

# Mainsail: 7001011 Roger Mainsail.des

Design Info  
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Design File:  
\\NAS\Engineering files\Queenie-Customer Order\Fareast Sails\2023 Order\Need to be Confirmed\7001011 Roger\700

Initial Design Date: 9/11/2023  
Boat:

Comments:

Client:

Design Data  
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## Main

### Measurements

Luff geodesic: 13.100m  
 Leech geodesic: 13.750m  
 Foot geodesic: 4.474m  
 Head geodesic: 0.115m  
 Upper width (MUW): 0.865m  
 Three-quarter width (MTW): 1.591m  
 Half width (MHW): 2.783m  
 Quarter width (MQW): 3.719m  
 Foot median: 13.380m  
 ORC Mainsail area: 34.036m?  
 Surface area: 34.854m?  
 Clew height: 0.100m  
 Mast rake: 0.000m

### Battens

| Position | Length | Roach  | Angle   | Luff    | Leech   | Full |
|----------|--------|--------|---------|---------|---------|------|
| 80.000%  | 1.383m | 0.307m | 72.804? | 10.475m | 10.963m | Full |
| 60.000%  | 2.402m | 0.399m | 72.804? | 7.856m  | 8.223m  | Full |
| 40.000%  | 3.228m | 0.352m | 72.804? | 5.237m  | 5.482m  | Full |
| 20.000%  | 3.900m | 0.203m | 72.804? | 2.618m  | 2.741m  | Full |

### Reefing Points

1, Luff: 1.781m ; Leech: 1.843m ; Offset: 0.000m ; Number Eyelets: 0  
 2, Luff: 3.602m ; Leech: 3.719m ; Offset: 0.000m ; Number Eyelets: 0  
 3, Luff: 5.894m ; Leech: 6.093m ; Offset: 0.000m ; Number Eyelets: 0

### Draft Stripes

1, Luff: 3.274m ; Leech: 3.295m ;  
 2, Luff: 6.549m ; Leech: 6.712m ;  
 3, Luff: 9.824m ; Leech: 10.171m ;

### Luff Slides

1, Position: 0.761m  
 2, Position: 1.538m  
 3, Position: 3.352m  
 4, Position: 4.364m  
 5, Position: 6.326m  
 6, Position: 7.260m  
 7, Position: 8.729m  
 8, Position: 9.602m  
 9, Position: 11.350m  
 10, Position: 12.225m

### Luff Curve

|          |         | Fanned Luff (@ 5.00% [0.223m]) | Before BSeam |
|----------|---------|--------------------------------|--------------|
| 13.100m, | 0.000m  | 100% (13.100m) :               | 0.000m       |
| 11.467m, | -0.030m | 90% (11.790m) :                | 0.019m       |
| 9.825m,  | -0.052m | 80% (10.480m) :                | 0.035m       |
| 8.178m,  | -0.061m | 70% (9.170m) :                 | 0.044m       |
| 6.550m,  | -0.062m | 60% (7.860m) :                 | 0.048m       |
| 4.881m,  | -0.058m | 50% (6.550m) :                 | 0.047m       |
| 3.275m,  | -0.046m | 40% (5.240m) :                 | 0.044m       |
| 1.632m,  | -0.026m | 30% (3.930m) :                 | 0.038m       |
| 0.000m,  | 0.000m  | 20% (2.620m) :                 | 0.028m       |
|          |         | 10% (1.310m) :                 | 0.014m       |
|          |         | 0% (0.000m) :                  | 0.000m       |

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## Seam Allowances

|           | Split  | Radial | Cross  |
|-----------|--------|--------|--------|
| Zone: 1/a | 0.038m | 0.016m | 0.045m |
| Zone: 1/b | 0.038m | 0.016m | 0.045m |
| Zone: 2/a | 0.038m | 0.016m | 0.045m |
| Zone: 2/b | 0.038m | 0.016m | 0.045m |
| Zone: 3   | 0.038m | 0.016m | 0.045m |
| Zone: 4   | 0.038m | 0.016m | 0.045m |

## Edge Excesses

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

## Total Seam Lengths (m)

|                 |        |
|-----------------|--------|
| Horizontal      | 8.02   |
| Radial/Vertical | 113.23 |
| Bi-Radial Split | 7.13   |

## Materials

| Material   | Area (m <sup>2</sup> ) | Panels   |
|------------|------------------------|--|
| Material 1 | 34.91                  | 1\1, 1\2, 1\3, 1\4, 1\5<br>1\6, 1\7, 1\8, 1\9, 1\10<br>1\11, 1b\1, 1b\2, 1b\3, 1b\4<br>1b\5, 1b\6, 1b\7, 1b\8, 1b\9<br>1b\10, 1b\11, 2\1, 2\2, 2\3<br>2\4, 2b\1, 2b\2, 2b\3, 2b\4<br>3\1, 3\2, 3\3, 3\4, 3\5<br>3\6, 4\1, 4\2, 4\3, 4\4<br>4\5 |

