

<b>BOAT</b> Name <b>MUSUKO</b> Sail Nr <b>GRE-1451</b>	<b>GPH</b> <b>620.1</b>	<b>HULL</b> Length Overall <b>10.660m</b> Maximum Beam <b>3.636m</b> Displacement <b>5,430kg</b> Draft <b>2.192m</b> Plan Review IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.155%</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>FIRST 35</b> Designer <b>FARR</b> Builder <b>BENETEAU</b> Series <b>05/2009</b> Age <b>04/2010</b> Age Allowance <b>0.357%</b> Offset File <b>F242.OFF - 22/09/2009 18:09:52</b> Measurement by - <b>24/09/2014</b>		IMSL <b>9.652m</b> VCGD <b>0.139m</b> Sink <b>19.01kg/mm</b> RL <b>8.468m</b> VCGM <b>0.149m</b> WS <b>25.81m<sup>2</sup></b> LSM0 <b>9.494m</b> Displacement/Length ratio <b>6.3453</b>



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

**2020**  
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>604.7</b>			<b>680.2</b>		
Time on Time	<b>0.9923</b>			<b>0.9924</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>702.0</b>	<b>550.8</b>	<b>500.2</b>	<b>907.5</b>	<b>681.2</b>	<b>605.8</b>
Time on Time	<b>0.9615</b>	<b>1.2255</b>	<b>1.3494</b>	<b>0.7438</b>	<b>0.9909</b>	<b>1.1143</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1046.6</b>	<b>864.8</b>	<b>764.8</b>	<b>725.7</b>	<b>712.8</b>	<b>709.3</b>	<b>700.2</b>
52°	<b>684.3</b>	<b>577.2</b>	<b>524.8</b>	<b>506.1</b>	<b>500.2</b>	<b>497.8</b>	<b>491.6</b>
60°	<b>646.3</b>	<b>551.5</b>	<b>510.0</b>	<b>492.8</b>	<b>486.3</b>	<b>483.3</b>	<b>478.6</b>
75°	<b>618.1</b>	<b>533.4</b>	<b>499.2</b>	<b>480.7</b>	<b>468.1</b>	<b>461.2</b>	<b>456.6</b>
90°	<b>615.3</b>	<b>520.5</b>	<b>489.5</b>	<b>477.1</b>	<b>460.3</b>	<b>445.1</b>	<b>426.8</b>
110°	<b>608.3</b>	<b>513.1</b>	<b>478.4</b>	<b>455.0</b>	<b>439.1</b>	<b>427.5</b>	<b>408.0</b>
120°	<b>626.8</b>	<b>522.8</b>	<b>483.4</b>	<b>457.0</b>	<b>431.7</b>	<b>411.0</b>	<b>387.8</b>
135°	<b>699.3</b>	<b>568.1</b>	<b>504.5</b>	<b>474.8</b>	<b>449.2</b>	<b>424.0</b>	<b>376.0</b>
150°	<b>827.3</b>	<b>661.0</b>	<b>562.1</b>	<b>510.9</b>	<b>485.9</b>	<b>467.0</b>	<b>425.1</b>
Run VMG	<b>955.3</b>	<b>763.3</b>	<b>649.1</b>	<b>589.9</b>	<b>555.2</b>	<b>511.0</b>	<b>465.0</b>

**Certificate**  
Number **01070**  
ORC Ref **03420000ERV**  
Issued On **12/03/2020**  
VPP Ver. **2020 1.01**  
Valid until **28/02/2021**

**Crew Weight**  
Default **639kg**  
Maximum **680kg**  
Minimum\* **510kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>657.4</b>	<b>0.9127</b>
Non Spin OSN	<b>637.8</b>	<b>0.9407</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1001.0</b>	<b>814.0</b>	<b>706.9</b>	<b>657.8</b>	<b>634.0</b>	<b>610.1</b>	<b>582.6</b>
Circular Random	<b>845.7</b>	<b>685.7</b>	<b>601.8</b>	<b>554.6</b>	<b>526.5</b>	<b>508.3</b>	<b>484.1</b>
Coastal / Long Distance	<b>996.4</b>	<b>764.0</b>	<b>638.4</b>	<b>573.0</b>	<b>538.6</b>	<b>508.6</b>	<b>461.0</b>
Non Spinnaker	<b>917.9</b>	<b>735.3</b>	<b>636.8</b>	<b>579.6</b>	<b>544.8</b>	<b>522.5</b>	<b>494.7</b>

**Sails Limitations**

Headsails	Spinnakers
<b>5</b>	<b>4</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>42.8°</b>	<b>41.3°</b>	<b>40.5°</b>	<b>39.0°</b>	<b>38.8°</b>	<b>39.0°</b>	<b>39.8°</b>
Beat VMG	<b>3.44</b>	<b>4.16</b>	<b>4.71</b>	<b>4.96</b>	<b>5.05</b>	<b>5.08</b>	<b>5.14</b>
52°	<b>5.26</b>	<b>6.24</b>	<b>6.86</b>	<b>7.11</b>	<b>7.20</b>	<b>7.23</b>	<b>7.32</b>
60°	<b>5.57</b>	<b>6.53</b>	<b>7.06</b>	<b>7.30</b>	<b>7.40</b>	<b>7.45</b>	<b>7.52</b>
75°	<b>5.82</b>	<b>6.75</b>	<b>7.21</b>	<b>7.49</b>	<b>7.69</b>	<b>7.81</b>	<b>7.88</b>
90°	<b>5.85</b>	<b>6.92</b>	<b>7.35</b>	<b>7.55</b>	<b>7.82</b>	<b>8.09</b>	<b>8.44</b>
110°	<b>5.92</b>	<b>7.02</b>	<b>7.53</b>	<b>7.91</b>	<b>8.20</b>	<b>8.42</b>	<b>8.82</b>
120°	<b>5.74</b>	<b>6.89</b>	<b>7.45</b>	<b>7.88</b>	<b>8.34</b>	<b>8.76</b>	<b>9.28</b>
135°	<b>5.15</b>	<b>6.34</b>	<b>7.14</b>	<b>7.58</b>	<b>8.01</b>	<b>8.49</b>	<b>9.57</b>
150°	<b>4.35</b>	<b>5.45</b>	<b>6.40</b>	<b>7.05</b>	<b>7.41</b>	<b>7.71</b>	<b>8.47</b>
Run VMG	<b>3.77</b>	<b>4.72</b>	<b>5.55</b>	<b>6.10</b>	<b>6.48</b>	<b>7.05</b>	<b>7.74</b>
Gybe Angles	<b>144.0°</b>	<b>148.0°</b>	<b>148.5°</b>	<b>150.0°</b>	<b>174.0°</b>	<b>177.0°</b>	<b>178.0°</b>

