

Mainsail: mainsail.des

Design Info
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Design File:
C:\Users\Administrator\Desktop\mainsail.des

Initial Design Date: 6/7/2021
Boat:

Comments:

Client:

Design Data
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Main

Measurements

Luff geodesic: 9.950m
Leech geodesic: 10.326m
Foot geodesic: 3.050m
Head geodesic: 0.115m
Upper width (MUW): 0.586m
Three-quarter width (MTW): 1.057m
Half width (MHW): 1.897m
Quarter width (MQW): 2.554m
Foot median: 10.117m
ORC Mainsail area: 17.635m?
Surface area: 17.968m?
Clew height: 0.060m
Mast rake: 0.000m

Battens

| Position | Length | Roach | Angle | Luff | Leech | Full |
|----------|--------|--------|---------|--------|--------|------|
| 80.000% | 0.900m | 0.135m | 74.648? | 7.956m | 8.249m | Full |
| 60.000% | 1.622m | 0.225m | 74.648? | 5.966m | 6.187m | Full |
| 40.000% | 1.070m | 0.210m | 74.648? | 3.977m | 4.124m | |
| 20.000% | 1.070m | 0.135m | 74.648? | 1.989m | 2.062m | |

Reefing Points

1, Luff: 1.400m ; Leech: 1.433m ; Offset: 0.000m ; Number Eyelets: 2
2, Luff: 2.750m ; Leech: 2.818m ; Offset: 0.000m ; Number Eyelets: 2
3, Luff: 4.050m ; Leech: 4.154m ; Offset: 0.000m ; Number Eyelets: 2

Luff Curve

| | | Fanned Luff (@ 5.00% [0.152m]) | Before BSeam |
|---------|---------|--------------------------------|--------------|
| 9.950m, | 0.000m | 100% (9.950m) : | 0.000m |
| 8.945m, | -0.021m | 90% (8.955m) : | 0.034m |
| 7.960m, | -0.037m | 80% (7.960m) : | 0.063m |
| 6.955m, | -0.047m | 70% (6.965m) : | 0.084m |
| 5.969m, | -0.052m | 60% (5.970m) : | 0.098m |
| 4.497m, | -0.050m | 50% (4.975m) : | 0.102m |
| 2.985m, | -0.039m | 40% (3.980m) : | 0.098m |
| 1.580m, | -0.023m | 30% (2.985m) : | 0.084m |
| 0.000m, | 0.000m | 20% (1.990m) : | 0.061m |
| | | 10% (0.995m) : | 0.030m |
| | | 0% (0.000m) : | 0.000m |

Section Data

| Position | Camber | Draft | Twist | Entry | Exit | Roach | Fwd Camb | Aft Camb |
|----------|---------|---------|---------|---------|----------|--------|----------|----------|
| 100.00% | 9.626% | 36.557% | 14.000? | 33.977? | -8.352? | 0.000m | 7.611% | 6.281% |
| 87.99% | 10.080% | 36.828% | 12.172? | 34.560? | -11.774? | 0.000m | 7.937% | 6.967% |
| 75.00% | 10.605% | 37.121% | 10.210? | 35.813? | -15.229? | 0.000m | 8.329% | 7.691% |
| 50.00% | 11.209% | 37.686% | 6.590? | 36.667? | -19.334? | 0.000m | 8.752% | 8.486% |
| 25.00% | 9.324% | 38.250% | 3.200? | 32.658? | -17.695? | 0.000m | 7.422% | 7.206% |
| 10.00% | 6.243% | 38.588% | 1.300? | 22.272? | -12.349? | 0.000m | 5.001% | 4.864% |
| 0.00% | 3.332% | 38.814% | 0.000? | 11.615? | -7.976? | 0.000m | 2.651% | 2.752% |

