

Mainsail: 5000331 Steve-1 Main-v2

Design Info
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Design File:
E:\dropbox\Dropbox\Fareast Sails\2021\5000331 Steve Remake\5000331 Steve-1 Main-v2.des

Initial Design Date: 22/12/2021
Boat:

Comments:

Client:

Design Data
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Main

Measurements

Luff geodesic: 16.243m
Leech geodesic: 16.510m
Foot geodesic: 4.977m
Head geodesic: 0.133m
Upper width (MUW): 0.927m
Three-quarter width (MTW): 1.714m
Half width (MHW): 3.056m
Quarter width (MQW): 4.089m
Foot median: 16.252m
ORC Mainsail area: 46.356m?
Surface area: 47.008m?
Clew height: 0.498m
Mast rake: 0.000m

Battens

| Position | Length | Roach | Angle | Luff | Leech | Full |
|----------|--------|--------|---------|---------|---------|------|
| 80.000% | 1.469m | 0.295m | 74.497? | 13.064m | 13.168m | Full |
| 60.000% | 2.626m | 0.400m | 74.497? | 9.890m | 9.876m | Full |
| 40.000% | 3.533m | 0.334m | 74.497? | 6.717m | 6.584m | Full |
| 20.000% | 4.287m | 0.183m | 74.497? | 3.544m | 3.292m | Full |

Reefing Points

1, Luff: 2.434m ; Leech: 2.460m ; Offset: 0.000m ; Number Eyelets: 3
2, Luff: 4.868m ; Leech: 4.918m ; Offset: 0.000m ; Number Eyelets: 3
3, Luff: 7.304m ; Leech: 7.376m ; Offset: 0.000m ; Number Eyelets: 2

Luff Slides

1, Position: 1.090m
2, Position: 2.179m
3, Position: 4.350m
4, Position: 5.430m
5, Position: 7.592m
6, Position: 8.673m
7, Position: 10.834m
8, Position: 11.915m
9, Position: 14.078m
10, Position: 15.161m

Luff Curve

| | | Fanned Luff (@ 5.00% [0.247m]) | Before BSeam |
|----------|---------|--------------------------------|--------------|
| 16.243m, | 0.000m | 100% (16.243m) : | -0.000m |
| 12.182m, | -0.040m | 90% (14.619m) : | 0.012m |
| 8.122m, | -0.054m | 80% (12.994m) : | 0.025m |
| 4.061m, | -0.040m | 70% (11.370m) : | 0.034m |
| 0.000m, | 0.000m | 60% (9.746m) : | 0.039m |
| | | 50% (8.121m) : | 0.040m |
| | | 40% (6.497m) : | 0.037m |
| | | 30% (4.873m) : | 0.031m |
| | | 20% (3.248m) : | 0.022m |
| | | 10% (1.625m) : | 0.010m |
| | | 0% (0.000m) : | 0.000m |

Section Data

| Position | Camber | Draft | Twist | Entry | Exit | Roach | Fwd Camb | Aft Camb |
|----------|---------|---------|---------|---------|----------|--------|----------|----------|
| 100.00% | 2.366% | 40.694% | 19.969? | 24.769? | -7.857? | 0.000m | 2.300% | 2.119% |
| 80.00% | 8.951% | 41.325% | 15.975? | 44.141? | -16.691? | 0.000m | 7.306% | 6.962% |
| 60.00% | 11.827% | 41.957% | 11.982? | 52.762? | -20.982? | 0.000m | 9.440% | 9.013% |
| 40.00% | 10.628% | 42.589% | 7.988? | 51.239? | -19.071? | 0.000m | 8.488% | 8.063% |
| 20.00% | 7.588% | 43.221% | 3.994? | 44.917? | -14.686? | 0.000m | 6.171% | 5.794% |
| 10.00% | 5.285% | 43.537% | 1.997? | 38.590? | -10.999? | 0.000m | 4.423% | 4.077% |
| 0.00% | 2.300% | 43.853% | 0.000? | 28.142? | -7.132? | 0.000m | 2.148% | 1.899% |

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Chord Data

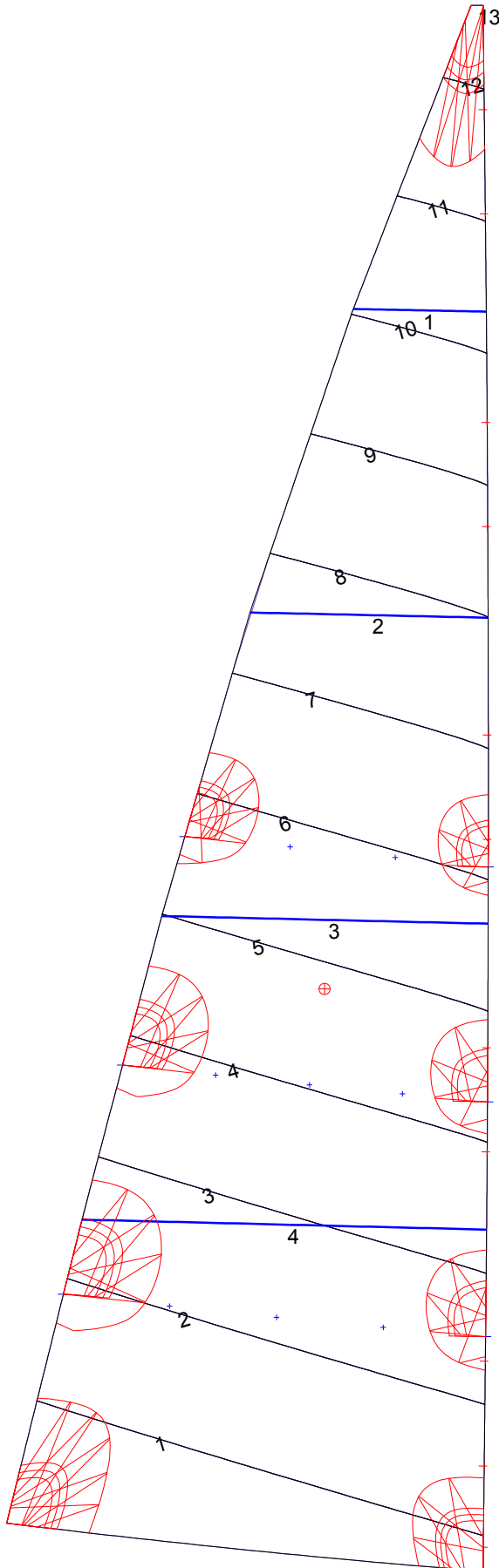
Luff P : 16.2427m
Foot E : 4.9634m
Leech : 16.4747m
Headboard width : 0.1326m

Include Headboard in Diagonal: Diagonal from Outer End of Headboard

Fanned Foot Curve Depths

| | | |
|---------|---------|---------|
| 25.0% | 50.0% | 75.0% |
| 0.0095m | 0.0139m | 0.0093m |

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| Seam Allowances | | | |
|-----------------|--------|--------|--------|
| Zone: 1 | Split | Radial | Cross |
| | 0.000m | 0.000m | 0.035m |

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

Total Seam Lengths (m)

| | |
|-----------------|-------|
| Horizontal | 35.13 |
| Radial/Vertical | 0.00 |
| Bi-Radial Split | 0.00 |

Materials

| Material | Area (m ²) | Panels |
|------------|------------------------|-------------------------------------|
| Material 1 | 46.98 | 1,2,3,4,5 6,7,8,9,10 11,12,13 |