



**2020**  
ORC Club  
Certificate

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



**Certificate**  
Number **00521**  
Issued On **29/07/2020**  
ORC Ref **03420000NBI**  
VPP Ver. **2020 1.02**  
Valid until **28/02/2021**

**Crew Weight**

Default	580kg
Maximum	<b>605kg</b>
Minimum*	<b>454kg</b>

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

**Special Scoring**

ToD	ToT
Non Spin GPH <b>667.7</b>	<b>0.8986</b>
Non Spin OSN <b>648.5</b>	<b>0.9252</b>

**Sails Limitations**

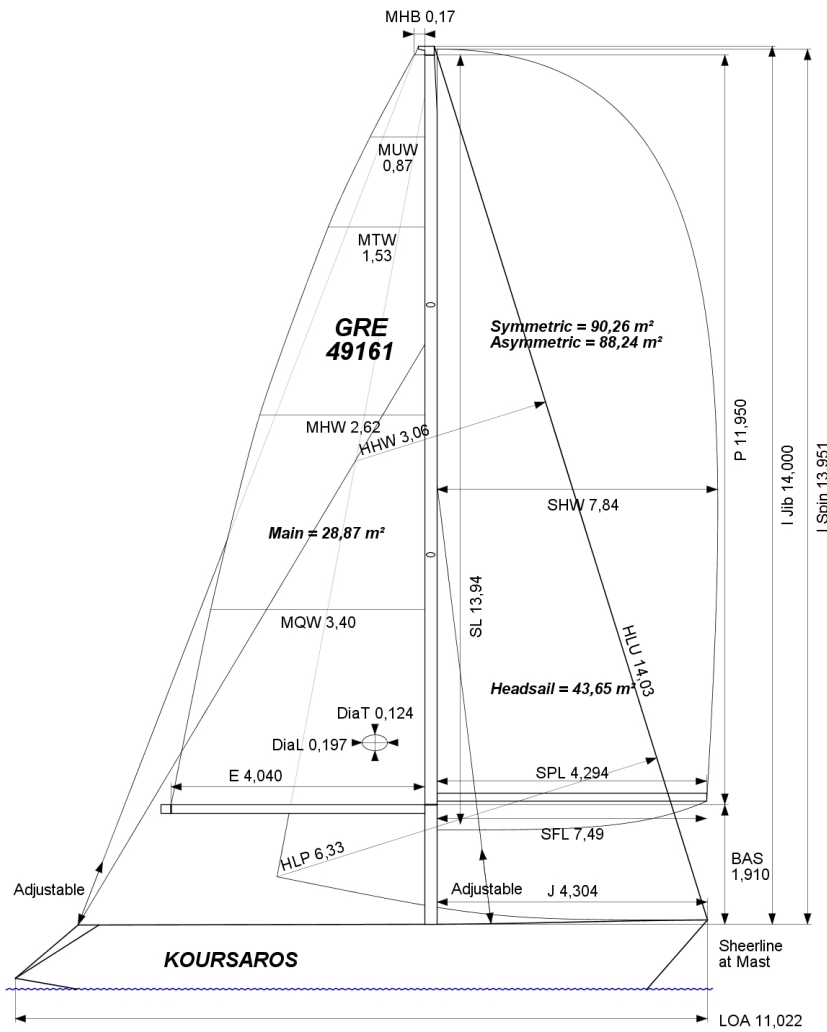
Headsails **5** Spinnakers **4**

**Spinnaker configuration**  
Symmetric: **Yes** **90.26**  
Asymmetric: **Yes** **88.24**  
Flying H/S: **No**  
Spin. Pole: **Yes**

