

<b>BOAT</b>
Name <b>Tunante II</b> Sail Nr <b>PER 3005</b>

<b>GPH</b>
<b>586,5</b>

<b>HULL</b>					
Length Overall	<b>13,350 m</b>				
Maximum Beam	<b>4,240 m</b>				
Displacement	<b>11.232 kg</b>				
Draft	<b>2,264 m</b>				
IMS Reg. Division	<b>Cruiser/Racer</b>				
Dynamic Allowance	<b>0,691%</b>				
Fwd Accommodation	<b>Yes</b>				
Hull Construction	<b>Solid</b>				
Carbon Rudder	<b>No</b>				
Trim Tab	<b>No</b>				
IMS L	<b>12,453</b>	VCGD	<b>0,096</b>	VCGM	<b>0,043</b>
Sink	<b>30,19 kg/mm</b>	Wetted Area	<b>38,79 m<sup>2</sup></b>		



**2009**  
ORC International  
Certificate

<b>GENERAL</b>
Class <b>Dufour 44</b>
Designer <b>Felci Yachts</b>
Builder
Series <b>04/2002</b>
Age <b>10/2006</b>
Age Allowance <b>0,455%</b>
Offset File <b>dufour44.off - 29/12/2003 8:41:30</b>
Measurement by <b>Juan Carrion - 29/01/2009</b>

<b>SCORING OPTIONS</b>	<b>OFFSHORE</b>			<b>INSHORE</b>		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	<b>586,5</b>			<b>656,9</b>		
Time On Time	<b>1,0230</b>			<b>1,0275</b>		
Performance Line	PLT	PLD		PLT	PLD	
	<b>0,859</b>	<b>80,2</b>		<b>0,972</b>	<b>237,1</b>	
Triple Number	Low	Medium	High	Low	Medium	High
	<b>0,9873</b>	<b>1,3057</b>	<b>1,4917</b>	<b>0,7448</b>	<b>1,0342</b>	<b>1,2297</b>

**Rating Office**  
Federacion Peruana Vela  
Bolognesi 761, Callao  
5, Peru  
Aguiles Rubina, Rat. Ofi.  
rubina@terra.com.pe

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1027,2</b>	<b>841,9</b>	<b>738,0</b>	<b>686,3</b>	<b>655,5</b>	<b>635,9</b>	<b>616,0</b>
52°	<b>652,3</b>	<b>538,6</b>	<b>488,0</b>	<b>461,5</b>	<b>446,9</b>	<b>438,2</b>	<b>429,9</b>
60°	<b>603,8</b>	<b>507,7</b>	<b>466,1</b>	<b>440,4</b>	<b>429,1</b>	<b>422,8</b>	<b>415,6</b>
75°	<b>564,0</b>	<b>486,1</b>	<b>449,1</b>	<b>426,5</b>	<b>412,6</b>	<b>403,2</b>	<b>393,2</b>
90°	<b>562,1</b>	<b>475,9</b>	<b>435,4</b>	<b>415,8</b>	<b>406,3</b>	<b>399,9</b>	<b>377,6</b>
110°	<b>573,9</b>	<b>485,5</b>	<b>444,2</b>	<b>420,5</b>	<b>402,3</b>	<b>384,1</b>	<b>365,3</b>
120°	<b>610,7</b>	<b>504,8</b>	<b>457,8</b>	<b>428,6</b>	<b>410,3</b>	<b>391,5</b>	<b>356,5</b>
135°	<b>708,1</b>	<b>566,6</b>	<b>491,9</b>	<b>452,2</b>	<b>426,8</b>	<b>410,0</b>	<b>375,4</b>
150°	<b>852,3</b>	<b>668,4</b>	<b>560,5</b>	<b>495,3</b>	<b>457,4</b>	<b>431,1</b>	<b>398,3</b>
Run VMG	<b>984,1</b>	<b>771,9</b>	<b>647,2</b>	<b>565,9</b>	<b>511,4</b>	<b>473,1</b>	<b>424,8</b>

<b>Certificate</b>
Number <b>PERI28</b>
ORC Ref <b>PER00000026</b>
Issued On <b>17/06/2009</b>
VPP Ver. <b>1.11</b>
Valid until <b>30/03/2010</b>

