



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

**2020  
ORC Club  
Certificate**

**Rating Office**

**Offshore  
Racing  
Congress**



**Certificate**

Number **EST379**  
Issued On **29/05/2020**  
ORC Ref **03580000J7S**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 645kg  
Maximum **675kg**  
Minimum\* **506kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>659.5</b>	<b>0.9098</b>
Non Spin OSN	<b>640.6</b>	<b>0.9367</b>

**Sails Limitations**

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

**Spinnaker configuration**  
Symmetric: **Yes 96.74**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

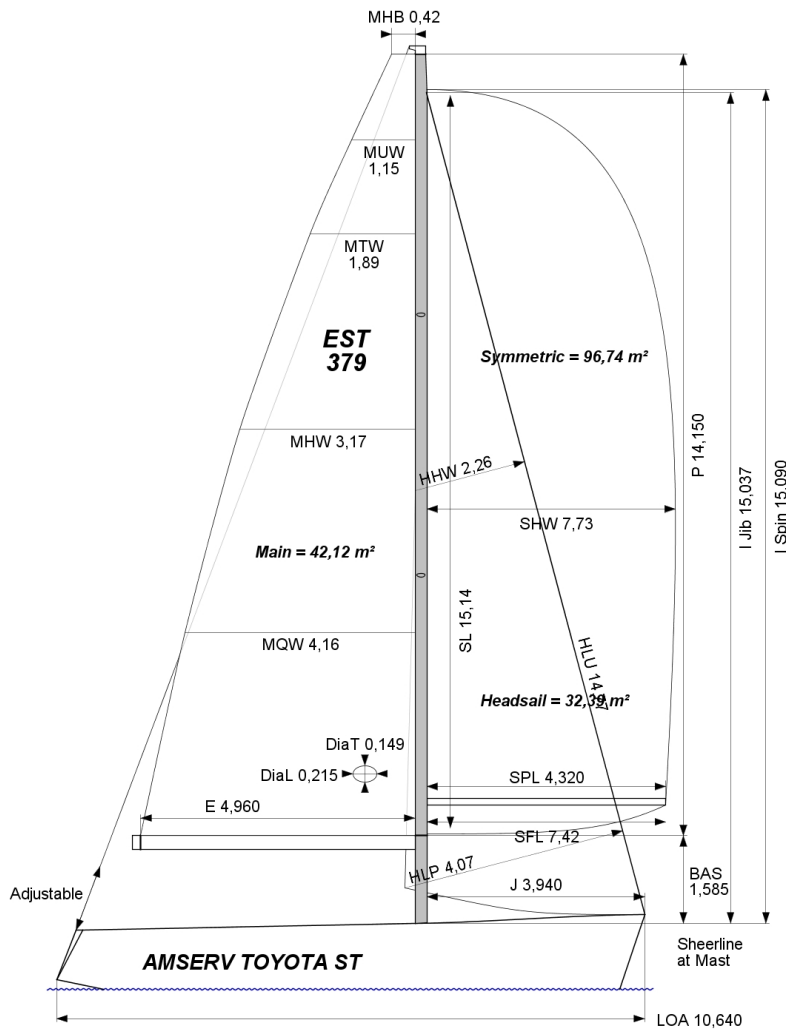
**Class Division Length**

**CDL = 8.937**

**Stability (Measured)**

Limit Positive Stab.: **119.1°**  
Stability Index: **121.3**

**Owner**



BOAT		GPH	HULL			
Name <b>AMSERV TOYOTA ST</b> Sail Nr <b>EST 379</b>		<b>626.4</b>	Data File <b>Est0379</b>	LOA <b>10.640m</b>		
			Offset File <b>EST379-2020.off</b>	MB <b>3.458m</b>		
			Displacement <b>5,722kg</b>	Draft <b>2.034m</b>		
<b>CLASS</b>			IMS Division <b>Cruiser/Racer</b>	Dynamic All. <b>0.125%</b>		
Class <b>First 36.7 mod</b>			Plan Review	Construction <b>Solid</b>		
Designer <b>B.Farr</b>			Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
Builder <b>Beneteau S.A.</b>			Crew Arm Ex	Carbon Rudder <b>Yes</b>		
Series <b>01/2001</b>			Light Stanchions			
Age Date <b>05/2005</b>			IMSL <b>9.596m</b>	VCGD <b>0.031m</b>	Sink <b>19.32kg/mm</b>	
Age Allowance <b>0.487%</b>			RL <b>8.289m</b>	VCGM <b>0.016m</b>	WS <b>26.16m²</b>	
<b>COMMENTS</b>			LSM0 <b>9.551m</b>	Displacement/Length ratio <b>6.5675</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>Strut</b>	PRD <b>0.410</b>		<b>N/A</b>			
Type <b>Folding 2 blades</b>	PBW <b>0.130</b>					
	PIPA <b>0.0027</b>					
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>610.0</b>			<b>681.3</b>		
Time on Time	<b>0.9837</b>			<b>0.9908</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>713.2</b>	<b>555.6</b>	<b>500.4</b>	<b>920.1</b>	<b>682.6</b>	<b>599.5</b>
Time on Time	<b>0.9465</b>	<b>1.2148</b>	<b>1.3488</b>	<b>0.7336</b>	<b>0.9889</b>	<b>1.1260</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>			
Name	<b>AMSERV TOYOTA ST</b>	Certificate Number	<b>EST379</b>
Sail Nr	<b>EST 379</b>	Issued On	<b>29/05/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1058.4</b>	<b>879.7</b>	<b>777.0</b>	<b>733.4</b>	<b>719.6</b>	<b>715.9</b>	<b>706.3</b>