**Class Division Length**  
CDL = **8.632**

**Stability (Measured)**  
Limit Positive Stab.: **119.3°**  
Stability Index: **118.3**

**Owner**



<b>BOAT</b> Name <b>KOURSAROS</b> Sail Nr <b>GRE-49161</b>		<b>GPH</b> <b>639.2</b>	<b>HULL</b> Data File <b>GR49161</b> LOA <b>11.022m</b> Offset File <b>X372.off</b> MB <b>3.622m</b> Displacement <b>5,134kg</b> Draft <b>2.003m</b>					
<b>CLASS</b> Class <b>X-372</b> Designer <b>N.JEPPESSEN</b> Builder <b>X-YACHTS</b> Series <b>01/1986</b> Age Date <b>07/1987</b> Age Allowance <b>0.487%</b>			IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.030%</b> Plan Review Construction <b>Cored</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>No</b> Light Stanchions <b>No</b>			IMSL <b>8.893m</b> VCGD <b>-0.187m</b> Sink <b>16.59kg/mm</b> RL <b>8.372m</b> VCGM <b>-0.049m</b> WS <b>22.99m²</b> LSM0 <b>8.866m</b> Displacement/Length ratio <b>7.3667</b>		
<b>COMMENTS</b> ex "SHOSHA", ex "IRINI"			Water Ballast <b>0</b> Trim Tab <b>No</b> BLR Index <b>0.0000</b>			<b>CENTERBOARD</b>  <b>N/A</b>		
<b>PROPELLER</b> Installation <b>Shaft exposed</b> PRD <b>0.436</b> Type <b>Folding 2 blades</b> PBW <b>0.109</b> PIPA <b>0.0052</b>								
<b>SCORING OPTIONS</b>								
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>				
Time on Distance	<b>621.8</b>			<b>689.8</b>				
Time on Time	<b>0.9649</b>			<b>0.9785</b>				
Triple Number	Low	Medium	High	Low	Medium	High		
Time on Distance	<b>726.5</b>	<b>567.7</b>	<b>511.1</b>	<b>934.4</b>	<b>692.4</b>	<b>607.2</b>		
Time on Time	<b>0.9291</b>	<b>1.1891</b>	<b>1.3207</b>	<b>0.7224</b>	<b>0.9749</b>	<b>1.1117</b>		

<b>BOAT</b>			
Name	<b>KOURSAROS</b>	Sail Nr	<b>GRE-49161</b>
File	<b>GR49161</b>	Data in	<b>meters/kilograms</b>
<b>RIG</b>			
Forestay Tension	<b>Aft</b>	Spreaders	<b>2</b>
Inner Stay	<b>Adjustable</b>	Runners/Checkstays	<b>1</b>
Carbon Mast	<b>No</b>	Jib Furler	<b>No</b>
Fiber Rigging	<b>No</b>	Main Furler	<b>No</b>
Non-Circular Rigging	<b>No</b>		
Articulated Bowsprit	<b>No</b>		
P	<b>11.950</b>	E	<b>4.040</b>
IG	<b>14.000</b>	J	<b>4.304</b>
ISP	<b>13.951</b>	SFJ	
BAS	<b>1.910</b>	SPL	<b>4.294</b>
FSD	<b>0.030</b>	TPS	
MDT1	<b>0.124</b>	MW	<b>0.142</b>
MDL1	<b>0.197</b>	GO	<b>0.291</b>
MDT2	<b>0.121</b>	BD	<b>0.140</b>
MDL2	<b>0.152</b>	MWT	<b>166.80</b>
TL	<b>0.906</b>	MCG	<b>2.086</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>24/04/2015</b>		SG <b>1.0240</b>	
FFM	<b>1.096</b>	FF	<b>1.097</b>
FAM	<b>1.023</b>	FA	<b>1.023</b>
SFFP	<b>0.908</b>	SAFP	<b>9.681</b>
W1	<b>64.0</b>	PD1	<b>251.1</b>
W2	<b>64.0</b>	PD2	<b>251.1</b>
W3	<b>64.0</b>	PD3	<b>251.1</b>
W4	<b>64.0</b>	PD4	<b>251.1</b>
WD	<b>11.620</b>	GSA	<b>50.2</b>
RSA	<b>5941.7</b>	PLM	<b>2069.0</b>
LCF from stem on CL / on sheer		<b>5.880 / 6.106</b>	
Maximum beam station from stem		<b>6.130</b>	
RM Measured		<b>106.3kg-m</b>	
RM Default		<b>104.7kg-m</b>	
Limit of positive stability / Stab.Index		<b>119.3° / 118.3</b>	
Freeboard at mast at 4.304		<b>1.032</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 exposed</b>	PRD	<b>0.436</b>
Type	<b>Folding 2 blades</b>	PBW	<b>0.109</b>
Twin Screw	<b>No</b>	PIPA	<b>0.0052</b>
PSA	<b>23.000</b>	PHL	<b>0.125</b>
ST3	<b>0.138</b>	ESL	<b>0.972</b>
PSD	<b>0.030</b>	ST1	<b>0.029</b>
ST4	<b>0.055</b>		
PHD	<b>0.054</b>	ST2	<b>0.109</b>
ST5	<b>0.250</b>		

