

# Mainsail: 7000710 Charles Grand Soleil 46.3 MainsailV3.des

## Design Info

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## Design File:

\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2023 Order\Need Confrim Order\7000710 Charles\700

Initial Design Date: 12/7/2023

Boat:

Comments:

Client:

## Design Data

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### Main

#### Measurements

Luff geodesic:	15.469m
Leech geodesic:	16.136m
Foot geodesic:	5.029m
Head geodesic:	0.152m
Upper width (MUW):	0.999m
Three-quarter width (MTW):	1.831m
Half width (MHW):	3.188m
Quarter width (MQW):	4.212m
Foot median:	15.793m
ORC Mainsail area:	45.729m?
Surface area:	46.833m?
Clew height:	0.030m
Mast rake:	0.000m

#### Battens

Position	Length	Roach	Angle	Luff	Leech	Full
80.000%	1.589m	0.345m	74.124?	12.364m	12.868m	Full
60.000%	2.757m	0.450m	74.124?	9.267m	9.651m	Full
40.000%	3.677m	0.395m	74.124?	6.172m	6.434m	Full
20.000%	4.405m	0.229m	74.124?	3.077m	3.217m	Full

#### Reefing Points

1, Luff: 1.933m ; Leech: 1.988m ; Offset: 0.000m ; Number Eyelets: 3  
 2, Luff: 4.098m ; Leech: 4.214m ; Offset: 0.000m ; Number Eyelets: 3

#### Draft Stripes

1, Luff: 3.866m ; Leech: 3.863m ;  
 2, Luff: 7.732m ; Leech: 7.882m ;  
 3, Luff: 11.600m ; Leech: 11.944m ;

#### Luff Slides

1, Position: 0.771m  
 2, Position: 1.543m  
 3, Position: 2.314m  
 4, Position: 3.859m  
 5, Position: 4.632m  
 6, Position: 5.405m  
 7, Position: 6.952m  
 8, Position: 7.725m  
 9, Position: 8.499m  
 10, Position: 10.046m  
 11, Position: 10.819m  
 12, Position: 11.593m  
 13, Position: 13.142m  
 14, Position: 13.918m  
 15, Position: 14.693m

#### Luff Curve

		Fanned Luff (@ 5.00% [0.250m])	Before BSeam
15.468m,	0.000m	100% (15.469m) :	0.000m
13.540m,	-0.036m	90% (13.922m) :	0.018m
11.601m,	-0.062m	80% (12.375m) :	0.035m
9.657m,	-0.073m	70% (10.828m) :	0.045m
7.734m,	-0.074m	60% (9.281m) :	0.048m
5.764m,	-0.069m	50% (7.734m) :	0.048m
3.867m,	-0.055m	40% (6.187m) :	0.044m
1.928m,	-0.031m	30% (4.641m) :	0.038m
0.000m,	0.000m	20% (3.094m) :	0.027m
		10% (1.547m) :	0.014m
		0% (0.000m) :	0.000m

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Seam Allowances			
Zone:	Split	Radial	Cross
1	0.039m	0.039m	0.039m

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

Total Seam Lengths (m)

Horizontal	39.31
Radial/Vertical	0.00
Bi-Radial Split	0.00

Materials

Material	Area (m <sup>2</sup> )	Panels
Material 1	46.88	1,2,3,4,5 6,7,8,9,10 11,12,13,14

