



World Leader in Rating Technology

## 2018 ORC Club Certificate

### Rating Office

EYU  
Regati 1  
11911, Tallinn  
Estonia

### Certificate

Number **EST646**  
Issued On **8/31/2018**  
ORC Ref **EST0000342**  
VPP Ver. **2018 1.00**  
Valid until **12/31/2018**

### Crew Weight

Default 629kg  
Maximum **660kg**  
Minimum\* **495kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

### Special Scoring

	ToD	ToT
Double H.GPH	<b>625.0</b>	<b>0.9600</b>
Double H.OSN	<b>609.0</b>	<b>0.9852</b>
Non Spin GPH	<b>655.7</b>	<b>0.9151</b>
Non Spin OSN	<b>635.1</b>	<b>0.9448</b>

### Sails Limitations

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

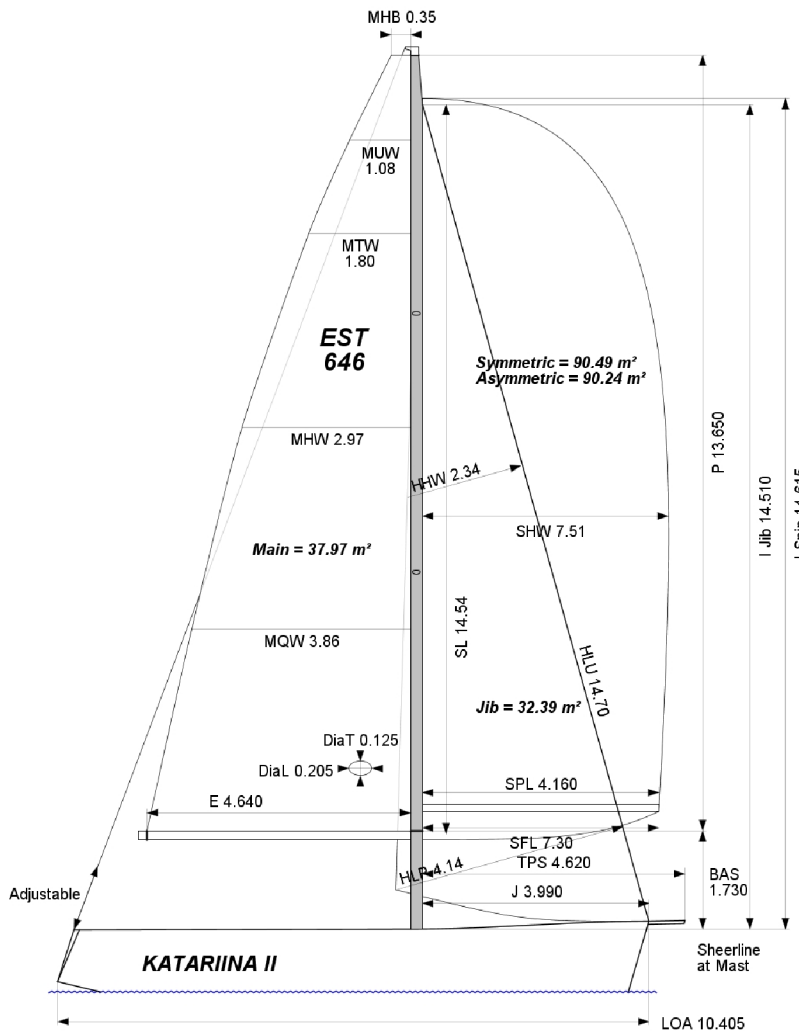
**Spinnaker configuration**  
Symmetric: **Yes** **90.49**  
Asymmetric: **Yes** **90.24**  
Flying H/S: **No**  
Spin. Pole: **Yes**

