



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

**2020  
ORC Club  
Certificate**

**Rating Office**

**Offshore  
Racing  
Congress**



**Certificate**

Number **300520**  
Issued On **31/05/2020**  
ORC Ref **03540000JHN**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 396kg  
Maximum **396kg**  
Minimum\* **297kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>757.4</b>	<b>0.7922</b>
Non Spin OSN	<b>731.5</b>	<b>0.8202</b>

**Sails Limitations**

Headsails **1** Spinnakers **4**

**Spinnaker configuration**  
Symmetric: **Yes** **36.81**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

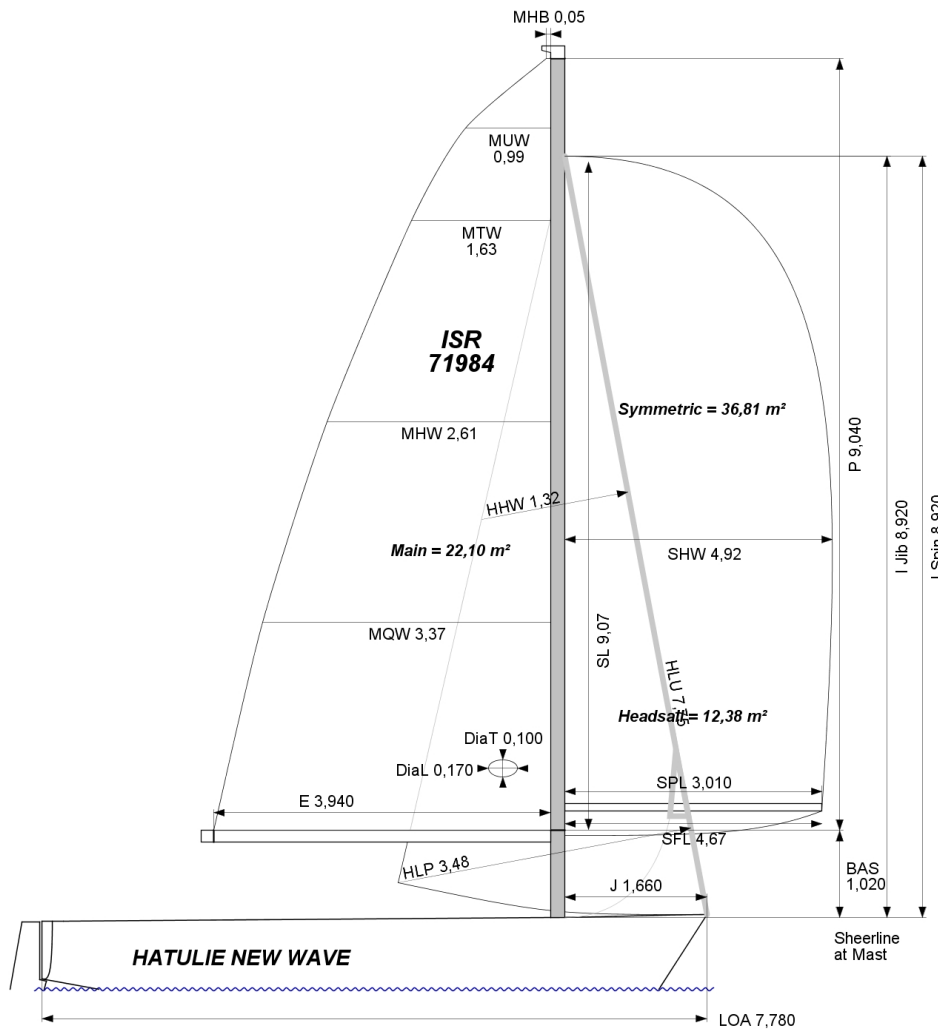
**Class Division Length**

**CDL = 6.586**

**Stability (Estimated)**

Limit Positive Stab.: **117.3°**  
Stability Index: **112.8**

**Owner**



BOAT		GPH	HULL			
Name <b>Hatulie New Wave</b> Sail Nr <b>ISR 71984</b>		<b>725.2</b>	Data File <b>ISR71984</b>	LOA <b>7.780m</b>		
			Offset File <b>Freedom25.off</b>	MB <b>2.560m</b>		
			Displacement <b>1,778kg</b>	Draft <b>1.361m</b>		
<b>CLASS</b>			IMS Division <b>Sportboat</b>	Dynamic All. <b>0.192%</b>		
Class <b>Freedom 25</b>			Plan Review	Construction <b>Solid</b>		
Designer <b>Gary Hoyt</b>			Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
Builder <b>TPI</b>			Crew Arm Ex	Carbon Rudder <b>No</b>		
Series <b>01/1981</b>				Light Stanchions <b>No</b>		
Age Date <b>01/1981</b>			IMSL <b>6.906m</b>	VCGD <b>-0.097m</b>		
Age Allowance <b>0.487%</b>			RL <b>6.266m</b>	VCGM <b>-0.074m</b>		
			WS <b>12.39m²</b>			
<b>COMMENTS</b>			LSM0 <b>6.785m</b>	Displacement/Length ratio <b>5.6922</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>0.235</b>		<b>N/A</b>			
Type <b>Solid 3 blades</b>	PIPA <b>0.0069</b>					
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>703.3</b>			<b>784.2</b>		
Time on Time	<b>0.8531</b>			<b>0.8608</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>833.5</b>	<b>641.6</b>	<b>571.4</b>	<b>1080.5</b>	<b>786.0</b>	<b>689.1</b>
Time on Time	<b>0.8098</b>	<b>1.0520</b>	<b>1.1814</b>	<b>0.6247</b>	<b>0.8588</b>	<b>0.9795</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>	
Name	<b>Hatulie New Wave</b>
Certificate Number	<b>300520</b>
Sail Nr	<b>ISR 71984</b>
Issued On	<b>31/05/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1259.3</b>	<b>1041.3</b>	<b>912.5</b>	<b>843.6</b>	<b>823.7</b>	<b>817.9</b>	<b>836.4</b>
