

<b>BOAT</b>
Name <b>LAKEMANDA</b> Sail Nr <b>PER-2000</b>

<b>GPH</b>
<b>646.9</b>

<b>HULL</b>	Length Overall	<b>13.720 m</b>
	Maximum Beam	<b>4.242 m</b>
	Displacement	<b>11,061 kg</b>
	Draft	<b>2.202 m</b>
	IMS Reg. Division	<b>Cruiser/Racer</b>
	Dynamic Allowance	<b>1.049%</b>
	Fwd Accommodation	<b>Yes</b>
	Hull Construction	<b>Solid</b>
	Carbon Rudder	<b>No</b>
	Trim Tab	<b>No</b>
	IMS L	<b>11.803</b>
	VCGD	<b>-0.155</b>
	VCGM	<b>0.092</b>
	Sink	<b>28.07 kg/mm</b>
	Wetted Area	<b>37.31 m<sup>2</sup></b>



**2010**  
ORC International  
Certificate

<b>GENERAL</b>
Class <b>F45F5</b>
Designer <b>Farr</b>
Builder <b>Beneteau</b>
Series <b>01/1912</b>
Age <b>01/1989</b>
Age Allowance <b>0.975%</b>
Offset File <b>lakeman.off - 25/10/2001 09:53:00</b>
Measurement by <b>G IIZA - 07/07/2010</b>

<b>SCORING OPTIONS</b>						
	<b>OFFSHORE</b>			<b>INSHORE</b>		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	<b>646.9</b>			<b>729.4</b>		
Time On Time	<b>0.9276</b>			<b>0.9254</b>		
Performance Line	PLT	PLD		PLT	PLD	
	<b>0.702</b>	<b>29.3</b>		<b>0.740</b>	<b>134.7</b>	
Triple Number	Low	Medium	High	Low	Medium	High
	<b>0.8599</b>	<b>1.2010</b>	<b>1.4095</b>	<b>0.6432</b>	<b>0.9421</b>	<b>1.1573</b>

**Rating Office**

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Oceánicos del Peru

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1191.6</b>	<b>943.6</b>	<b>809.5</b>	<b>736.8</b>	<b>699.1</b>	<b>675.1</b>	<b>650.7</b>
52°	<b>751.7</b>	<b>600.0</b>	<b>526.0</b>	<b>489.8</b>	<b>471.0</b>	<b>460.7</b>	<b>449.4</b>
60°	<b>689.3</b>	<b>556.0</b>	<b>499.8</b>	<b>469.2</b>	<b>450.8</b>	<b>440.9</b>	<b>430.4</b>
75°	<b>640.6</b>	<b>526.3</b>	<b>480.2</b>	<b>451.6</b>	<b>434.7</b>	<b>420.0</b>	<b>405.0</b>
90°	<b>634.6</b>	<b>516.6</b>	<b>469.1</b>	<b>441.9</b>	<b>422.3</b>	<b>409.0</b>	<b>397.2</b>
110°	<b>670.2</b>	<b>538.1</b>	<b>482.8</b>	<b>451.9</b>	<b>429.3</b>	<b>410.2</b>	<b>380.2</b>
120°	<b>725.0</b>	<b>572.1</b>	<b>500.0</b>	<b>463.2</b>	<b>438.7</b>	<b>418.6</b>	<b>385.2</b>
135°	<b>847.3</b>	<b>655.5</b>	<b>547.1</b>	<b>492.5</b>	<b>460.4</b>	<b>437.8</b>	<b>402.2</b>
150°	<b>1013.6</b>	<b>772.8</b>	<b>632.9</b>	<b>544.1</b>	<b>494.4</b>	<b>463.3</b>	<b>422.4</b>
Run VMG	<b>1170.5</b>	<b>892.3</b>	<b>730.7</b>	<b>624.9</b>	<b>551.6</b>	<b>503.3</b>	<b>447.9</b>

