



World Leader in Rating Technology

## 2018 ORC Club Certificate

### Rating Office

Hungarian Yachting Association  
Istvanmezei ut 1-3  
H-1146 Budapest  
HUNGARY



### Certificate

Number **023/18**  
Issued On **20/07/2018**  
ORC Ref **HUN10015076**  
VPP Ver. **2018 1.00**  
Valid until **31/12/2018**

### Crew Weight

Default 753kg  
Maximum **450kg**  
Minimum\* **338kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

### Special Scoring

	ToD	ToT
Non Spin GPH	<b>658.6</b>	<b>0.9110</b>
Non Spin OSN	<b>636.3</b>	<b>0.9429</b>

### Sails Limitations

Headsails **5** Spinnakers **3**

**Spinnaker configuration**  
Symmetric: **No**  
Asymmetric: **Yes 112.00**  
Flying H/S: **No**  
Spin. Pole: **No**

### Class Division Length

**CDL = 9.653**

### Stability (Estimated)

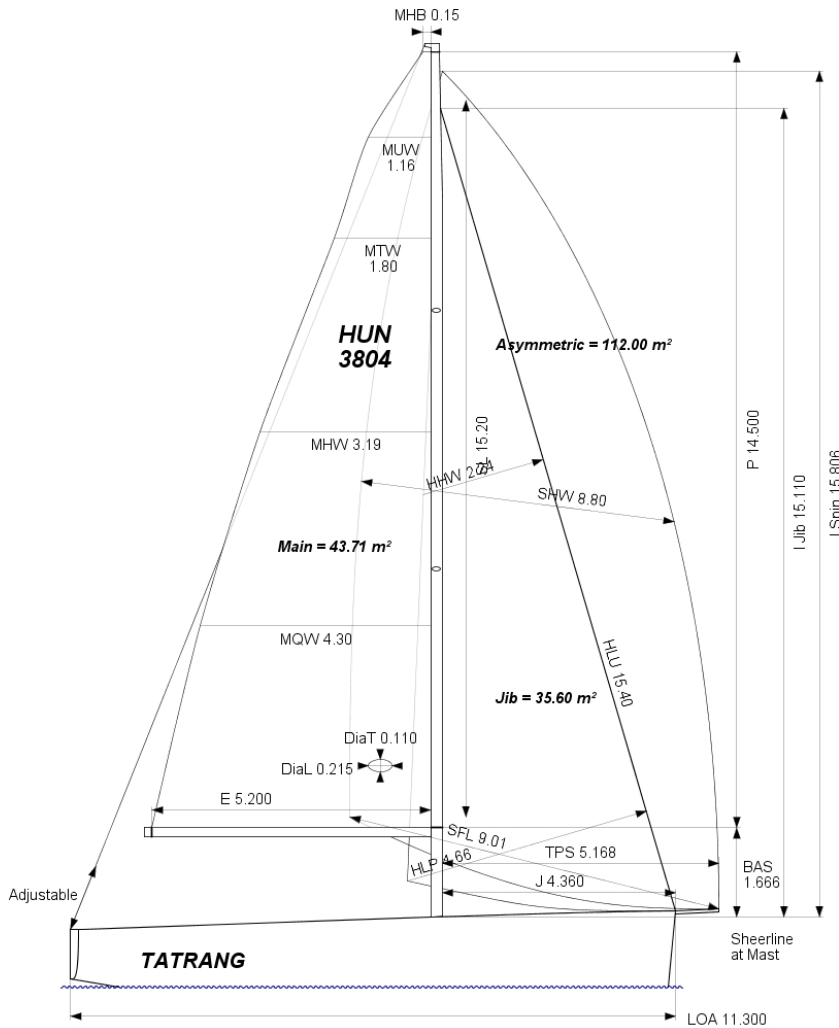
Limit Positive Stab.: **119.9°**  
Stability Index: **123.8**

### Owner

Csere András  
1111 Bp. Egy József utca 15

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature



BOAT		GPH	HULL			
Name <b>Tatrang</b> Sail Nr <b>HUN-3804</b>		<b>620.6</b>	Data File <b>HUN3804</b>	LOA <b>11.300m</b>		
			Offset File <b>DEH38-</b>	MB <b>3.758m</b>		
			Displacement <b>7,590kg</b>	Draft <b>2.033m</b>		
			IMS Division <b>Cruiser/Racer</b>	Dynamic All. <b>0.241%</b>		
			Fwd Accom. <b>Yes</b>	Construction <b>Cored</b>		
			Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
			Crew Arm Ex	Carbon Rudder <b>No</b>		
				Light Stanchions <b>No</b>		
			IMSL <b>10.693m</b>	VCGD <b>0.124m</b>	Sink <b>23.41kg/mm</b>	
			RL <b>8.612m</b>	VCGM <b>0.026m</b>	WS <b>30.78m²</b>	
			LSMO <b>10.654m</b>	Displacement/Length ratio <b>6.2763</b>		
			Water Ballast <b>0</b>	Trim Tab <b>No</b>		
			BLR Index <b>0.0000</b>			
COMMENTS						
PROPELLER						
Installation	<b>Strut</b>	PRD	<b>0.435</b>			
Type	<b>Folding 2 blades</b>	PBW	<b>0.135</b>			
		PIPA	<b>0.0040</b>			
CENTERBOARD		<b>N/A</b>				
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>602.3</b>			<b>677.9</b>		
Time on Time	<b>0.9962</b>			<b>0.9958</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>716.9</b>	<b>547.4</b>	<b>489.3</b>	<b>928.3</b>	<b>682.5</b>	<b>592.4</b>
Time on Time	<b>0.9415</b>	<b>1.2331</b>	<b>1.3796</b>	<b>0.7271</b>	<b>0.9890</b>	<b>1.1395</b>



