



**ORC**

Offshore Racing Congress  
World leader in rating technology

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

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



**Certificate**  
Number **01190**  
Issued On **03/06/2020**  
ORC Ref **03420000JMQ**  
VPP Ver. **2020 1.02**  
Valid until **28/02/2021**

**Crew Weight**

Default	760kg
Maximum	450kg
Minimum*	338kg

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

**Special Scoring**

ToD	ToT
Non Spin GPH <b>690.2</b>	<b>0.8693</b>
Non Spin OSN <b>666.4</b>	<b>0.9004</b>

**Sails Limitations**

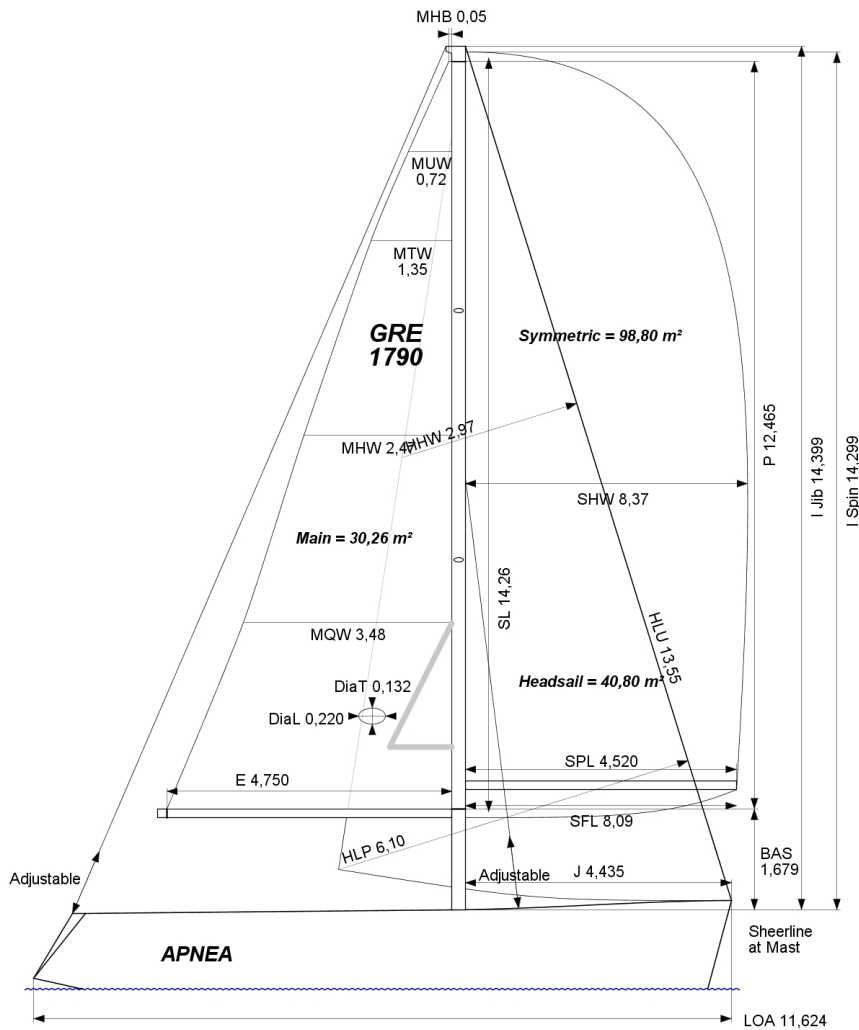
Headsails **5** Spinnakers **4**

**Spinnaker configuration**  
Symmetric: **Yes** **98.80**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

**Class Division Length**  
CDL = **9.120**

**Stability (Estimated)**  
Limit Positive Stab.: **118.0°**  
Stability Index: **119.5**

**Owner**



<b>BOAT</b> Name <b>APNEA</b> Sail Nr <b>GRE-1790</b>		<b>GPH</b> <b>653.9</b>	<b>HULL</b> Data File <b>GR1790</b> LOA <b>11.624m</b> Offset File <b>OC393HM.OFF</b> MB <b>3.988m</b> Displacement <b>7,650kg</b> Draft <b>1.896m</b>					
<b>CLASS</b> Class <b>OCEANIS 393</b> Designer <b>BERRET-RACOUPEAU</b> Builder <b>BENETEAU</b> Series <b>06/1999</b> Age Date <b>01/2003</b> Age Allowance <b>0.487%</b>			IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.399%</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>			IMSL <b>10.650m</b> VCGD <b>0.027m</b> Sink <b>22.81kg/mm</b> RL <b>7.590m</b> VCGM <b>0.120m</b> WS <b>30.49m²</b> LSM0 <b>10.715m</b> Displacement/Length ratio <b>6.2185</b>		
<b>COMMENTS</b> Builder's displacement.			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>0.460</b> Type <b>Folding 3 blades</b> PIPA <b>0.0021</b>								