<b>Crew Weight</b>	
Declared	<b>967 kg</b>
Default*	<b>967 kg</b>

<b>Special Scoring</b>	
ToD	ToT
Double Handed <b>587,4</b>	<b>1,0214</b>
Non Spinnaker <b>625,8</b>	<b>0,9587</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1024,1</b>	<b>818,6</b>	<b>703,2</b>	<b>634,3</b>	<b>590,4</b>	<b>560,7</b>	<b>525,7</b>
Circular Random	<b>817,9</b>	<b>656,3</b>	<b>568,5</b>	<b>516,7</b>	<b>484,1</b>	<b>462,4</b>	<b>434,4</b>
Ocean for PCS	<b>875,4</b>	<b>687,2</b>	<b>581,4</b>	<b>516,3</b>	<b>473,3</b>	<b>442,7</b>	<b>399,1</b>
Non Spinnaker	<b>889,9</b>	<b>706,9</b>	<b>605,7</b>	<b>544,8</b>	<b>506,1</b>	<b>480,3</b>	<b>448,1</b>

<b>Sails Limitations</b>		
Genoa	Jibs	Spinnakers
<b>4</b>	<b>3</b>	<b>4</b>
Spinnaker configuration <b>Symmetric</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>45,7°</b>	<b>44,6°</b>	<b>43,4°</b>	<b>41,0°</b>	<b>39,6°</b>	<b>38,8°</b>	<b>38,0°</b>
Beat VMG	<b>3,50</b>	<b>4,28</b>	<b>4,88</b>	<b>5,25</b>	<b>5,49</b>	<b>5,66</b>	<b>5,84</b>
52°	<b>5,52</b>	<b>6,68</b>	<b>7,38</b>	<b>7,80</b>	<b>8,06</b>	<b>8,22</b>	<b>8,37</b>
60°	<b>5,96</b>	<b>7,09</b>	<b>7,72</b>	<b>8,18</b>	<b>8,39</b>	<b>8,52</b>	<b>8,66</b>
75°	<b>6,38</b>	<b>7,41</b>	<b>8,02</b>	<b>8,44</b>	<b>8,72</b>	<b>8,93</b>	<b>9,15</b>
90°	<b>6,40</b>	<b>7,56</b>	<b>8,27</b>	<b>8,66</b>	<b>8,86</b>	<b>9,00</b>	<b>9,53</b>
110°	<b>6,27</b>	<b>7,41</b>	<b>8,10</b>	<b>8,56</b>	<b>8,95</b>	<b>9,37</b>	<b>9,85</b>
120°	<b>5,89</b>	<b>7,13</b>	<b>7,86</b>	<b>8,40</b>	<b>8,77</b>	<b>9,20</b>	<b>10,10</b>
135°	<b>5,08</b>	<b>6,35</b>	<b>7,32</b>	<b>7,96</b>	<b>8,43</b>	<b>8,78</b>	<b>9,59</b>
150°	<b>4,22</b>	<b>5,39</b>	<b>6,42</b>	<b>7,27</b>	<b>7,87</b>	<b>8,35</b>	<b>9,04</b>
Run VMG	<b>3,66</b>	<b>4,66</b>	<b>5,56</b>	<b>6,36</b>	<b>7,04</b>	<b>7,61</b>	<b>8,47</b>
Gybe Angles	<b>141,4°</b>	<b>145,9°</b>	<b>147,9°</b>	<b>157,3°</b>	<b>166,1°</b>	<b>170,2°</b>	<b>175,8°</b>

<b>Storm Sails Areas</b>	
Heavy Weather Jib	<b>42,88</b>
Storm Jib (JL=11,59)	<b>15,88</b>
Storm Trysail	<b>16,26</b>

