-0.042m	50% (5.000m) :	0.029m
2.500m,	-0.034m	40% (4.000m) :	0.027m
1.246m,	-0.019m	30% (3.000m) :	0.023m
0.000m,	0.000m	20% (2.000m) :	0.017m
		10% (1.000m) :	0.008m
		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%	8.058%
60.00%	12.580%	41.957%	11.394?	42.120?	-19.352?	0.000m	10.282%	9.221%
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%	5.658%
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%	2.083%

Chord Data

Luff P : 9.9997m
Foot E : 3.7367m
Leech : 10.5372m
Headboard width : 0.1136m

Include Headboard in Diagonal: Diagonal from Outer End of Headboard

Fanned Foot Curve Depths

25.0% 50.0% 75.0%
0.0683m 0.0949m 0.0712m

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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	20.38
Radial/Vertical	0.00
Bi-Radial Split	0.00

Materials

Material	Area (m ²)	Panels
Material 1	22.92	1\1, 1b\1, 2\1, 2\2, 2\3, 2\4, 2\5, 2\6, 2\7