<b>SCORING OPTIONS</b>								
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>				
Time on Distance	<b>632.6</b>			<b>709.4</b>				
Time on Time	<b>0.9484</b>			<b>0.9515</b>				
Triple Number	Low	Medium	High	Low	Medium	High		
Time on Distance	<b>770.1</b>	<b>573.9</b>	<b>503.9</b>	<b>1000.3</b>	<b>717.0</b>	<b>607.6</b>		
Time on Time	<b>0.8765</b>	<b>1.1761</b>	<b>1.3396</b>	<b>0.6748</b>	<b>0.9414</b>	<b>1.1110</b>		

<b>BOAT</b>	
Name <b>APNEA</b>	Sail Nr <b>GRE-1790</b>
File <b>GR1790</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>0</b>
Carbon Mast <b>No</b>	Jib Furler <b>No</b>
Fiber Rigging <b>No</b>	Main Furler <b>Yes</b>
Non-Circular Rigging <b>No</b>	
Articulated Bowsprit <b>No</b>	
P <b>12.465</b>	E <b>4.750</b> MDT1 <b>0.132</b> MW
IG <b>14.399</b>	J <b>4.435</b> MDL1 <b>0.220</b> GO
ISP <b>14.299</b>	SFJ <b>0.000</b> MDT2
BAS <b>1.679</b>	SPL <b>4.520</b> MDL2
FSD <b>0.040</b>	TPS
	TL <b>-3.000</b> MCG

<b>INCLINING TEST AND FREEBOARDS</b>	
Inclining Test <b>Club Estimated VCG</b>	
Flotation date <b>24/09/2016</b>	SG <b>1.0254</b>
FFM <b>1.472</b>	FF <b>1.472</b> SFFP <b>0.280</b>
FAM <b>1.259</b>	FA <b>1.259</b> SAFF <b>10.760</b>
LCF from stem on CL / on sheer	<b>6.381 / 6.654</b>
Maximum beam station from stem	<b>7.000</b>
RM Measured	<b>164.8kg-m</b>
RM Default	<b>162.1kg-m</b>
Limit of positive stability / Stab.Index	<b>118.0° / 119.5</b>
Freeboard at mast at 4.435	<b>1.323</b>




**2020**  
Measurements  
Datasheet

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

<b>PROPELLER</b>	
Installation <b>Shaft exposed</b>	PRD <b>0.460</b>
Type <b>Folding 3 blades</b>	PBW
Twin Screw <b>No</b>	PIPA <b>0.0021</b>
PSA	PHL ST3 ESL
PSD	ST1 ST4
PHD	ST2 ST5