52°	<b>691.1</b>	<b>583.9</b>	<b>529.9</b>	<b>509.7</b>	<b>503.1</b>	<b>500.4</b>	<b>494.9</b>
60°	<b>651.9</b>	<b>556.8</b>	<b>514.8</b>	<b>496.9</b>	<b>489.2</b>	<b>485.9</b>	<b>481.7</b>
75°	<b>622.1</b>	<b>538.1</b>	<b>504.0</b>	<b>485.4</b>	<b>472.3</b>	<b>464.0</b>	<b>458.2</b>
90°	<b>627.6</b>	<b>534.3</b>	<b>495.8</b>	<b>481.8</b>	<b>465.1</b>	<b>449.6</b>	<b>429.1</b>
110°	<b>627.4</b>	<b>525.5</b>	<b>487.4</b>	<b>463.2</b>	<b>443.5</b>	<b>431.7</b>	<b>412.9</b>
120°	<b>645.0</b>	<b>535.4</b>	<b>492.3</b>	<b>466.3</b>	<b>441.6</b>	<b>419.8</b>	<b>394.8</b>
135°	<b>710.8</b>	<b>580.0</b>	<b>513.7</b>	<b>483.5</b>	<b>459.1</b>	<b>434.6</b>	<b>389.8</b>
150°	<b>838.9</b>	<b>670.1</b>	<b>569.0</b>	<b>512.3</b>	<b>484.2</b>	<b>461.4</b>	<b>417.0</b>
Run VMG	<b>968.6</b>	<b>773.8</b>	<b>655.9</b>	<b>580.7</b>	<b>527.4</b>	<b>494.2</b>	<b>449.5</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1013.5</b>	<b>826.7</b>	<b>716.5</b>	<b>657.0</b>	<b>623.5</b>	<b>605.1</b>	<b>577.9</b>
Circular Random	<b>857.3</b>	<b>694.4</b>	<b>607.9</b>	<b>558.5</b>	<b>528.7</b>	<b>509.4</b>	<b>484.0</b>
Coastal / Long Distance	<b>1009.0</b>	<b>776.2</b>	<b>647.1</b>	<b>576.6</b>	<b>539.5</b>	<b>510.4</b>	<b>462.2</b>
Non Spinnaker	<b>917.3</b>	<b>736.6</b>	<b>639.1</b>	<b>582.5</b>	<b>548.0</b>	<b>525.6</b>	<b>496.8</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>42.8°</b>	<b>41.6°</b>	<b>40.9°</b>	<b>39.8°</b>	<b>39.4°</b>	<b>39.4°</b>	<b>40.4°</b>
Beat VMG	<b>3.40</b>	<b>4.09</b>	<b>4.63</b>	<b>4.91</b>	<b>5.00</b>	<b>5.03</b>	<b>5.10</b>
52°	<b>5.21</b>	<b>6.17</b>	<b>6.79</b>	<b>7.06</b>	<b>7.16</b>	<b>7.19</b>	<b>7.27</b>
60°	<b>5.52</b>	<b>6.47</b>	<b>6.99</b>	<b>7.25</b>	<b>7.36</b>	<b>7.41</b>	<b>7.47</b>
75°	<b>5.79</b>	<b>6.69</b>	<b>7.14</b>	<b>7.42</b>	<b>7.62</b>	<b>7.76</b>	<b>7.86</b>
90°	<b>5.74</b>	<b>6.74</b>	<b>7.26</b>	<b>7.47</b>	<b>7.74</b>	<b>8.01</b>	<b>8.39</b>
110°	<b>5.74</b>	<b>6.85</b>	<b>7.39</b>	<b>7.77</b>	<b>8.12</b>	<b>8.34</b>	<b>8.72</b>
120°	<b>5.58</b>	<b>6.72</b>	<b>7.31</b>	<b>7.72</b>	<b>8.15</b>	<b>8.58</b>	<b>9.12</b>
135°	<b>5.06</b>	<b>6.21</b>	<b>7.01</b>	<b>7.45</b>	<b>7.84</b>	<b>8.28</b>	<b>9.24</b>
150°	<b>4.29</b>	<b>5.37</b>	<b>6.33</b>	<b>7.03</b>	<b>7.43</b>	<b>7.80</b>	<b>8.63</b>
Run VMG	<b>3.72</b>	<b>4.65</b>	<b>5.49</b>	<b>6.20</b>	<b>6.83</b>	<b>7.28</b>	<b>8.01</b>
Gybe Angles	<b>145.0°</b>	<b>149.5°</b>	<b>151.5°</b>	<b>158.0°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>