### Class Division Length

**CDL = 9.048**

### Stability (Estimated)

Limit Positive Stab.: **114.5°**  
Stability Index: **113.1**



BOAT		GPH	HULL				
Name	<b>KATARIINA II</b>	<b>620.8</b>	Data File	<b>Est0646</b>	LOA	<b>10.405m</b>	
Sail Nr	<b>EST 646</b>		Offset File	<b>EST646_2018CL.</b>	MB	<b>3.476m</b>	
CLASS			Displacement	<b>4,637kg</b>	Draft	<b>2.080m</b>	
Class	<b>ARCONA 340</b>		IMS Division	<b>Cruiser/Racer</b>	Dynamic All.	<b>0.151%</b>	
Designer	<b>STEFAN QVIBERG</b>		Fwd Accom.	<b>Yes</b>	Construction	<b>Cored</b>	
Builder	<b>ARCONA YACHTS</b>		Fiber Rigging	<b>No</b>	Aramid Core	<b>No</b>	
Series	<b>05/2009</b>		Crew Arm Ex		Carbon Rudder	<b>No</b>	
Age Date	<b>05/2010</b>				Light Stanchions	<b>No</b>	
Age Allowance	<b>0.292%</b>		IMSL	<b>9.398m</b>	VCGD	<b>0.043m</b>	
COMMENTS			RL	<b>8.697m</b>	VCGM	<b>0.047m</b>	
Boat weight declared			WS	<b>24.87m<sup>2</sup></b>	LSM0	<b>9.387m</b>	
PROPELLER			Displacement/Length ratio	<b>5.6060</b>	Water Ballast	<b>0</b>	
Installation	<b>Strut</b>	PRD	<b>0.425</b>	Trim Tab	<b>No</b>	BLR Index	<b>0.0000</b>
Type	<b>Folding 2 blades</b>	PBW	<b>0.100</b>	CENTERBOARD			
		PIPA	<b>0.0033</b>	N/A			
SCORING OPTIONS							
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD			
Time on Distance	<b>602.9</b>			<b>674.1</b>			
Time on Time	<b>0.9952</b>			<b>1.0013</b>			
Triple Number	Low	Medium	High	Low	Medium	High	
Time on Distance	<b>712.6</b>	<b>549.2</b>	<b>489.4</b>	<b>920.1</b>	<b>675.7</b>	<b>589.5</b>	
Time on Time	<b>0.9472</b>	<b>1.2290</b>	<b>1.3792</b>	<b>0.7336</b>	<b>0.9990</b>	<b>1.1451</b>	

<b>BOAT</b>		
Name	<b>KATARIINA II</b>	Sail Nr <b>EST 646</b>
File	<b>Est0646</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Club Estimated VCG</b>		
Flotation date	<b>11/06/2018</b>	SG <b>1.0000</b>
FFM	<b>1.246</b>	FF <b>1.253</b> SFFP <b>0.220</b>
FAM	<b>1.102</b>	FA <b>1.108</b> SAFP <b>10.028</b>
LCF from stem on CL / on sheer	<b>5.666 / 5.904</b>	
Maximum beam station from stem	<b>6.419</b>	
	RM Measured	<b>135.7kg·m</b>
	RM Default	<b>131.7kg·m</b>
Limit of positive stability / Stab.Index	<b>114.5° / 113.1</b>	
Freeboard at mast at 3.990	<b>1.113</b>	



**2018**  
Measurements  
Datasheet

<b>RIG</b>							
Forestay Tension	<b>Aft</b>	Spreaders	<b>2</b>				
Inner Stay	<b>None Fitted</b>	Runners	<b>0</b>				
Carbon Mast	<b>Yes</b>	Jumper Struts	<b>None</b>				
Taper Hollows	<b>No</b>	Jib Furler	<b>No</b>				
Fiber Rigging	<b>No</b>	Main Furler	<b>No</b>				
Lenticular Rigging	<b>No</b>	Without Backstay	<b>No</b>				
Articulated Bowsprit	<b>No</b>						
P	<b>13.650</b>	E	<b>4.640</b>	MDT1	<b>0.125</b>	MW	<b>0.205</b>
IG	<b>14.510</b>	J	<b>3.990</b>	MDL1	<b>0.205</b>	GO	<b>0.235</b>
ISP	<b>14.615</b>	SFJ		MDT2	<b>0.105</b>	BD	
BAS	<b>1.730</b>	SPL	<b>4.160</b>	MDL2	<b>0.145</b>	MWT	<b>137.90</b>
FSP	<b>0.068</b>	TPS	<b>4.620</b>	TL	<b>0.910</b>	MCG	<b>4.450</b>