**Class Division Length**  
CDL = **9.049**

**Storm Sails Areas**

Heavy Weather Jib	<b>28.91</b>
Storm Jib (JL=9.52)	<b>10.71</b>
Storm Trysail	<b>11.85</b>

**Owner**

<b>BOAT</b>	
Name <b>MUSUKO</b>	Sail Nr <b>GRE-1451</b>
File <b>GR1451</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>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>14.100</b>	E <b>4.800</b>
IG <b>14.559</b>	J <b>3.960</b>
ISP <b>15.717</b>	SFJ <b>0.000</b>
BAS <b>1.587</b>	SPL
FSD <b>0.035</b>	TPS <b>4.580</b>
MDT1 <b>0.110</b>	MW <b>0.201</b>
MDL1 <b>0.201</b>	GO <b>0.221</b>
MDT2 <b>0.110</b>	BD <b>0.170</b>
MDL2 <b>0.161</b>	MWT
TL <b>1.120</b>	MCG

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>24/09/2014</b>	SG <b>1.0230</b>	
FFM <b>1.417</b>	FF <b>1.411</b>	SFFP <b>0.422</b>
FAM <b>1.081</b>	FA <b>1.094</b>	SAFP <b>10.320</b>
W1 <b>72.0</b>	PD1 <b>541.6</b>	WD <b>11.077</b>
W2 <b>72.0</b>	PD2 <b>537.5</b>	GSA <b>1.0</b>
W3 <b>72.0</b>	PD3 <b>548.2</b>	RSA <b>1.0</b>
W4 <b>72.0</b>	PD4 <b>548.4</b>	PLM <b>9000.0</b>
LCF from stem on CL / on sheer	<b>5.828 / 6.077</b>	
Maximum beam station from stem	<b>6.761</b>	
RM Measured	<b>115.5kg-m</b>	
RM Default	<b>132.2kg-m</b>	
Limit of positive stability / Stab.Index	<b>116.6° / 115.9</b>	
Freeboard at mast at 3.960	<b>1.289</b>	



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


**2020**  
IMS Measurement  
Certificate

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

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0.403</b>	
Type <b>Folding 2 blades</b>	PBW <b>0.124</b>	
Twin Screw <b>No</b>	PIPA <b>0.0032</b>	
ST1 <b>0.041</b>	ST3 <b>0.181</b>	ST5 <b>0.222</b>
ST2 <b>0.181</b>	ST4 <b>0.111</b>	EDL <b>2.120</b>

**Certificate**

Number **01070**  
ORC Ref **03420000ERV**  
Issued On **12/03/2020**  
VPP Ver. **2020 1.01**  
Valid until **28/02/2021**



<b>COMMENTS</b>	

<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
	0.18	1.01	1.81	3.10	3.98	40.14 40.90 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric Not Available						
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area Formula
	16.52	14.20	15.36	8.32	8.04	105.78 AS · (SFL + 4·SHW) / 6

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.11	0.70	1.30	2.34	3.30	4.29	14.19	32.22	Y	No	15/10/2013	Carbon	Kevlar Light
0.10	0.67	1.25	2.26	3.25	4.30	14.14	31.54	Y	No	15/10/2013	Carbon	Kevlar Medium
0.07	0.57	1.11	2.15	3.20	4.23	13.91	29.86	Y	No	24/09/2014	Kevlar	Tafeta Roller
					3.86	12.93	25.41	Y	No	24/09/2014	Polyest	HWJ

<b>MEASUREMENT INVENTORY</b>				
Measurer <b>GRE-21</b>				
Date <b>24/09/2014</b>				
Comment				
<b>Internal Ballast total = 0.0</b>				
Id	Item	Weight	Distance	VCG Description
1	Engine			YANMAR 3YM30 SD
Id	Item	Weight Description		

<b>MEASUREMENT INVENTORY</b>						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtm Description
1	Tank	FUEL	PVC hard	75.0	8.40	75.0 (C)
2	Tank	WATER	PVC hard	100.0	4.80	0.0 (P)
3	Tank	WATER	PVC hard	100.0	4.80	0.0 (S)
4	Tank	HOLDING	PVC hard	80.0	8.70	0.0 (S)
Id	Item	Weight	Distance	VCG Description		
1	Battery	7.80		2 x 110 Ah (P)		
2	Battery	7.00		1 x 70 Ah (C)		
3	Battery	5.00		1 x 60 Ah (S)		
1	Misc	4.60		WATER HEATER 25L (C)		
2	Misc	6.30		GAS OVEN w 2 BURNERS (P)		
3	Misc			GENOA FURLER		

