

<b>BOAT</b> Name <b>BRAVA</b> Sail Nr <b>GRE-1230</b>	<b>GPH</b> <b>664,8</b>	<b>HULL</b> Length Overall <b>11,330m</b> Maximum Beam <b>3,604m</b> Displacement <b>5.565kg</b> Draft <b>1,797m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0,356%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>FEELING 1090 ST.EX</b> Designer <b>PH. HARLE</b> Builder <b>KIRIE</b> Series <b>01/1987</b> Age <b>01/1990</b> Age Allowance <b>0,487%</b> Offset File <b>NSANTG.OFF - 20/3/2007 12:07:04</b> Measurement by - <b>12/04/2007</b>		IMSL <b>9,457m</b> VCGD <b>0,107m</b> Sink <b>18,68kg/mm</b> RL <b>7,607m</b> VCGM <b>0,184m</b> WS <b>24,38m<sup>2</sup></b> LSMO <b>9,199m</b> Displacement/Length ratio <b>7,1490</b>



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**2018**  
ORC International  
Certificate

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



<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>642,5</b>			<b>719,0</b>		
Time on Time	<b>0,9338</b>			<b>0,9388</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>781,1</b>	<b>584,3</b>	<b>511,9</b>	<b>1007,0</b>	<b>727,2</b>	<b>616,9</b>
Time on Time	<b>0,8642</b>	<b>1,1553</b>	<b>1,3185</b>	<b>0,6703</b>	<b>0,9282</b>	<b>1,0942</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1158,2</b>	<b>959,2</b>	<b>844,6</b>	<b>765,6</b>	<b>733,0</b>	<b>721,9</b>	<b>724,6</b>
52°	<b>755,2</b>	<b>634,5</b>	<b>559,0</b>	<b>522,2</b>	<b>506,7</b>	<b>501,2</b>	<b>499,4</b>
60°	<b>714,7</b>	<b>601,4</b>	<b>536,1</b>	<b>507,2</b>	<b>492,8</b>	<b>485,8</b>	<b>482,2</b>
75°	<b>684,8</b>	<b>575,8</b>	<b>520,7</b>	<b>495,4</b>	<b>479,0</b>	<b>466,9</b>	<b>454,9</b>
90°	<b>691,0</b>	<b>579,8</b>	<b>515,2</b>	<b>487,6</b>	<b>473,8</b>	<b>459,6</b>	<b>435,2</b>
110°	<b>699,0</b>	<b>570,2</b>	<b>507,5</b>	<b>478,4</b>	<b>455,9</b>	<b>437,1</b>	<b>415,5</b>
120°	<b>718,5</b>	<b>586,0</b>	<b>515,1</b>	<b>483,5</b>	<b>459,5</b>	<b>437,3</b>	<b>402,7</b>
135°	<b>789,3</b>	<b>639,7</b>	<b>547,6</b>	<b>502,1</b>	<b>476,5</b>	<b>453,9</b>	<b>413,2</b>
150°	<b>925,2</b>	<b>729,4</b>	<b>617,3</b>	<b>543,6</b>	<b>501,9</b>	<b>478,0</b>	<b>436,9</b>
Run VMG	<b>1068,3</b>	<b>842,2</b>	<b>711,9</b>	<b>621,5</b>	<b>559,6</b>	<b>514,7</b>	<b>467,3</b>

**Certificate**  
Number **000343**  
ORC Ref **GRE01009782**  
Issued On **16/5/2018**  
VPP Ver. **2018 1.00**  
Valid until **28/2/2019**

**Crew Weight**  
Default **611kg**  
Maximum **700kg**  
Minimum\* **525kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **695,6** **0,8626**  
Non Spin OSN **671,3** **0,8937**

<b>Selected Courses</b>							
Windward / Leeward	<b>1113,3</b>	<b>900,7</b>	<b>778,3</b>	<b>693,6</b>	<b>646,3</b>	<b>618,3</b>	<b>595,9</b>
Circular Random	<b>931,1</b>	<b>745,6</b>	<b>644,1</b>	<b>583,9</b>	<b>546,8</b>	<b>523,2</b>	<b>496,9</b>
Coastal / Long Distance	<b>1108,8</b>	<b>845,4</b>	<b>696,9</b>	<b>601,8</b>	<b>554,4</b>	<b>521,1</b>	<b>471,2</b>
Non Spinnaker	<b>985,9</b>	<b>784,6</b>	<b>673,3</b>	<b>606,6</b>	<b>565,1</b>	<b>538,8</b>	<b>509,3</b>