<b>Certificate</b>	
Number	<b>PERI18</b>
ORC Ref	<b>PER00000339</b>
Issued On	<b>07/07/2010</b>
VPP Ver.	<b>2010 1.11</b>
Valid until	<b>31/03/2011</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1197.9</b>	<b>931.2</b>	<b>781.1</b>	<b>690.3</b>	<b>633.2</b>	<b>596.1</b>	<b>555.1</b>
Circular Random	<b>932.0</b>	<b>734.2</b>	<b>624.9</b>	<b>559.5</b>	<b>518.3</b>	<b>491.3</b>	<b>458.1</b>
Ocean for PCS	<b>998.0</b>	<b>768.5</b>	<b>638.3</b>	<b>558.0</b>	<b>505.5</b>	<b>469.3</b>	<b>421.9</b>
Non Spinnaker	<b>986.8</b>	<b>772.7</b>	<b>653.3</b>	<b>581.1</b>	<b>535.3</b>	<b>504.9</b>	<b>467.6</b>

<b>Crew Weight</b>	
Declared	<b>879 kg</b>
Default*	<b>879 kg</b>
Non Manual Power	<b>No</b>

<b>Special Scoring</b>		
	ToD	ToT
Double Handed	<b>647.2</b>	<b>0.9270</b>
Non Spinnaker	<b>676.9</b>	<b>0.8864</b>
N/S Perf. Line	<b>10.7</b>	<b>0.645</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>46.1°</b>	<b>45.4°</b>	<b>44.6°</b>	<b>42.6°</b>	<b>41.1°</b>	<b>40.0°</b>	<b>39.6°</b>
Beat VMG	<b>3.02</b>	<b>3.82</b>	<b>4.45</b>	<b>4.89</b>	<b>5.15</b>	<b>5.33</b>	<b>5.53</b>
52°	<b>4.79</b>	<b>6.00</b>	<b>6.84</b>	<b>7.35</b>	<b>7.64</b>	<b>7.81</b>	<b>8.01</b>
60°	<b>5.22</b>	<b>6.47</b>	<b>7.20</b>	<b>7.67</b>	<b>7.99</b>	<b>8.17</b>	<b>8.36</b>
75°	<b>5.62</b>	<b>6.84</b>	<b>7.50</b>	<b>7.97</b>	<b>8.28</b>	<b>8.57</b>	<b>8.89</b>
90°	<b>5.67</b>	<b>6.97</b>	<b>7.67</b>	<b>8.15</b>	<b>8.53</b>	<b>8.80</b>	<b>9.06</b>
110°	<b>5.37</b>	<b>6.69</b>	<b>7.46</b>	<b>7.97</b>	<b>8.39</b>	<b>8.78</b>	<b>9.47</b>
120°	<b>4.97</b>	<b>6.29</b>	<b>7.20</b>	<b>7.77</b>	<b>8.21</b>	<b>8.60</b>	<b>9.35</b>
135°	<b>4.25</b>	<b>5.49</b>	<b>6.58</b>	<b>7.31</b>	<b>7.82</b>	<b>8.22</b>	<b>8.95</b>
150°	<b>3.55</b>	<b>4.66</b>	<b>5.69</b>	<b>6.62</b>	<b>7.28</b>	<b>7.77</b>	<b>8.52</b>
Run VMG	<b>3.08</b>	<b>4.03</b>	<b>4.93</b>	<b>5.76</b>	<b>6.53</b>	<b>7.15</b>	<b>8.04</b>
Gybe Angles	<b>144.4°</b>	<b>148.2°</b>	<b>151.0°</b>	<b>156.6°</b>	<b>168.7°</b>	<b>176.8°</b>	<b>178.9°</b>

<b>Sails Limitations</b>		
Genoas	Jibs	Spinnakers
<b>3</b>	<b>2</b>	<b>3</b>
Spinnaker configuration <b>Symmetric</b>		

<b>Storm Sails Areas</b>	
Heavy Weather Jib	<b>36.57</b>
Storm Jib (JL=10.70)	<b>13.55</b>
Storm Trysail	<b>13.86</b>

<b>Owner</b>
<b>Jorge Luis Feliu</b>
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