**Certificate**

Number **00521**  
ORC Ref **03420000NBI**  
Issued On **29/07/2020**  
VPP Ver. **2020 1.02**  
Valid until **28/02/2021**



<b>COMMENTS</b>			
ex "SHOSHA", ex "IRINI"			

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

<b>CENTERBOARD</b>			
N/A			

<b>SAILS INVENTORY</b>																
<b>MAINSAIL (2)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.17	0.87	1.53	2.62	3.40	28.88		27/06/2016	QUANTUM	Pentex						
2	0.21	0.88	1.52	2.61	3.40	28.87		27/06/2016	QUANTUM	Carbon						
<b>HEADSAILS (4)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.07	0.77	1.51	3.06	4.66	6.33	14.03	147%	43.65		No		27/06/2016	QUANTUM	Carbon	MEDIUM
2	0.10	0.83	1.57	3.08	4.62	6.21	13.80	144%	42.86		No		27/06/2016	DOYLE	Kevlar	N1
3	0.08	0.53	1.07	2.07	3.09	4.13	14.12	96%	29.33		No		01/08/2014	INCEDENC	Pentex	N3
4	0.08	0.41	0.77	1.58	2.49	3.50	11.05	81%	18.40		No		12/07/2011	DOYLE	Dacron	N4
<b>SYMMETRIC SPINNAKERS (4)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	13.94	13.94	13.94	7.84	7.49	90.27		27/07/2012	QUANTUM	Nylon	S05					
3	13.92	13.92	13.92	7.87	7.42	90.25		22/07/2014	QUANTUM	Nylon	S09					
4	13.87	13.87	13.87	7.57	7.51	87.36		04/05/2010	DOYLE	Nylon	0,8					
1	13.80	13.80	13.80	7.43	7.71	86.09		04/05/2010	DOYLE	Nylon	1,5					
<b>ASYMMETRIC SPINNAKERS (1)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	14.82	12.92	13.87	7.60	7.77	88.24	asym		27/07/2012	QUANTUM	Nylon	0,7				

<b>MEASUREMENT INVENTORY</b>				
Measurer <b>GRE-56</b>				
Date <b>24/04/2015</b>				
Comment				
<b>Internal Ballast total = 0.0</b>				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	VOLVO PENTA	28 HP	
Id	Item	Weight	Description	

<b>MEASUREMENT INVENTORY</b>								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
3	Tank	FUEL	INOX	55.0	5.00			5-0
2	Tank	WATER	INOX	125.0	4.90			0-0
1	Tank	WATER	PLASTIC	190.0	9.80			0-0
Id	Item	Weight	Distance	VCG	Description			
2	Battery	60.0	6.60		3 x 72Amph			
1	Battery	12.0	6.50		40 Amph			