**Sails Limitations**  
Headsails **5** | Spinnakers **3**  
Dacron Sails

<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>43,5°</b>	<b>42,1°</b>	<b>42,3°</b>	<b>41,4°</b>	<b>40,8°</b>	<b>40,5°</b>	<b>41,1°</b>
Beat VMG	<b>3,11</b>	<b>3,75</b>	<b>4,26</b>	<b>4,70</b>	<b>4,91</b>	<b>4,99</b>	<b>4,97</b>
52°	<b>4,77</b>	<b>5,67</b>	<b>6,44</b>	<b>6,89</b>	<b>7,11</b>	<b>7,18</b>	<b>7,21</b>
60°	<b>5,04</b>	<b>5,99</b>	<b>6,71</b>	<b>7,10</b>	<b>7,30</b>	<b>7,41</b>	<b>7,47</b>
75°	<b>5,26</b>	<b>6,25</b>	<b>6,91</b>	<b>7,27</b>	<b>7,52</b>	<b>7,71</b>	<b>7,91</b>
90°	<b>5,21</b>	<b>6,21</b>	<b>6,99</b>	<b>7,38</b>	<b>7,60</b>	<b>7,83</b>	<b>8,27</b>
110°	<b>5,15</b>	<b>6,31</b>	<b>7,09</b>	<b>7,52</b>	<b>7,90</b>	<b>8,24</b>	<b>8,66</b>
120°	<b>5,01</b>	<b>6,14</b>	<b>6,99</b>	<b>7,45</b>	<b>7,83</b>	<b>8,23</b>	<b>8,94</b>
135°	<b>4,56</b>	<b>5,63</b>	<b>6,57</b>	<b>7,17</b>	<b>7,56</b>	<b>7,93</b>	<b>8,71</b>
150°	<b>3,89</b>	<b>4,94</b>	<b>5,83</b>	<b>6,62</b>	<b>7,17</b>	<b>7,53</b>	<b>8,24</b>
Run VMG	<b>3,37</b>	<b>4,27</b>	<b>5,06</b>	<b>5,79</b>	<b>6,43</b>	<b>6,99</b>	<b>7,70</b>
Gybe Angles	<b>146,6°</b>	<b>150,5°</b>	<b>152,0°</b>	<b>154,7°</b>	<b>169,6°</b>	<b>180,0°</b>	<b>180,0°</b>

**Class Division Length**  
CDL = **8,533**

**Storm Sails Areas**  
Heavy Weather Jib **26,25**  
Storm Jib (JL=9,06) **9,72**  
Storm Trysail **8,09**

**Owner**

<b>BOAT</b>	
Name <b>BRAVA</b>	Sail Nr <b>GRE-1230</b>
File <b>GR1230</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>15/03/2007</b>		SG <b>1,0280</b>	
FFM <b>1,160</b>	FF <b>1,197</b>	SFFP <b>0,337</b>	
FAM <b>0,983</b>	FA <b>0,970</b>	SAFP <b>9,514</b>	
W1 <b>84,5</b>	PD1 <b>282,0</b>	WD <b>10,731</b>	
W2 <b>84,5</b>	PD2 <b>282,0</b>	GSA <b>41,9</b>	
W3 <b>84,5</b>	PD3 <b>282,0</b>	RSA <b>6082,1</b>	
W4 <b>84,5</b>	PD4 <b>282,0</b>	PLM <b>2104,0</b>	
LCF from stem on CL / on sheer		<b>5,834 / 6,099</b>	
Maximum beam station from stem		<b>6,770</b>	
RM Measured		<b>117,6kg·m</b>	
RM Default		<b>121,4kg·m</b>	
Limit of positive stability / Stab.Index		<b>106,4° / 106,4</b>	
Freeboard at mast at 0,000		<b>1,102</b>	



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**IMS Measurement Certificate**

<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>No</b>	Jumper Struts <b>None</b>		
Taper Hollows <b>Yes</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>12,070</b>	E <b>3,830</b>	MDT1 <b>0,121</b>	MW <b>0,189</b>
IG <b>13,875</b>	J <b>3,970</b>	MDL1 <b>0,189</b>	GO <b>0,209</b>
ISP <b>13,805</b>	SFJ <b>-0,050</b>	MDT2 <b>0,121</b>	BD <b>0,125</b>
BAS <b>1,475</b>	SPL <b>3,910</b>	MDL2 <b>0,189</b>	MWT
FSP <b>0,080</b>	TPS	TL <b>0,000</b>	MCG

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

<b>PROPELLER</b>			
Installation <b>Shaft exposed</b>	PRD <b>0,442</b>		
Type <b>Folding 2 blades</b>	PBW <b>0,108</b>		
Twin Screw <b>No</b>	PIPA <b>0,0054</b>		
PSA <b>18,200</b>	PHL <b>0,125</b>	ST3 <b>0,103</b>	ESL <b>0,912</b>
PSD <b>0,030</b>	ST1 <b>0,023</b>	ST4 <b>0,045</b>	
PHD <b>0,077</b>	ST2 <b>0,093</b>	ST5 <b>0,225</b>	

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<b>COMMENTS</b>	
Freeboards raised 1mm due to 20 Ltr Fuel in tank	

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

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,130	0,81	1,43	2,41	3,21	27,29	27,73	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	13,50	13,50	13,50	6,62	6,75	74,77		SL · (SFL + 4·SHW) / 6	
<b>Asymmetric</b>									
Not Available									

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0,05	0,66	1,28	2,57	3,91	5,28	13,90	36,27			11/04/2007	Unknow	

