

# Mainsail: 7001224 Bruce-1 Beneteau First310 MainsailV1.des

## Fareast Sails/ Michael,

### Design Info

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### Design File:

\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2023 Order\Need to be Confirmed\7001224 Bruce\700

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:	11.300m
Leech geodesic:	11.757m
Foot geodesic:	3.800m
Head geodesic:	0.115m
Upper width (MUW):	0.684m
Three-quarter width (MTW):	1.252m
Half width (MHW):	2.247m
Quarter width (MQW):	3.084m
Foot median:	11.466m
ORC Mainsail area:	24.126m?
Surface area:	24.503m?
Clew height:	0.101m
Mast rake:	0.457m

#### Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.066m	0.133m	74.731?	9.032m	9.381m	Full
60.000%	1.902m	0.170m	74.731?	6.773m	7.036m	Full
40.000%	1.400m	0.151m	74.731?	4.515m	4.691m	
20.000%	1.300m	0.091m	74.731?	2.258m	2.345m	

#### Reefing Points

1, Luff: 1.414m ; Leech: 1.459m ; Offset: 0.000m ; Number Eyelets: 2  
 2, Luff: 2.987m ; Leech: 3.080m ; Offset: 0.000m ; Number Eyelets: 2

#### Draft Stripes

1, Luff: 3.726m ; Leech: 3.795m ;  
 2, Luff: 7.454m ; Leech: 7.667m ;

#### Luff Slides

1, Position: 0.834m  
 2, Position: 1.713m  
 3, Position: 2.288m  
 4, Position: 2.865m  
 5, Position: 3.664m  
 6, Position: 4.452m  
 7, Position: 5.268m  
 8, Position: 6.021m  
 9, Position: 7.526m  
 10, Position: 8.279m  
 11, Position: 9.788m  
 12, Position: 10.544m

#### Luff Curve

		Fanned Luff (@ 5.00% [0.189m])	Before BSeam
11.299m,	0.000m	100% (11.300m) :	0.000m
8.532m,	-0.065m	90% (10.171m) :	0.043m
5.655m,	-0.076m	80% (9.040m) :	0.084m
2.827m,	-0.051m	70% (7.910m) :	0.117m
0.000m,	0.000m	60% (6.780m) :	0.135m
		50% (5.650m) :	0.136m
		40% (4.520m) :	0.124m
		30% (3.390m) :	0.104m
		20% (2.260m) :	0.075m
		10% (1.130m) :	0.038m
		0% (0.000m) :	0.000m

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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	4.74
Radial/Vertical	73.46
Bi-Radial Split	7.33

## Materials

Material	Area (m <sup>2</sup> )	Panels
7oz p	24.54	1/1,1/2,1/3,1/4,1/5 1/6,1/7,1/8,1/9,1b1 1b2,1b3,1b4,1b5,1b6 1b7,1b8,1b9,2/1,2/2 2/3,2b1,2b2,2b3,3/1 3/2,3/3,3/4