52°	<b>813.8</b>	<b>680.9</b>	<b>619.8</b>	<b>593.3</b>	<b>582.0</b>	<b>577.6</b>	<b>577.3</b>
60°	<b>764.4</b>	<b>646.2</b>	<b>601.7</b>	<b>578.5</b>	<b>564.2</b>	<b>557.9</b>	<b>555.3</b>
75°	<b>730.8</b>	<b>625.7</b>	<b>587.9</b>	<b>563.9</b>	<b>542.5</b>	<b>526.6</b>	<b>515.1</b>
90°	<b>722.9</b>	<b>611.6</b>	<b>570.7</b>	<b>545.0</b>	<b>531.4</b>	<b>510.6</b>	<b>479.9</b>
110°	<b>720.7</b>	<b>607.2</b>	<b>564.7</b>	<b>529.5</b>	<b>498.7</b>	<b>475.9</b>	<b>449.9</b>
120°	<b>745.8</b>	<b>619.8</b>	<b>572.1</b>	<b>537.3</b>	<b>503.9</b>	<b>473.8</b>	<b>422.6</b>
135°	<b>827.9</b>	<b>675.5</b>	<b>598.0</b>	<b>561.8</b>	<b>528.1</b>	<b>495.7</b>	<b>431.2</b>
150°	<b>977.8</b>	<b>772.9</b>	<b>654.8</b>	<b>592.4</b>	<b>559.5</b>	<b>528.0</b>	<b>469.1</b>
Run VMG	<b>1129.1</b>	<b>892.3</b>	<b>751.2</b>	<b>658.1</b>	<b>599.2</b>	<b>565.8</b>	<b>506.8</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1194.2</b>	<b>966.8</b>	<b>831.8</b>	<b>750.8</b>	<b>711.5</b>	<b>691.8</b>	<b>671.6</b>
Circular Random	<b>1000.7</b>	<b>807.3</b>	<b>703.4</b>	<b>643.1</b>	<b>606.3</b>	<b>582.5</b>	<b>553.6</b>
Coastal / Long Distance	<b>1187.7</b>	<b>905.9</b>	<b>751.6</b>	<b>662.5</b>	<b>618.1</b>	<b>582.3</b>	<b>521.7</b>
Non Spinnaker	<b>1058.4</b>	<b>847.8</b>	<b>733.7</b>	<b>667.0</b>	<b>626.2</b>	<b>600.3</b>	<b>570.4</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>43.5°</b>	<b>43.3°</b>	<b>41.8°</b>	<b>39.4°</b>	<b>39.2°</b>	<b>39.2°</b>	<b>41.3°</b>
Beat VMG	<b>2.86</b>	<b>3.46</b>	<b>3.95</b>	<b>4.27</b>	<b>4.37</b>	<b>4.40</b>	<b>4.30</b>
52°	<b>4.42</b>	<b>5.29</b>	<b>5.81</b>	<b>6.07</b>	<b>6.19</b>	<b>6.23</b>	<b>6.24</b>
60°	<b>4.71</b>	<b>5.57</b>	<b>5.98</b>	<b>6.22</b>	<b>6.38</b>	<b>6.45</b>	<b>6.48</b>
75°	<b>4.93</b>	<b>5.75</b>	<b>6.12</b>	<b>6.38</b>	<b>6.64</b>	<b>6.84</b>	<b>6.99</b>
90°	<b>4.98</b>	<b>5.89</b>	<b>6.31</b>	<b>6.60</b>	<b>6.77</b>	<b>7.05</b>	<b>7.50</b>
110°	<b>5.00</b>	<b>5.93</b>	<b>6.38</b>	<b>6.80</b>	<b>7.22</b>	<b>7.56</b>	<b>8.00</b>
120°	<b>4.83</b>	<b>5.81</b>	<b>6.29</b>	<b>6.70</b>	<b>7.14</b>	<b>7.60</b>	<b>8.52</b>
135°	<b>4.35</b>	<b>5.33</b>	<b>6.02</b>	<b>6.41</b>	<b>6.82</b>	<b>7.26</b>	<b>8.35</b>
150°	<b>3.68</b>	<b>4.66</b>	<b>5.50</b>	<b>6.08</b>	<b>6.43</b>	<b>6.82</b>	<b>7.67</b>
Run VMG	<b>3.19</b>	<b>4.03</b>	<b>4.79</b>	<b>5.47</b>	<b>6.01</b>	<b>6.36</b>	<b>7.10</b>
Gybe Angles	<b>147.5°</b>	<b>151.5°</b>	<b>153.5°</b>	<b>170.0°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>