<b>BOAT</b>	
Name <b>LAKEMANDA</b>	Sail Nr <b>PER-2000</b>
File <b>PER2000.dxt</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Fixed</b>	Spreaders <b>2</b>
Inner Forestay	Runners <b>0</b>
Carbon Mast <b>No</b>	Jumpers <b>None</b>
Taper Hollows <b>No</b>	Jib Furler <b>No</b>
Fiber Rigging <b>No</b>	w/o Backstay <b>No</b>
P <b>15.830</b>	E <b>5.002</b> MDT1 <b>0.130</b> TL <b>1.600</b>
IG <b>16.317</b>	J <b>4.630</b> MDL1 <b>0.244</b> MWT
ISP <b>16.267</b> SFJ <b>0.450</b> MDT2 <b>0.130</b> MCG	
SPS <b>4.477</b> SPL <b>4.570</b> MDL2 <b>0.180</b> CPW <b>2.960</b>	
BAS <b>1.817</b> TPS	MW <b>0.240</b> BD <b>0.226</b>
BAL <b>0.150</b> FSP <b>0.085</b> GO <b>0.280</b> BWT	

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

<b>COMMENTS</b>	
Remedido flotacion, estabilidad y velas	


<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>02/07/2010</b>		SG <b>1.0250</b>	
FFM <b>1.371</b>	FF <b>1.371</b>	SFFP <b>0.650</b>	
FAM <b>1.125</b>	FA <b>1.125</b>	SAFP <b>12.088</b>	
W1 <b>140.00</b>	PD1 <b>513.8</b>	WD <b>12.340</b>	
W2 <b>140.00</b>	PD2 <b>514.7</b>	GSA <b>1.0</b>	
W3 <b>140.00</b>	PD3 <b>513.8</b>	RSA <b>1.0</b>	
W4 <b>140.00</b>	PD4 <b>514.7</b>	PLM <b>9000.0</b>	
Maximum beam station from stern			<b>7.422</b>
RM Measured / Default			<b>264.6 / 260.8</b>
Limit of positive stability			<b>111.5°</b>
Stability Index			<b>116.7</b>
Freeboard at mast at 5.080			<b>1.231</b>

<b>PROPELLER</b>			
Installation <b>Shaft</b>	PRD <b>0.488</b>		
Type <b>Solid 3 blades</b>	PBW <b>0.169</b>		
Twin Screw <b>No</b>	PIPA <b>0.0318</b>		
PSA <b>19.000</b> PHL <b>0.081</b> ST3 <b>0.134</b> ESL <b>1.090</b>			
PSD <b>0.030</b> ST1 <b>0.045</b> ST4 <b>0.062</b>			
PHD <b>0.054</b> ST2 <b>0.124</b> ST5 <b>0.245</b>			

<b>WATER BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>										
<b>Mainsail</b>	<b>HB</b>	<b>MGT</b>	<b>MGU</b>	<b>MGM</b>	<b>MGL</b>	<b>MSW</b>	<b>Area</b>	<b>Area (r)</b>	<b>Formula</b>	
	0.150	0.98	1.80	3.14	4.19	21.80	46.34	47.02	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
<b>Jib/Genoa</b>	<b>JH</b>	<b>JGT</b>	<b>JGU</b>	<b>JGM</b>	<b>JGL</b>	<b>JL</b>	<b>LPG</b>			
	0.08	0.79	1.56	3.19	4.94	15.89	6.79	52.27	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)	
<b>Symmetric</b>	<b>SL</b>	<b>SMG</b>	<b>SF</b>							
	15.68	7.19	8.01				96.09		SL · (SF + 4·SMG) / 6	




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**2010**  
IMS Measurement  
Certificate

**Certificate**

Number **PER118**  
ORC Ref **PER00000339**  
Issued On **07/07/2010**  
VPP Ver. **2010 1.11**  
Valid until **31/03/2011**

