



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

**Rating Office**  
**Hellenic Sailing Federation**  
**Offshore Committee**  
**Επιτροπή**  
**Ανοικτής Θαλάσσης**  
**Ελληνικής**  
**Ιστιοπλοϊκής Ομοσπονδίας**



**Certificate**  
 Number **01994**  
 Issued On **21/10/2020**  
 ORC Ref **03420000S8K**  
 VPP Ver. **2020 1.02**  
 Valid until **28/02/2021**

**Crew Weight**

Default	876kg
Maximum	<b>380kg</b>
Minimum*	<b>285kg</b>

*\*when applied by the NoR and SI*  
 Non Manual Pwr **No**

**Special Scoring**

ToD	ToT
Non Spin GPH <b>713.7</b>	<b>0.8407</b>
Non Spin OSN <b>685.4</b>	<b>0.8754</b>

**Sails Limitations**

Headsails **5** Spinnakers **0**  
**Woven Polyester**

**Spinnaker configuration**

Symmetric: **No**  
 Asymmetric: **No**  
 Flying H/S: **No**  
 Spin. Pole: **No**

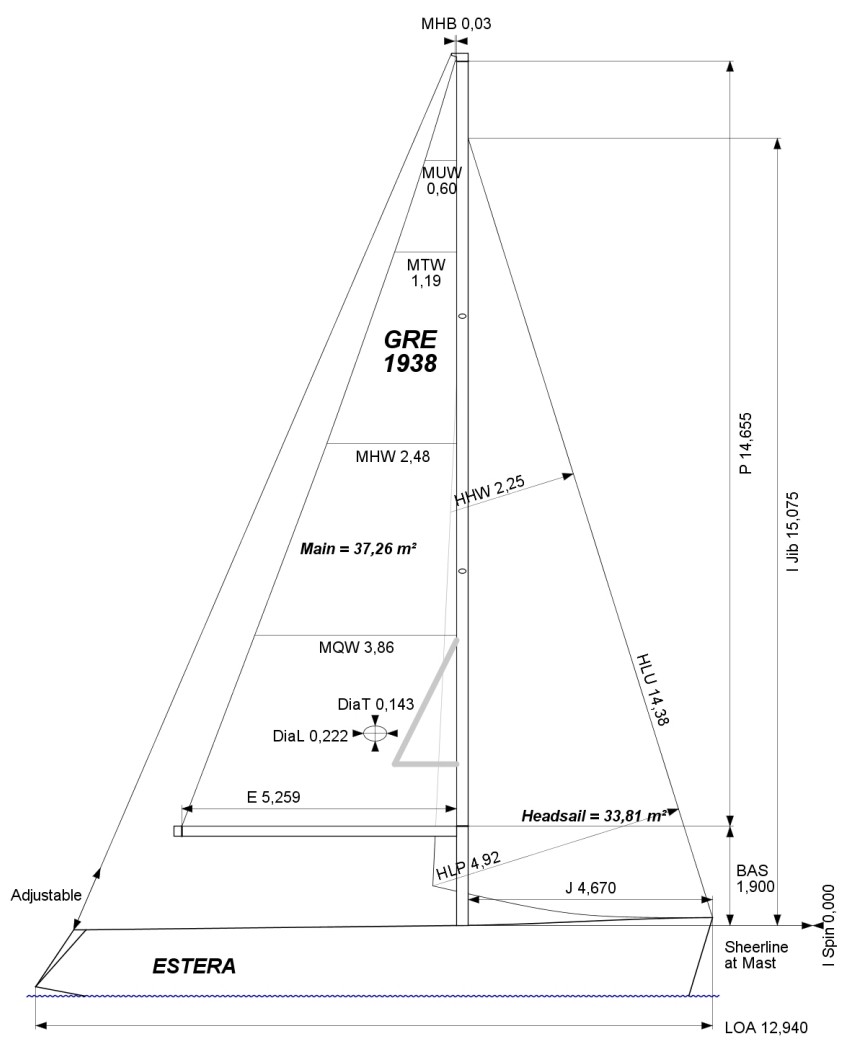
**Class Division Length**

**CDL = 9.331**

**Stability (Estimated)**

Limit Positive Stab.: **107.9°**  
 Stability Index: **108.3**

**Owner**



<b>BOAT</b> Name <b>ESTERA</b> Sail Nr <b>GRE 1938</b>	<b>GPH</b> <b>713.7</b>	<b>HULL</b> Data File <b>GR1938</b> LOA <b>12.940m</b> Offset File <b>CYC434CL.OFF</b> MB <b>4.420m</b> Displacement <b>8,980kg</b> Draft <b>1.877m</b>
<b>CLASS</b> Class <b>CYCLADES 43.4</b> Designer <b>BERRET/RACOUPEAU</b> Builder <b>BENETEAU</b> Series <b>01/2007</b> Age Date <b>01/2007</b> Age Allowance <b>0.422%</b>		IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.406%</b> Plan Review Construction <b>Solid</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>No</b> Light Stanchions <b>No</b>
<b>COMMENTS</b> Builder's displacement.		IMSL <b>11.771m</b> VCGD <b>0.157m</b> Sink <b>27.77kg/mm</b> RL <b>6.890m</b> VCGM <b>0.268m</b> WS <b>35.72m²</b> LSMO <b>11.845m</b> Displacement/Length ratio <b>5.4035</b> Water Ballast <b>0</b> Trim Tab <b>No</b> BLR Index <b>0.0000</b>