Chord Data

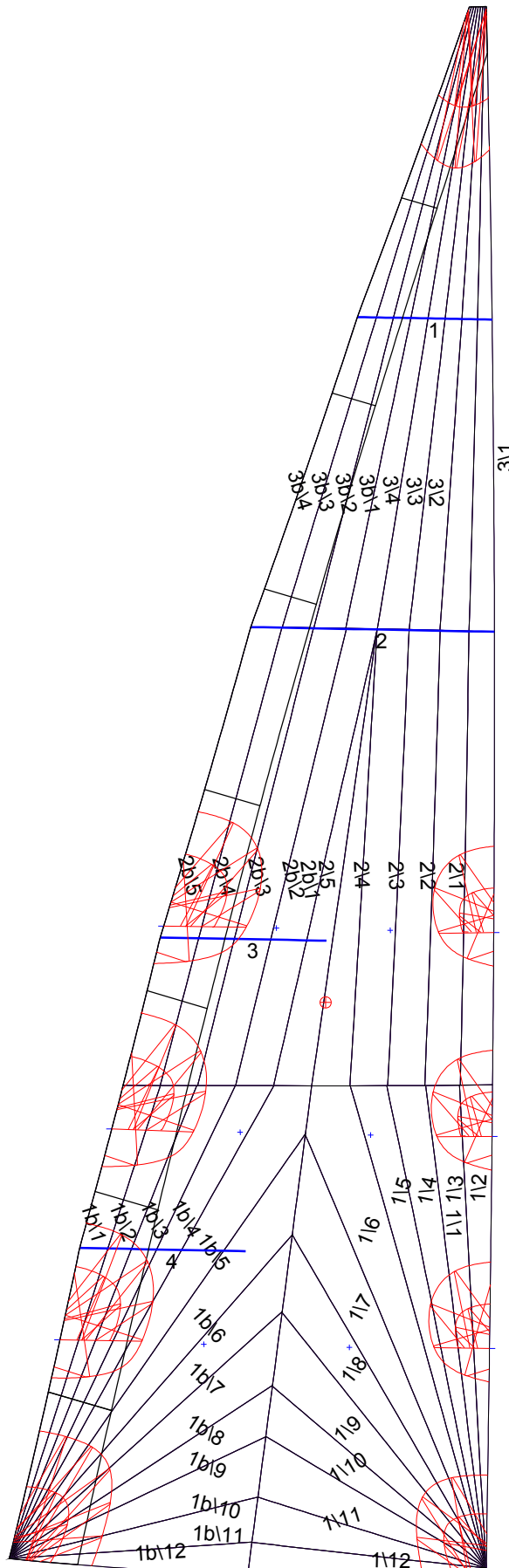
Luff P : 9.9497m
Foot E : 3.0383m
Leech : 10.3111m
Headboard width : 0.1121m

Include Headboard in Diagonal: Diagonal from Outer End of Headboard

Fanned Foot Curve Depths

| | | |
|---------|---------|---------|
| 25.0% | 50.0% | 75.0% |
| 0.0435m | 0.0576m | 0.0413m |

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Seam Allowances

| Zone: | Split | Radial | Cross |
|-----------|--------|--------|--------|
| Zone: 1/a | 0.038m | 0.015m | 0.038m |
| Zone: 1/b | 0.038m | 0.015m | 0.038m |
| Zone: 2/a | 0.038m | 0.015m | 0.038m |
| Zone: 2/b | 0.038m | 0.015m | 0.038m |
| Zone: 3/a | 0.038m | 0.015m | 0.038m |
| Zone: 3/b | 0.038m | 0.015m | 0.038m |
| Cover 1 | 0.025m | 0.025m | 0.025m |

Edge Excesses

| Sail: | Luff | Leech | Foot |
|---------|--------|--------|--------|
| Sail: | 0.000m | 0.000m | 0.000m |
| Cover 0 | 0.000m | 0.000m | 0.000m |

Total Seam Lengths (m)

| | |
|-----------------|--------|
| Horizontal | 4.05 |
| Radial/Vertical | 103.76 |
| Bi-Radial Split | 10.63 |

Materials

| Material | Area (m²) | Panels |
|----------|-----------|--|
| 6.11 | 18.00 | 1\1,1\2,1\3,1\4,1\5 1\6,1\7,1\8,1\9,1\10 1\11,1\12,1b\1,1b\2,1b\3 1b\4,1b\5,1b\6,1b\7,1b\8 1b\9,1b\10,1b\11,1b\12,2\1 2\2,2\3,2\4,2\5,2b\1 2b\2,2b\3,2b\4,2b\5,3\1 3\2,3\3,3\4,3b\1,3b\2 3b\3,3b\4 |