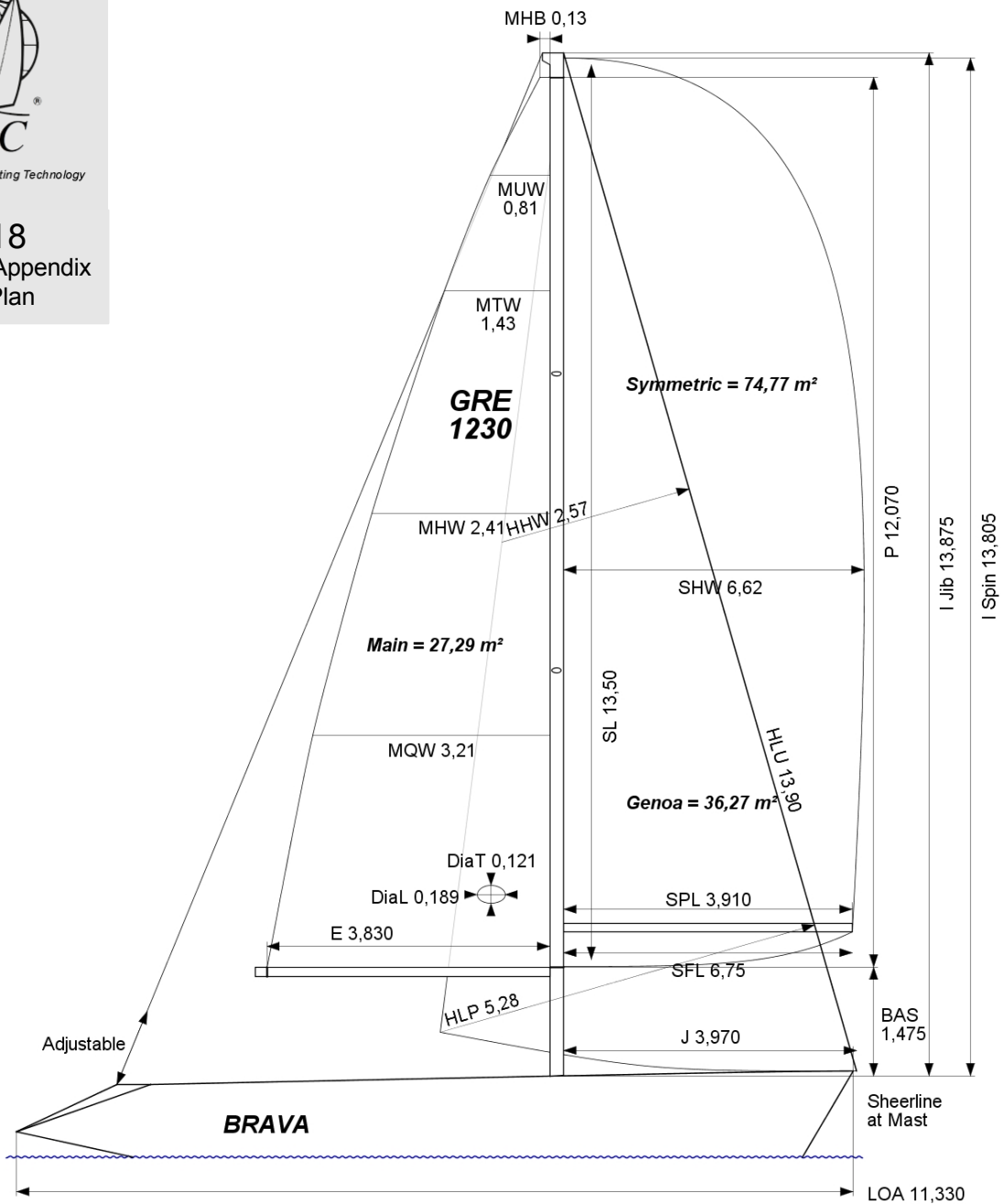
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>GRE-21</b>				
Date <b>15/03/2007</b>				
Comment				
Id	Item	Weight	Distance	VCG Description
2a	Anchor	10,0	0,70	BRUCE
2b	Anchor	10,0	8,80	DANFORD
2a	Chain	95,0	0,70	70m 8mm
2b	Chain	20,0	8,80	15m 8mm
4a	Tools	5,0	6,50	
4b	Tools	6,4	6,50	
Id	Item	Maker	Model	
5	Engine	YANMAR	3GM30F,	
Id	Item	Weight Description		

<b>MEASUREMENT INVENTORY</b>								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
6a	Tank	FUEL	INOX	55,0	8,30		0,0	
6b	Tank	WATER	PVC HARD	150,0	4,30		0,0	
6c	Tank	WATER	PVC HARD	150,0	4,30		0,0	
Id	Item	Weight	Distance	VCG Description				
3a	Battery	75,0	8,00	3 x 100 Ah				
9a	Misc	20,0	1,00	ANCHOR WINDLASS 1000W				
9c	Misc	10,0	6,60	WATER HEATER				



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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ORC	0,130	0,81	1,43	2,41	3,21	27,29					* Copied from legacy					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
2	0,05	0,66	1,28	2,57	3,91	5,28	13,90	133%	36,27				11/04/2007		Unknow	
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	13,50	13,50	13,50	6,62	6,75	74,77		16/04/2009		Nylon						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				