<b>PROPELLER</b> Installation <b>Shaft non exposed</b> PRD <b>0.440</b> Type <b>Solid 3 blades</b> PBW <b>0.260</b> PIPA <b>0.0116</b>		<b>CENTERBOARD</b> <b>N/A</b>
<b>SCORING OPTIONS</b>		
	<b>COASTAL / LONG DISTANCE</b>	<b>WINDWARD / LEEWARD</b>
Time on Distance	<b>685.4</b>	<b>770.3</b>
Time on Time	<b>0.8754</b>	<b>0.8763</b>
Triple Number	Low Medium High	Low Medium High
Time on Distance	<b>883.7 618.5 513.1</b>	<b>1157.8 782.4 627.4</b>
Time on Time	<b>0.7638 1.0914 1.3155</b>	<b>0.5830 0.8627 1.0758</b>

<b>BOAT</b>	
Name <b>ESTERA</b>	Sail Nr <b>GRE 1938</b>
File <b>GR1938</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>
Inner Stay <b>None Fitted</b>	Runners/Checkstays <b>0</b>
Carbon Mast <b>No</b>	Jib Furler <b>Yes</b>
Fiber Rigging <b>No</b>	Main Furler <b>Yes</b>
Non-Circular Rigging <b>No</b>	
Articulated Bowsprit <b>No</b>	
P <b>14.655</b>	E <b>5.259</b> MDT1 <b>0.143</b> MW
IG <b>15.075</b>	J <b>4.670</b> MDL1 <b>0.222</b> GO
ISP	SFJ MDT2 BD
BAS <b>1.900</b>	SPL MDL2 MWT
FSD	TPS TL <b>-3.000</b> MCG

<b>INCLINING TEST AND FREEBOARDS</b>	
Inclining Test <b>Club Estimated VCG</b>	
Flotation date <b>01/01/2013</b>	SG
FFM	FF <b>1.501</b> SFFP <b>0.312</b>
FAM	FA <b>1.267</b> SAFF <b>11.978</b>
LCF from stem on CL / on sheer	<b>7.082 / 7.395</b>
Maximum beam station from stem	<b>7.792</b>
RM Measured	<b>234.2kg-m</b>
RM Default	<b>230.2kg-m</b>
Limit of positive stability / Stab.Index	<b>107.9° / 108.3</b>
Freeboard at mast at 4.670	<b>1.350</b>



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

**2020**  
Measurements  
Datasheet

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

<b>PROPELLER</b>	
Installation <b>Shaft non exposed</b>	PRD <b>0.440</b>
Type <b>Solid 3 blades</b>	PBW <b>0.260</b>
Twin Screw <b>No</b>	PIPA <b>0.0116</b>
PSA	PHD ESL
PSD	PHL

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<b>COMMENTS</b>	
Builder's displacement.	