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>	
Name	<b>KOURSAROS</b>
Sail Nr	<b>GRE-49161</b>
Certificate Number	<b>00521</b>
Issued On	<b>29/07/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1040.2</b>	<b>869.8</b>	<b>771.2</b>	<b>729.8</b>	<b>712.6</b>	<b>705.1</b>	<b>710.6</b>
52°	<b>686.3</b>	<b>581.8</b>	<b>536.5</b>	<b>518.5</b>	<b>510.9</b>	<b>507.1</b>	<b>505.7</b>
60°	<b>651.0</b>	<b>559.6</b>	<b>524.6</b>	<b>507.8</b>	<b>498.3</b>	<b>493.5</b>	<b>490.5</b>
75°	<b>625.7</b>	<b>545.7</b>	<b>515.8</b>	<b>497.9</b>	<b>484.1</b>	<b>473.5</b>	<b>463.6</b>
90°	<b>635.8</b>	<b>547.3</b>	<b>514.3</b>	<b>495.8</b>	<b>479.9</b>	<b>464.9</b>	<b>442.4</b>
110°	<b>657.3</b>	<b>547.1</b>	<b>507.3</b>	<b>483.0</b>	<b>461.5</b>	<b>445.5</b>	<b>427.3</b>
120°	<b>677.9</b>	<b>559.4</b>	<b>512.8</b>	<b>486.6</b>	<b>462.6</b>	<b>440.8</b>	<b>410.3</b>
135°	<b>748.8</b>	<b>608.9</b>	<b>534.4</b>	<b>502.3</b>	<b>478.2</b>	<b>454.4</b>	<b>412.1</b>
150°	<b>881.2</b>	<b>701.8</b>	<b>593.3</b>	<b>531.7</b>	<b>502.7</b>	<b>480.3</b>	<b>437.4</b>
Run VMG	<b>1017.5</b>	<b>810.3</b>	<b>684.7</b>	<b>603.3</b>	<b>547.8</b>	<b>513.1</b>	<b>469.1</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1028.8</b>	<b>840.1</b>	<b>728.0</b>	<b>666.6</b>	<b>630.2</b>	<b>609.1</b>	<b>589.8</b>
Circular Random	<b>874.0</b>	<b>708.3</b>	<b>620.4</b>	<b>570.1</b>	<b>539.7</b>	<b>520.3</b>	<b>497.1</b>
Coastal / Long Distance	<b>1027.7</b>	<b>790.4</b>	<b>659.9</b>	<b>587.9</b>	<b>550.2</b>	<b>521.0</b>	<b>475.4</b>
Non Spinnaker	<b>924.9</b>	<b>744.4</b>	<b>647.3</b>	<b>591.0</b>	<b>556.6</b>	<b>534.7</b>	<b>508.3</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>42.0°</b>	<b>41.3°</b>	<b>40.5°</b>	<b>39.0°</b>	<b>38.3°</b>	<b>37.9°</b>	<b>38.6°</b>
Beat VMG	<b>3.46</b>	<b>4.14</b>	<b>4.67</b>	<b>4.93</b>	<b>5.05</b>	<b>5.11</b>	<b>5.07</b>
52°	<b>5.25</b>	<b>6.19</b>	<b>6.71</b>	<b>6.94</b>	<b>7.05</b>	<b>7.10</b>	<b>7.12</b>
60°	<b>5.53</b>	<b>6.43</b>	<b>6.86</b>	<b>7.09</b>	<b>7.22</b>	<b>7.30</b>	<b>7.34</b>
75°	<b>5.75</b>	<b>6.60</b>	<b>6.98</b>	<b>7.23</b>	<b>7.44</b>	<b>7.60</b>	<b>7.77</b>
90°	<b>5.66</b>	<b>6.58</b>	<b>7.00</b>	<b>7.26</b>	<b>7.50</b>	<b>7.74</b>	<b>8.14</b>
110°	<b>5.48</b>	<b>6.58</b>	<b>7.10</b>	<b>7.45</b>	<b>7.80</b>	<b>8.08</b>	<b>8.42</b>
120°	<b>5.31</b>	<b>6.44</b>	<b>7.02</b>	<b>7.40</b>	<b>7.78</b>	<b>8.17</b>	<b>8.77</b>
135°	<b>4.81</b>	<b>5.91</b>	<b>6.74</b>	<b>7.17</b>	<b>7.53</b>	<b>7.92</b>	<b>8.73</b>
150°	<b>4.09</b>	<b>5.13</b>	<b>6.07</b>	<b>6.77</b>	<b>7.16</b>	<b>7.49</b>	<b>8.23</b>
Run VMG	<b>3.54</b>	<b>4.44</b>	<b>5.26</b>	<b>5.97</b>	<b>6.57</b>	<b>7.02</b>	<b>7.67</b>
Gybe Angles	<b>146.0°</b>	<b>150.0°</b>	<b>150.5°</b>	<b>158.0°</b>	<b>180.0°</b>	<b>180.0°</b>	<b>180.0°</b>