



**ORC**  
Offshore Racing Congress  
World leader in rating technology

**2020**  
**ORC Club**  
**Certificate**

**Rating Office**

**Offshore**  
**Racing**  
**Congress**



**Certificate**

Number **US6591**  
Issued On **24/08/2020**  
ORC Ref **03410000UA**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 604kg  
Maximum **604kg**  
Minimum\* **453kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>637.5</b>	<b>0.9412</b>
Non Spin OSN	<b>621.4</b>	<b>0.9656</b>

**Sails Limitations**

Headsails **5** Spinnakers **4**

**Spinnaker configuration**  
Symmetric: **Yes** **94.45**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

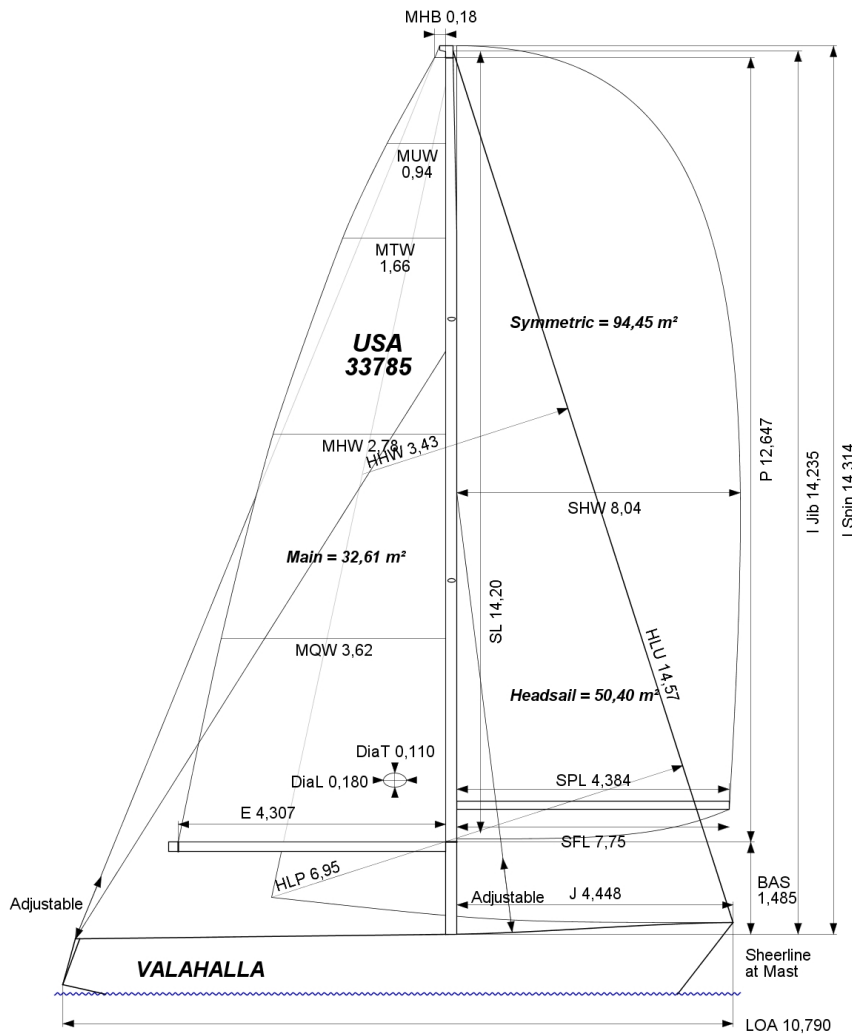
**Class Division Length**

**CDL = 9.101**

**Stability (Estimated)**

Limit Positive Stab.: **112.0°**  
Stability Index: **108.4**

**Owner**



BOAT		GPH	HULL			
Name <b>VALAHALLA</b> Sail Nr <b>USA 33785</b>		<b>614.8</b>	Data File <b>US6591</b>	LOA <b>10.790m</b>		
			Offset File <b>US17521.OFF</b>	MB <b>3.639m</b>		
			Displacement <b>4,607kg</b>	Draft <b>2.115m</b>		
<b>CLASS</b>			IMS Division <b>Performance</b>	Dynamic All. <b>0.000%</b>		
Class <b>J35</b>			Plan Review	Construction <b>Cored</b>		
Designer <b>JOHNSTONE,R</b>			Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
Builder <b>TILLOTSON-PEARSON</b>			Crew Arm Ex <b>0.00</b>	Carbon Rudder <b>No</b>		
Series <b>05/1983</b>				Light Stanchions <b>No</b>		
Age Date <b>01/1984</b>			IMSL <b>9.147m</b>	VCGD <b>-0.072m</b>		
Age Allowance <b>0.487%</b>			RL <b>9.057m</b>	VCGM <b>-0.007m</b>		
<b>COMMENTS</b>			WS <b>23.30m²</b>			
			LSM0 <b>9.129m</b>	Displacement/Length ratio <b>6.0555</b>		
			Water Ballast <b>0</b>	Trim Tab <b>No</b>		
			BLR Index <b>0.0000</b>			
<b>PROPELLER</b>			<b>CENTERBOARD</b>			
Installation <b>Shaft exposed</b>	PRD <b>0.409</b>		<b>N/A</b>			
Type <b>Folding 2 blades</b>	PIPA <b>0.0006</b>					
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>598.9</b>			<b>663.7</b>		
Time on Time	<b>1.0018</b>			<b>1.0171</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>689.9</b>	<b>548.9</b>	<b>495.1</b>	<b>884.5</b>	<b>666.1</b>	<b>586.2</b>
Time on Time	<b>0.9784</b>	<b>1.2297</b>	<b>1.3634</b>	<b>0.7631</b>	<b>1.0133</b>	<b>1.1514</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>			
Name	<b>VALAHALLA</b>	Certificate Number	<b>US6591</b>
Sail Nr	<b>USA 33785</b>	Issued On	<b>24/08/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>969.6</b>	<b>810.5</b>	<b>731.5</b>	<b>701.6</b>	<b>687.4</b>	<b>680.0</b>	<b>673.4</b>