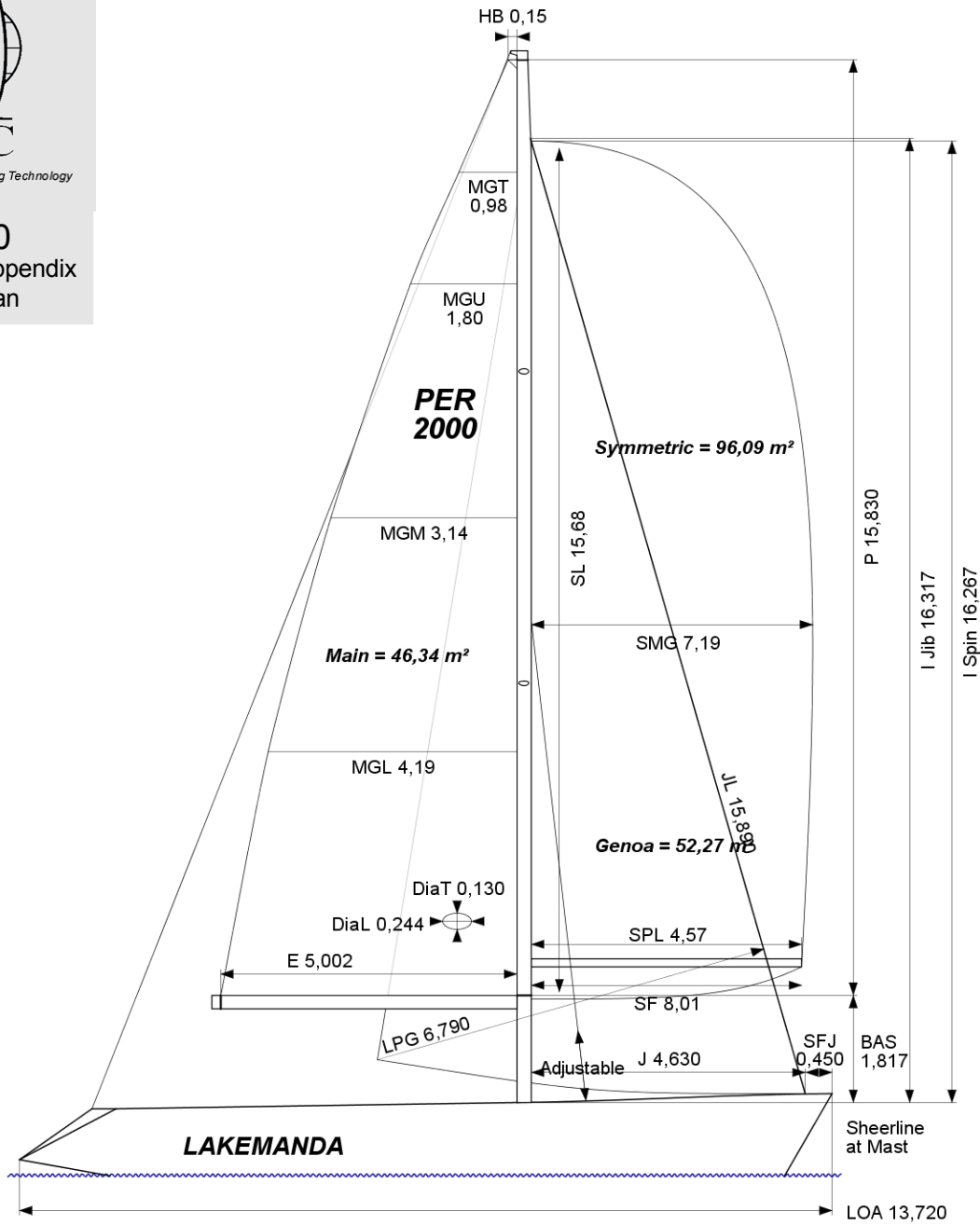


**AVOP**



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Sail Plan



**SAILS INVENTORY**

**MANSAIL**

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0.150	0.98	1.80	3.14	4.19	21.80	46.34	G LIZA	01/07/2010	QUANTUM	Kevlar	

**JIBS / GENOAS**

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Overlp	Area	Measurer	Meas.Date	Manufacture	Material	Comment
G1	0.08	0.79	1.56	3.19	4.94	6.79	15.89	147%	52.27	G LIZA	01/07/2010	QUANTUM	Kevlar	

**SYMMETRIC SPINNAKERS**

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	15.68	7.19	8.01	96.09	G LIZA	01/07/2010	QUANTUM	Polyester	

**ASYMMETRIC SPINNAKERS**

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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