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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 (2)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.05	0.72	1.35	2.47	3.48	30.26		27/04/2018	KAKITSIS	Dacron						
1	0.06	0.58	1.12	2.24	3.36	28.43		24/09/2016	KAKITSIS	Dacron						
<b>HEADSAILS (4)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovr/Ip	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
3	0.05	0.74	1.47	2.97	4.52	6.10	13.55	138%	40.80		No		27/04/2018	KAKITSIS	Dacron	enoa Furler
4	0.07	0.73	1.44	2.92	4.48	6.12	13.50	138%	40.35	N	No		25/02/2020	QUANTUM	Pentex	
1	0.04	0.69	1.34	2.79	4.36	6.05	13.62	136%	39.47		No		24/09/2016	ELVSTROM	Dacron	
2	0.08	0.69	1.32	2.73	4.30	6.03	13.27	136%	38.04		No		24/09/2016	HOOD	Dacron	
<b>SYMMETRIC SPINNAKERS (2)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
3	14.26	14.26	14.26	8.37	8.09	98.80		25/02/2020	QUANTUM	Nylon						
1	13.00	13.00	13.00	6.00	5.80	64.57		24/09/2016	KAKITSIS	Nylon						
<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>APNEA</b>
Sail Nr	<b>GRE-1790</b>
Certificate Number	<b>01190</b>
Issued On	<b>03/06/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1169.9</b>	<b>957.3</b>	<b>840.5</b>	<b>766.5</b>	<b>730.2</b>	<b>716.6</b>	<b>717.2</b>
52°	<b>749.2</b>	<b>628.6</b>	<b>556.7</b>	<b>515.5</b>	<b>497.3</b>	<b>490.7</b>	<b>488.7</b>
60°	<b>701.9</b>	<b>594.9</b>	<b>530.6</b>	<b>498.4</b>	<b>482.9</b>	<b>475.5</b>	<b>472.1</b>
75°	<b>668.3</b>	<b>568.5</b>	<b>512.2</b>	<b>485.7</b>	<b>470.8</b>	<b>460.4</b>	<b>449.5</b>
90°	<b>676.7</b>	<b>571.0</b>	<b>505.2</b>	<b>478.1</b>	<b>467.3</b>	<b>454.7</b>	<b>433.4</b>
110°	<b>674.4</b>	<b>553.1</b>	<b>492.0</b>	<b>465.6</b>	<b>447.4</b>	<b>432.9</b>	<b>415.9</b>
120°	<b>692.0</b>	<b>565.2</b>	<b>497.7</b>	<b>468.5</b>	<b>448.2</b>	<b>428.7</b>	<b>397.9</b>
135°	<b>763.3</b>	<b>615.7</b>	<b>527.1</b>	<b>484.0</b>	<b>461.2</b>	<b>441.5</b>	<b>401.9</b>
150°	<b>909.4</b>	<b>713.8</b>	<b>598.7</b>	<b>525.2</b>	<b>485.2</b>	<b>463.5</b>	<b>426.5</b>
Run VMG	<b>1050.1</b>	<b>824.2</b>	<b>691.4</b>	<b>602.0</b>	<b>544.7</b>	<b>500.8</b>	<b>455.9</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1110.0</b>	<b>890.8</b>	<b>765.9</b>	<b>684.2</b>	<b>637.4</b>	<b>608.7</b>	<b>586.6</b>
Circular Random	<b>917.6</b>	<b>733.9</b>	<b>633.3</b>	<b>574.0</b>	<b>537.7</b>	<b>514.9</b>	<b>489.9</b>
Coastal / Long Distance	<b>1104.0</b>	<b>834.9</b>	<b>684.9</b>	<b>591.9</b>	<b>544.8</b>	<b>512.0</b>	<b>464.2</b>
Non Spinnaker	<b>982.3</b>	<b>779.9</b>	<b>667.7</b>	<b>600.5</b>	<b>558.6</b>	<b>531.9</b>	<b>501.9</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>44.3°</b>	<b>43.1°</b>	<b>42.0°</b>	<b>42.0°</b>	<b>41.6°</b>	<b>41.1°</b>	<b>41.3°</b>
Beat VMG	<b>3.08</b>	<b>3.76</b>	<b>4.28</b>	<b>4.70</b>	<b>4.93</b>	<b>5.02</b>	<b>5.02</b>
52°	<b>4.80</b>	<b>5.73</b>	<b>6.47</b>	<b>6.98</b>	<b>7.24</b>	<b>7.34</b>	<b>7.37</b>
60°	<b>5.13</b>	<b>6.05</b>	<b>6.79</b>	<b>7.22</b>	<b>7.45</b>	<b>7.57</b>	<b>7.62</b>
75°	<b>5.39</b>	<b>6.33</b>	<b>7.03</b>	<b>7.41</b>	<b>7.65</b>	<b>7.82</b>	<b>8.01</b>
90°	<b>5.32</b>	<b>6.30</b>	<b>7.13</b>	<b>7.53</b>	<b>7.70</b>	<b>7.92</b>	<b>8.31</b>
110°	<b>5.34</b>	<b>6.51</b>	<b>7.32</b>	<b>7.73</b>	<b>8.05</b>	<b>8.32</b>	<b>8.66</b>
120°	<b>5.20</b>	<b>6.37</b>	<b>7.23</b>	<b>7.68</b>	<b>8.03</b>	<b>8.40</b>	<b>9.05</b>
135°	<b>4.72</b>	<b>5.85</b>	<b>6.83</b>	<b>7.44</b>	<b>7.81</b>	<b>8.15</b>	<b>8.96</b>
150°	<b>3.96</b>	<b>5.04</b>	<b>6.01</b>	<b>6.85</b>	<b>7.42</b>	<b>7.77</b>	<b>8.44</b>
Run VMG	<b>3.43</b>	<b>4.37</b>	<b>5.21</b>	<b>5.98</b>	<b>6.61</b>	<b>7.19</b>	<b>7.90</b>
Gybe Angles	<b>146.0°</b>	<b>150.0°</b>	<b>150.0°</b>	<b>154.0°</b>	<b>163.0°</b>	<b>180.0°</b>	<b>180.0°</b>