52°	<b>642.4</b>	<b>550.7</b>	<b>519.2</b>	<b>507.7</b>	<b>501.8</b>	<b>498.5</b>	<b>496.4</b>
60°	<b>610.0</b>	<b>535.3</b>	<b>509.1</b>	<b>496.2</b>	<b>489.4</b>	<b>485.3</b>	<b>481.9</b>
75°	<b>585.9</b>	<b>525.3</b>	<b>500.6</b>	<b>483.6</b>	<b>470.9</b>	<b>463.2</b>	<b>455.8</b>
90°	<b>592.1</b>	<b>525.7</b>	<b>499.1</b>	<b>479.8</b>	<b>462.1</b>	<b>447.3</b>	<b>430.2</b>
110°	<b>636.8</b>	<b>534.1</b>	<b>496.6</b>	<b>471.1</b>	<b>449.2</b>	<b>436.2</b>	<b>416.1</b>
120°	<b>653.3</b>	<b>543.0</b>	<b>500.9</b>	<b>473.2</b>	<b>447.0</b>	<b>424.8</b>	<b>396.9</b>
135°	<b>718.0</b>	<b>584.8</b>	<b>520.8</b>	<b>490.5</b>	<b>463.9</b>	<b>437.9</b>	<b>390.1</b>
150°	<b>846.2</b>	<b>676.3</b>	<b>573.9</b>	<b>519.3</b>	<b>491.4</b>	<b>466.9</b>	<b>420.0</b>
Run VMG	<b>977.1</b>	<b>780.9</b>	<b>661.8</b>	<b>587.1</b>	<b>535.2</b>	<b>502.8</b>	<b>455.4</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>973.3</b>	<b>795.7</b>	<b>696.7</b>	<b>644.4</b>	<b>611.3</b>	<b>591.4</b>	<b>564.4</b>
Circular Random	<b>832.9</b>	<b>678.5</b>	<b>597.3</b>	<b>551.0</b>	<b>522.6</b>	<b>503.8</b>	<b>478.7</b>
Coastal / Long Distance	<b>973.7</b>	<b>750.6</b>	<b>633.9</b>	<b>569.8</b>	<b>534.1</b>	<b>505.4</b>	<b>460.6</b>
Non Spinnaker	<b>872.4</b>	<b>707.0</b>	<b>618.9</b>	<b>568.0</b>	<b>536.6</b>	<b>515.8</b>	<b>488.2</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>42.0°</b>	<b>41.3°</b>	<b>39.0°</b>	<b>37.5°</b>	<b>36.8°</b>	<b>36.4°</b>	<b>36.0°</b>
Beat VMG	<b>3.71</b>	<b>4.44</b>	<b>4.92</b>	<b>5.13</b>	<b>5.24</b>	<b>5.29</b>	<b>5.35</b>
52°	<b>5.60</b>	<b>6.54</b>	<b>6.93</b>	<b>7.09</b>	<b>7.17</b>	<b>7.22</b>	<b>7.25</b>
60°	<b>5.90</b>	<b>6.72</b>	<b>7.07</b>	<b>7.26</b>	<b>7.36</b>	<b>7.42</b>	<b>7.47</b>
75°	<b>6.14</b>	<b>6.85</b>	<b>7.19</b>	<b>7.44</b>	<b>7.65</b>	<b>7.77</b>	<b>7.90</b>
90°	<b>6.08</b>	<b>6.85</b>	<b>7.21</b>	<b>7.50</b>	<b>7.79</b>	<b>8.05</b>	<b>8.37</b>
110°	<b>5.65</b>	<b>6.74</b>	<b>7.25</b>	<b>7.64</b>	<b>8.01</b>	<b>8.25</b>	<b>8.65</b>
120°	<b>5.51</b>	<b>6.63</b>	<b>7.19</b>	<b>7.61</b>	<b>8.05</b>	<b>8.47</b>	<b>9.07</b>
135°	<b>5.01</b>	<b>6.16</b>	<b>6.91</b>	<b>7.34</b>	<b>7.76</b>	<b>8.22</b>	<b>9.23</b>
150°	<b>4.25</b>	<b>5.32</b>	<b>6.27</b>	<b>6.93</b>	<b>7.33</b>	<b>7.71</b>	<b>8.57</b>
Run VMG	<b>3.68</b>	<b>4.61</b>	<b>5.44</b>	<b>6.13</b>	<b>6.73</b>	<b>7.16</b>	<b>7.91</b>
Gybe Angles	<b>145.5°</b>	<b>149.5°</b>	<b>151.0°</b>	<b>159.0°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>