<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					
1	0.03	0.60	1.19	2.48	3.86	37.26		20/10/2020	ELVSTROM	Dacron						
<b>HEADSAILS (1)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.04	0.55	1.08	2.25	3.55	4.92	14.38	105%	33.81		No		20/10/2020	ELVSTROM	Dacron	
<b>SYMMETRIC SPINNAKERS (0)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
<b>ASYMMETRIC SPINNAKERS (0)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>	
Name	<b>ESTERA</b>
Sail Nr	<b>GRE 1938</b>
Certificate Number	<b>01994</b>
Issued On	<b>21/10/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1295.4</b>	<b>1035.7</b>	<b>895.5</b>	<b>804.5</b>	<b>747.5</b>	<b>721.8</b>	<b>723.9</b>
52°	<b>817.4</b>	<b>665.1</b>	<b>582.5</b>	<b>526.8</b>	<b>494.2</b>	<b>478.8</b>	<b>475.3</b>
60°	<b>755.4</b>	<b>622.9</b>	<b>548.3</b>	<b>499.8</b>	<b>473.2</b>	<b>460.2</b>	<b>453.9</b>
75°	<b>712.4</b>	<b>591.7</b>	<b>521.0</b>	<b>480.0</b>	<b>458.1</b>	<b>444.8</b>	<b>430.0</b>
90°	<b>722.0</b>	<b>594.6</b>	<b>520.9</b>	<b>477.7</b>	<b>454.9</b>	<b>439.2</b>	<b>414.3</b>
110°	<b>797.3</b>	<b>635.9</b>	<b>546.9</b>	<b>490.8</b>	<b>460.3</b>	<b>442.0</b>	<b>412.1</b>
120°	<b>860.7</b>	<b>678.5</b>	<b>577.7</b>	<b>511.5</b>	<b>471.7</b>	<b>449.4</b>	<b>418.6</b>
135°	<b>997.5</b>	<b>767.6</b>	<b>641.6</b>	<b>561.7</b>	<b>505.3</b>	<b>470.2</b>	<b>433.9</b>
150°	<b>1164.3</b>	<b>881.2</b>	<b>721.8</b>	<b>622.2</b>	<b>553.3</b>	<b>502.7</b>	<b>449.6</b>
Run VMG	<b>1313.2</b>	<b>987.1</b>	<b>799.1</b>	<b>679.9</b>	<b>598.6</b>	<b>538.5</b>	<b>464.8</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1304.3</b>	<b>1011.4</b>	<b>847.3</b>	<b>742.2</b>	<b>673.1</b>	<b>630.1</b>	<b>594.4</b>
Circular Random	<b>1042.5</b>	<b>816.7</b>	<b>689.1</b>	<b>610.7</b>	<b>560.8</b>	<b>528.6</b>	<b>493.9</b>
Coastal / Long Distance	<b>1305.2</b>	<b>948.0</b>	<b>757.0</b>	<b>636.1</b>	<b>566.9</b>	<b>521.4</b>	<b>464.8</b>
Non Spinnaker	<b>1042.5</b>	<b>816.7</b>	<b>689.1</b>	<b>610.7</b>	<b>560.8</b>	<b>528.6</b>	<b>493.9</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>46.9°</b>	<b>45.0°</b>	<b>43.9°</b>	<b>43.1°</b>	<b>42.8°</b>	<b>42.8°</b>	<b>43.5°</b>
Beat VMG	<b>2.78</b>	<b>3.48</b>	<b>4.02</b>	<b>4.47</b>	<b>4.82</b>	<b>4.99</b>	<b>4.97</b>
52°	<b>4.40</b>	<b>5.41</b>	<b>6.18</b>	<b>6.83</b>	<b>7.28</b>	<b>7.52</b>	<b>7.57</b>
60°	<b>4.77</b>	<b>5.78</b>	<b>6.57</b>	<b>7.20</b>	<b>7.61</b>	<b>7.82</b>	<b>7.93</b>
75°	<b>5.05</b>	<b>6.08</b>	<b>6.91</b>	<b>7.50</b>	<b>7.86</b>	<b>8.09</b>	<b>8.37</b>
90°	<b>4.99</b>	<b>6.05</b>	<b>6.91</b>	<b>7.54</b>	<b>7.91</b>	<b>8.20</b>	<b>8.69</b>
110°	<b>4.52</b>	<b>5.66</b>	<b>6.58</b>	<b>7.33</b>	<b>7.82</b>	<b>8.14</b>	<b>8.74</b>
120°	<b>4.18</b>	<b>5.31</b>	<b>6.23</b>	<b>7.04</b>	<b>7.63</b>	<b>8.01</b>	<b>8.60</b>
135°	<b>3.61</b>	<b>4.69</b>	<b>5.61</b>	<b>6.41</b>	<b>7.12</b>	<b>7.66</b>	<b>8.30</b>
150°	<b>3.09</b>	<b>4.09</b>	<b>4.99</b>	<b>5.79</b>	<b>6.51</b>	<b>7.16</b>	<b>8.01</b>
Run VMG	<b>2.74</b>	<b>3.65</b>	<b>4.51</b>	<b>5.29</b>	<b>6.01</b>	<b>6.68</b>	<b>7.75</b>
Gybe Angles	<b>178.0°</b>	<b>178.0°</b>	<b>178.0°</b>	<b>179.0°</b>	<b>179.0°</b>	<b>179.0°</b>	<b>180.0°</b>