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## ORC Club Certificate Appendix

<b>BOAT</b>		Certificate Number <b>023/18</b>	
Name	<b>Tatrang</b>	Issued On	<b>20/07/2018</b>
Sail Nr	<b>HUN-3804</b>		

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1081.7</b>	<b>889.2</b>	<b>781.1</b>	<b>719.5</b>	<b>694.9</b>	<b>684.6</b>	<b>674.6</b>
52°	<b>704.5</b>	<b>589.9</b>	<b>523.5</b>	<b>493.9</b>	<b>482.0</b>	<b>477.4</b>	<b>474.9</b>
60°	<b>665.6</b>	<b>560.4</b>	<b>504.3</b>	<b>480.5</b>	<b>468.8</b>	<b>463.8</b>	<b>460.6</b>
75°	<b>636.9</b>	<b>538.4</b>	<b>491.3</b>	<b>470.1</b>	<b>456.5</b>	<b>446.7</b>	<b>437.5</b>
90°	<b>629.7</b>	<b>522.1</b>	<b>478.0</b>	<b>462.5</b>	<b>453.3</b>	<b>439.8</b>	<b>417.1</b>
110°	<b>622.9</b>	<b>514.3</b>	<b>471.3</b>	<b>448.9</b>	<b>429.9</b>	<b>417.8</b>	<b>399.5</b>
120°	<b>640.8</b>	<b>527.8</b>	<b>477.5</b>	<b>452.8</b>	<b>431.3</b>	<b>410.1</b>	<b>381.5</b>
135°	<b>711.5</b>	<b>578.3</b>	<b>502.8</b>	<b>469.1</b>	<b>447.3</b>	<b>425.7</b>	<b>384.1</b>
150°	<b>840.7</b>	<b>668.4</b>	<b>568.4</b>	<b>508.8</b>	<b>480.5</b>	<b>461.0</b>	<b>428.1</b>
Run VMG	<b>970.8</b>	<b>771.8</b>	<b>656.3</b>	<b>587.5</b>	<b>552.5</b>	<b>508.8</b>	<b>459.7</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1026.2</b>	<b>830.5</b>	<b>718.7</b>	<b>653.5</b>	<b>623.7</b>	<b>596.7</b>	<b>567.2</b>
Circular Random	<b>859.2</b>	<b>691.4</b>	<b>601.5</b>	<b>549.7</b>	<b>518.4</b>	<b>498.3</b>	<b>473.4</b>
Coastal / Long Distance	<b>1020.7</b>	<b>778.3</b>	<b>644.7</b>	<b>566.5</b>	<b>529.0</b>	<b>497.7</b>	<b>450.2</b>
Non Spinnaker	<b>932.0</b>	<b>741.8</b>	<b>637.3</b>	<b>575.4</b>	<b>537.0</b>	<b>512.2</b>	<b>482.3</b>

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.6°</b>	<b>41.8°</b>	<b>41.3°</b>	<b>40.8°</b>	<b>40.0°</b>	<b>39.6°</b>	<b>39.2°</b>
Beat VMG	<b>3.33</b>	<b>4.05</b>	<b>4.61</b>	<b>5.00</b>	<b>5.18</b>	<b>5.26</b>	<b>5.34</b>
52°	<b>5.11</b>	<b>6.10</b>	<b>6.88</b>	<b>7.29</b>	<b>7.47</b>	<b>7.54</b>	<b>7.58</b>
60°	<b>5.41</b>	<b>6.42</b>	<b>7.14</b>	<b>7.49</b>	<b>7.68</b>	<b>7.76</b>	<b>7.82</b>
75°	<b>5.65</b>	<b>6.69</b>	<b>7.33</b>	<b>7.66</b>	<b>7.89</b>	<b>8.06</b>	<b>8.23</b>
90°	<b>5.72</b>	<b>6.90</b>	<b>7.53</b>	<b>7.78</b>	<b>7.94</b>	<b>8.19</b>	<b>8.63</b>
110°	<b>5.78</b>	<b>7.00</b>	<b>7.64</b>	<b>8.02</b>	<b>8.37</b>	<b>8.62</b>	<b>9.01</b>
120°	<b>5.62</b>	<b>6.82</b>	<b>7.54</b>	<b>7.95</b>	<b>8.35</b>	<b>8.78</b>	<b>9.44</b>
135°	<b>5.06</b>	<b>6.23</b>	<b>7.16</b>	<b>7.67</b>	<b>8.05</b>	<b>8.46</b>	<b>9.37</b>
150°	<b>4.28</b>	<b>5.39</b>	<b>6.33</b>	<b>7.08</b>	<b>7.49</b>	<b>7.81</b>	<b>8.41</b>
Run VMG	<b>3.71</b>	<b>4.66</b>	<b>5.49</b>	<b>6.13</b>	<b>6.52</b>	<b>7.08</b>	<b>7.83</b>
Gybe Angles	<b>144.3°</b>	<b>148.0°</b>	<b>147.8°</b>	<b>149.0°</b>	<b>151.5°</b>	<b>175.9°</b>	<b>178.2°</b>