

Mainsail: 7001224 Bruce-1 Beneteau First310 MainsailV2.des Fareast Sails/ Michael,

Design Info
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Design File:
\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2023 Order\Passed to Production\7001224 Bruce\7001

Initial Design Date: 27/12/2023
Boat:
Beneteau First 310
Client:
Fareast Sails/ Michael,

Comments:
tack angle 87 degree

Design Data
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Main

Measurements

Luff geodesic: 11.400m
Leech geodesic: 11.852m
Foot geodesic: 3.800m
Head geodesic: 0.115m
Upper width (MUW): 0.684m
Three-quarter width (MTW): 1.252m
Half width (MHW): 2.248m
Quarter width (MQW): 3.084m
Foot median: 11.561m
ORC Mainsail area: 24.342m?
Surface area: 24.707m?
Clew height: 0.101m
Mast rake: 0.457m

Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.066m	0.133m	74.731?	9.114m	9.457m	Full
60.000%	1.902m	0.170m	74.731?	6.838m	7.093m	Full
40.000%	1.400m	0.151m	74.731?	4.562m	4.729m	
20.000%	1.300m	0.091m	74.731?	2.286m	2.364m	

Reefing Points

1, Luff: 1.426m ; Leech: 1.471m ; Offset: 0.000m ; Number Eyelets: 2
2, Luff: 3.013m ; Leech: 3.105m ; Offset: 0.000m ; Number Eyelets: 2

Draft Stripes

1, Luff: 2.848m ; Leech: 2.882m ;
2, Luff: 5.696m ; Leech: 5.835m ;
3, Luff: 7.976m ; Leech: 8.206m ;

Luff Slides

1, Position: 0.842m
2, Position: 1.728m
3, Position: 2.308m
4, Position: 2.890m
5, Position: 3.696m
6, Position: 4.491m
7, Position: 5.315m
8, Position: 6.074m
9, Position: 7.593m
10, Position: 8.352m
11, Position: 9.875m
12, Position: 10.637m

Luff Curve

		Fanned Luff (@ 5.00% [0.189m])	Before BSeam
11.399m,	0.000m	100% (11.400m) :	0.000m
8.608m,	-0.065m	90% (10.261m) :	0.043m
5.705m,	-0.076m	80% (9.120m) :	0.084m
2.852m,	-0.051m	70% (7.980m) :	0.117m
0.000m,	0.000m	60% (6.840m) :	0.135m
		50% (5.700m) :	0.136m
		40% (4.560m) :	0.124m
		30% (3.420m) :	0.104m
		20% (2.280m) :	0.075m
		10% (1.140m) :	0.038m
		0% (0.000m) :	0.000m

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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/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	4.74
Radial/Vertical	73.93
Bi-Radial Split	7.39

Materials

Material	Area (m ²)	Panels
7oz p	24.74	1\1,1\2,1\3,1\4,1\5 1\6,1\7,1\8,1\9,1b\1 1b\2,1b\3,1b\4,1b\5,1b\6 1b\7,1b\8,1b\9,2\1,2\2 2\3,2b\1,2b\2,2b\3,3\1 3\2,3\3,3\4