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<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>		
Installation	<b>Strut</b>	PRD <b>0.425</b>
Type	<b>Folding 2 blades</b>	PBW <b>0.100</b>
Twin Screw	<b>No</b>	PIPA <b>0.0033</b>
ST1	<b>0.042</b>	ST3 <b>0.180</b> ST5 <b>0.264</b>
ST2	<b>0.180</b>	ST4 <b>0.112</b> EDL <b>2.420</b>

<b>COMMENTS</b>	
Boat weight declared	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS INVENTORY</b>																
<b>MAINSAIL (1)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
4a	0.350	1.08	1.80	2.97	3.86	37.97	EST 1	20/06/2016	NorthSails	Carbon						
<b>HEADSAILS (8)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
12	0.09	0.71		2.34	3.26	4.14	14.70	104%	32.40			Sisil	04/11/2017		Unknown	SuperLight2018
10a	0.10	0.69	1.30	2.31	3.24	4.12	14.50	103%	32.21	Y		EST 1	20/06/2016	NorthSails	Carbon	
11a	0.10	0.69	1.30	2.32	3.25	4.13	14.45	104%	32.18	Y		EST 1	20/06/2016	NorthSails	Carbon	
13	0.10	0.67	1.26	2.32	3.26	4.12	14.46	103%	32.09	Y				NorthSails	Unknown	JibTop 2016
12a	0.10	0.67	1.27	2.28	3.16	4.08	14.45	102%	31.54	Y		EST 1	20/06/2016	NorthSails	Unknown	
6	0.08	0.71	1.31	2.34	3.20	4.08	14.16	102%	31.37	Y		EST 2	19/06/2014	North	Unknown	LIGHT-MEDIUM
<b>SYMMETRIC SPINNAKERS (7)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
10	14.54	14.54	14.54	7.51	7.30	90.49	Hemamali	23/02/2018		Unknown	S-1,5					
8	14.60	14.60	14.60	7.47	7.17	90.16	D206	08/01/2014	NorthSails	Unknown	S-4					
7	14.60	14.60	14.60	7.47	7.17	90.16	D206	08/01/2014	NorthSails	Unknown	S-1,5					
6	14.60	14.60	14.60	7.47	7.17	90.16	D206	05/04/2011	NorthSails	Unknown	LIGHT					
<b>ASYMMETRIC SPINNAKERS (1)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
4	14.80	13.43	14.12	7.71	7.52	90.24	asym	Hemamali	23/02/2018		Unknown	A-1				



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## ORC Club Certificate Appendix

