



**ORC**

Offshore Racing Congress  
World leader in rating technology

**2019  
ORC Club  
Certificate**

**Rating Office**

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



**Certificate**

Number **003/19**  
Issued On **26/04/2019**  
ORC Ref **HUN10024864**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**

Default 1 703kg  
Maximum 1 703kg  
Minimum\* 1 277kg  
*\*when applied by the NoR and SI*  
Non Manual Pwr

**Special Scoring**

	ToD	ToT
Double H.GPH	436.9	1.3732
Double H.OSN	430.6	1.3935
Non Spin GPH	477.6	1.2563
Non Spin OSN	467.2	1.2841

**Sails Limitations**

Headsails 8 Spinnakers 6  
**Asymmetric on centerline**  
**Spinnaker configuration**  
Symmetric: **No**  
Asymmetric: **Yes 439.92**  
Flying H/S: **Yes 209.83**  
Spin. Pole: **No**

**Class Division Length**

**CDL = 18.263**

**Stability (Estimated)**

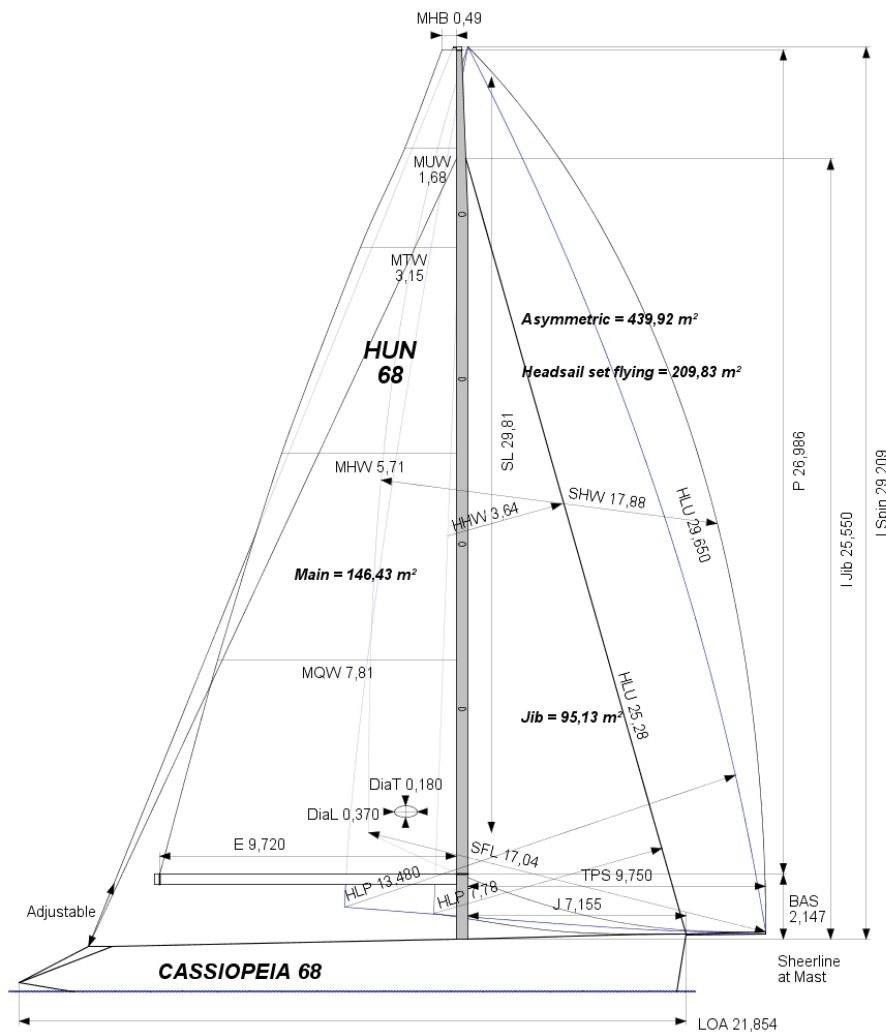
Limit Positive Stab.: **138.8°**  
Stability Index: **150.6**

**Owner**

Cassiopeia 68 Ltd  
18/2 South Street  
1102 Valetta  
MALTA

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

Signature



BOAT	GPH	HULL
Name <b>Cassiopeia 68</b> Sail Nr <b>HUN-68</b>	<b>430.7</b>	Data File <b>HUN68</b> LOA <b>21.854m</b> Offset File <b>cassiopeia.OFF</b> MB <b>5.238m</b> Displacement <b>22 998kg</b> Draft <b>4.376m</b>
<b>CLASS</b> Class <b>Marten 68</b> Designer <b>Reichel/Pugh</b> Builder <b>Marten Yachts</b> Series <b>01/2009</b> Age Date <b>01/2009</b> Age Allowance <b>0.325%</b>		IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.033%</b> Fwd Accom. <b>No</b> Construction <b>Carbon</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>Yes</b> Light Stanchions <b>No</b>
<b>COMMENTS</b>		IMSL <b>19.070m</b> VCGD <b>-0.573m</b> Sink <b>53.92kg/mm</b> RL <b>17.453m</b> VCGM <b>-0.591m</b> WS <b>71.76m<sup>2</sup></b> LSM0 <b>18.871m</b> Displacement/Length ratio <b>3.4222</b>
<b>PROPELLER</b> Installation <b>Shaft exposed</b> PRD <b>0.480</b> Type <b>Folding 3 blades</b> PIPA <b>0.0023</b>		Water Ballast <b>0</b> Trim Tab <b>No</b> BLR Index <b>0.0000</b>
		<b>CENTERBOARD</b> N/A

SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time on Distance	<b>423.1</b>			<b>478.5</b>	
Time on Time	<b>1.4183</b>			<b>1.4107</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>486.3</b>	<b>384.6</b>	<b>339.9</b>	<b>643.1</b>	<b>480.8</b>	<b>416.4</b>
Time on Time	<b>1.3879</b>	<b>1.7552</b>	<b>1.9856</b>	<b>1.0496</b>	<b>1.4038</b>	<b>1.6212</b>

# 2019

## ORC Club Certificate Appendix

### BOAT

Name	<b>Cassiopeia 68</b>	Certificate Number	<b>003/19</b>
Sail Nr	<b>HUN-68</b>	Issued On	<b>26/04/2019</b>

### TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>692.9</b>	<b>586.4</b>	<b>534.8</b>	<b>505.4</b>	<b>490.0</b>	<b>479.9</b>	<b>462.1</b>
52°	<b>447.1</b>	<b>387.9</b>	<b>365.1</b>	<b>353.2</b>	<b>347.0</b>	<b>343.3</b>	<b>335.0</b>
60°	<b>415.6</b>	<b>368.0</b>	<b>352.3</b>	<b>342.5</b>	<b>336.4</b>	<b>332.2</b>	<b>324.6</b>
75°	<b>386.6</b>	<b>350.6</b>	<b>337.4</b>	<b>328.7</b>	<b>319.8</b>	<b>312.9</b>	<b>304.8</b>
90°	<b>381.7</b>	<b>345.8</b>	<b>328.8</b>	<b>317.0</b>	<b>308.1</b>	<b>300.1</b>	<b>284.4</b>
110°	<b>408.3</b>	<b>359.1</b>	<b>340.2</b>	<b>323.0</b>	<b>304.6</b>	<b>288.5</b>	<b>265.7</b>
120°	<b>452.0</b>	<b>378.3</b>	<b>342.7</b>	<b>323.1</b>	<b>303.7</b>	<b>283.2</b>	<b>261.8</b>
135°	<b>522.7</b>	<b>413.9</b>	<b>358.3</b>	<b>333.7</b>	<b>309.9</b>	<b>286.6</b>	<b>252.0</b>
150°	<b>628.2</b>	<b>491.5</b>	<b>409.9</b>	<b>364.4</b>	<b>337.2</b>	<b>320.7</b>	<b>277.7</b>
Run VMG	<b>725.4</b>	<b>567.5</b>	<b>473.4</b>	<b>421.9</b>	<b>391.4</b>	<b>370.3</b>	<b>320.7</b>

### Selected Courses

Windward / Leeward	<b>709.2</b>	<b>577.0</b>	<b>504.1</b>	<b>463.7</b>	<b>440.7</b>	<b>425.1</b>	<b>391.4</b>
Circular Random	<b>586.0</b>	<b>476.8</b>	<b>418.6</b>	<b>384.5</b>	<b>362.5</b>	<b>346.6</b>	<b>322.3</b>
Coastal / Long Distance	<b>710.8</b>	<b>540.8</b>	<b>452.5</b>	<b>401.1</b>	<b>372.5</b>	<b>349.2</b>	<b>309.5</b>
Non Spinnaker	<b>675.7</b>	<b>538.1</b>	<b>462.5</b>	<b>417.0</b>	<b>387.6</b>	<b>367.0</b>	<b>338.9</b>

### Velocity Prediction in Knots for True Wind Speeds

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.9°</b>	<b>41.8°</b>	<b>40.0°</b>	<b>38.5°</b>	<b>38.1°</b>	<b>37.4°</b>	<b>36.3°</b>
Beat VMG	<b>5.20</b>	<b>6.14</b>	<b>6.73</b>	<b>7.12</b>	<b>7.35</b>	<b>7.50</b>	<b>7.79</b>
52°	<b>8.05</b>	<b>9.28</b>	<b>9.86</b>	<b>10.19</b>	<b>10.37</b>	<b>10.49</b>	<b>10.75</b>
60°	<b>8.66</b>	<b>9.78</b>	<b>10.22</b>	<b>10.51</b>	<b>10.70</b>	<b>10.84</b>	<b>11.09</b>
75°	<b>9.31</b>	<b>10.27</b>	<b>10.67</b>	<b>10.95</b>	<b>11.26</b>	<b>11.51</b>	<b>11.81</b>
90°	<b>9.43</b>	<b>10.41</b>	<b>10.95</b>	<b>11.36</b>	<b>11.68</b>	<b>11.99</b>	<b>12.66</b>
110°	<b>8.82</b>	<b>10.03</b>	<b>10.58</b>	<b>11.15</b>	<b>11.82</b>	<b>12.48</b>	<b>13.55</b>
120°	<b>7.96</b>	<b>9.52</b>	<b>10.51</b>	<b>11.14</b>	<b>11.85</b>	<b>12.71</b>	<b>13.75</b>
135°	<b>6.89</b>	<b>8.70</b>	<b>10.05</b>	<b>10.79</b>	<b>11.62</b>	<b>12.56</b>	<b>14.29</b>
150°	<b>5.73</b>	<b>7.32</b>	<b>8.78</b>	<b>9.88</b>	<b>10.68</b>	<b>11.23</b>	<b>12.96</b>
Run VMG	<b>4.96</b>	<b>6.34</b>	<b>7.61</b>	<b>8.53</b>	<b>9.20</b>	<b>9.72</b>	<b>11.23</b>
Gybe Angles	<b>141.2°</b>	<b>139.9°</b>	<b>145.4°</b>	<b>151.0°</b>	<b>153.1°</b>	<b>150.4°</b>	<b>146.0°</b>