<b>BOAT</b>			
Name	<b>KATARIINA II</b>	Certificate Number	<b>EST646</b>
Sail Nr	<b>EST 646</b>	Issued On	<b>8/31/2018</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1049.8</b>	<b>865.6</b>	<b>760.0</b>	<b>716.0</b>	<b>702.1</b>	<b>697.5</b>	<b>686.8</b>
52°	<b>690.0</b>	<b>577.9</b>	<b>523.4</b>	<b>503.2</b>	<b>496.8</b>	<b>493.9</b>	<b>487.6</b>
60°	<b>654.0</b>	<b>553.3</b>	<b>509.8</b>	<b>490.8</b>	<b>482.7</b>	<b>478.9</b>	<b>473.3</b>
75°	<b>627.5</b>	<b>536.8</b>	<b>500.2</b>	<b>479.1</b>	<b>463.2</b>	<b>454.0</b>	<b>447.6</b>
90°	<b>628.6</b>	<b>526.2</b>	<b>488.9</b>	<b>471.0</b>	<b>457.2</b>	<b>439.1</b>	<b>416.9</b>
110°	<b>625.5</b>	<b>522.5</b>	<b>483.2</b>	<b>454.8</b>	<b>429.9</b>	<b>413.8</b>	<b>390.8</b>
120°	<b>645.3</b>	<b>535.3</b>	<b>490.6</b>	<b>461.0</b>	<b>432.7</b>	<b>406.8</b>	<b>367.6</b>
135°	<b>718.9</b>	<b>584.5</b>	<b>515.0</b>	<b>482.1</b>	<b>454.4</b>	<b>427.5</b>	<b>374.0</b>
150°	<b>852.5</b>	<b>676.0</b>	<b>572.2</b>	<b>513.1</b>	<b>482.8</b>	<b>457.1</b>	<b>408.5</b>
Run VMG	<b>984.4</b>	<b>780.6</b>	<b>659.9</b>	<b>583.1</b>	<b>529.2</b>	<b>494.0</b>	<b>444.6</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1017.1</b>	<b>823.1</b>	<b>709.9</b>	<b>649.6</b>	<b>615.7</b>	<b>595.7</b>	<b>565.7</b>
Circular Random	<b>855.8</b>	<b>690.5</b>	<b>602.1</b>	<b>551.1</b>	<b>519.7</b>	<b>498.8</b>	<b>470.4</b>
Coastal / Long Distance	<b>1013.8</b>	<b>773.0</b>	<b>641.4</b>	<b>569.1</b>	<b>531.4</b>	<b>500.5</b>	<b>447.6</b>
Non Spinnaker	<b>918.1</b>	<b>734.6</b>	<b>635.1</b>	<b>576.9</b>	<b>541.0</b>	<b>517.6</b>	<b>487.3</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>42.7°</b>	<b>41.4°</b>	<b>40.3°</b>	<b>38.8°</b>	<b>39.0°</b>	<b>39.0°</b>	<b>39.0°</b>
Beat VMG	<b>3.43</b>	<b>4.16</b>	<b>4.74</b>	<b>5.03</b>	<b>5.13</b>	<b>5.16</b>	<b>5.24</b>
52°	<b>5.22</b>	<b>6.23</b>	<b>6.88</b>	<b>7.15</b>	<b>7.25</b>	<b>7.29</b>	<b>7.38</b>
60°	<b>5.50</b>	<b>6.51</b>	<b>7.06</b>	<b>7.34</b>	<b>7.46</b>	<b>7.52</b>	<b>7.61</b>
75°	<b>5.74</b>	<b>6.71</b>	<b>7.20</b>	<b>7.51</b>	<b>7.77</b>	<b>7.93</b>	<b>8.04</b>
90°	<b>5.73</b>	<b>6.84</b>	<b>7.36</b>	<b>7.64</b>	<b>7.87</b>	<b>8.20</b>	<b>8.64</b>
110°	<b>5.76</b>	<b>6.89</b>	<b>7.45</b>	<b>7.91</b>	<b>8.37</b>	<b>8.70</b>	<b>9.21</b>
120°	<b>5.58</b>	<b>6.73</b>	<b>7.34</b>	<b>7.81</b>	<b>8.32</b>	<b>8.85</b>	<b>9.79</b>
135°	<b>5.01</b>	<b>6.16</b>	<b>6.99</b>	<b>7.47</b>	<b>7.92</b>	<b>8.42</b>	<b>9.62</b>
150°	<b>4.22</b>	<b>5.33</b>	<b>6.29</b>	<b>7.02</b>	<b>7.46</b>	<b>7.88</b>	<b>8.81</b>
Run VMG	<b>3.66</b>	<b>4.61</b>	<b>5.46</b>	<b>6.17</b>	<b>6.80</b>	<b>7.29</b>	<b>8.10</b>
Gybe Angles	<b>145.0°</b>	<b>149.1°</b>	<b>151.4°</b>	<b>157.5°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>