**Owner**  
Ruben Loaiza  
Carlos Porras Osoros 370-1701  
rloaiza@prima.com.pe

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

<b>BOAT</b>	
Name <b>Tunante II</b> File <b>TUNANII.dxt</b>	Sail Nr <b>PER 3005</b> Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>29/01/2009</b>		SG <b>1,0250</b>
FFM <b>1,440</b>	FF <b>1,440</b>	SFFP <b>0,502</b>
FAM <b>1,130</b>	FA <b>1,130</b>	SAFP <b>12,353</b>
W1 <b>35,250</b>	PD1 <b>58,8</b>	WD <b>14,130</b>
W2 <b>70,500</b>	PD2 <b>117,5</b>	GSA <b>38,0</b>
W3 <b>105,75</b>	PD3 <b>176,2</b>	RSA <b>7800,0</b>
W4 <b>141,00</b>	PD4 <b>235,0</b>	PLM <b>2130,0</b>
Maximum beam station from stem		<b>8,556</b>
RM Measured / Default		<b>314,5 / 300,1</b>
Limit of positive stability		<b>113,1°</b>
Stability Index		<b>118,9</b>
Freeboard at mast at 5,370		<b>1,235</b>



World Leader in Rating Technology

**2009**  
IMS Measurement  
Certificate

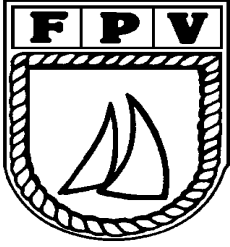
<b>RIG</b>				
Forestay Tension <b>Aft</b>	Spreaders <b>3</b>			
Inner Forestay <b>None Fitted</b>	Runners <b>0</b>			
Carbon Mast <b>No</b>	Jumpers <b>None</b>			
Taper Hollows <b>No</b>	w/o Backstay <b>No</b>			
P <b>16,740</b>	E <b>5,550</b>	MDT1 <b>0,120</b>	TL <b>1,000</b>	
IG <b>17,550</b>	J <b>5,220</b>	MDL1 <b>0,235</b>	MWT <b>303,00</b>	
ISP <b>17,650</b>	SFJ <b>0,150</b>	MDT2 <b>0,120</b>	MCG <b>5,860</b>	
SPS <b>3,910</b>	SPL <b>5,120</b>	MDL2 <b>0,180</b>	CPW <b>2,770</b>	
BAS <b>1,720</b>	TPS <b></b>	MW <b>0,180</b>	BD <b>0,190</b>	
BAL <b>0,280</b>	FSP <b>0,080</b>	GO <b>0,260</b>	BWT <b></b>	

<b>HEAVY ITEMS</b>			
Bow Thruster <b>No</b>	Generator <b>No</b>	Air Condition <b>No</b>	
Windlass <b>Yes</b>	Jib Furler <b>No</b>	Desalinator <b>No</b>	
Heavy Deck <b>No</b>	Main Furler <b>No</b>		
Headliners <b>No</b>	Water Heater <b>Yes</b>		
Anchor Weight <b>10,0</b>	Heavy Items Adjustment <b>0,0013</b>		
Anchor LCG	Total Gyradius Adjustment <b>0,0384</b>		

<b>PROPELLER</b>		
Installation <b>Strut Drive</b>	PRD <b>0,460</b>	
Type <b>Folding</b>	PBW <b>0,120</b>	
Twin Screw <b>No</b>	PIPA <b>0,0040</b>	
ST1 <b>0,063</b>	ST3 <b>0,180</b>	ST5 <b>0,310</b>
ST2 <b>0,180</b>	ST4 <b>0,108</b>	EDL <b>3,150</b>

**Certificate**

Number **PER128**  
 ORC Ref **PER00000026**  
 Issued On **17/06/2009**  
 VPP Ver. 1.11  
 Valid until **30/03/2010**



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

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

<b>COMMENTS</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>										
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula		
	0,170	1,08	1,97	3,41	4,58	30,00	53,67	$P/8 \cdot (E + 2 \cdot MGL + 2 \cdot MGM + 1.5 \cdot MGU + MGT + 0.5 \cdot HB)$		
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG	Area	Formula	
	0,00	0,95	1,89	3,78	5,67	17,68	7,56	66,83	$0.1125 \cdot JL \cdot (1.445 \cdot LPG + 2 \cdot JGL + 2 \cdot JGM + 1.5 \cdot JGU + JGT + 0.5 \cdot JH)$	
Symmetric	SL	SMG	SF				Area	Formula		
	17,74	9,40	9,38				138,90	$SL \cdot (SF + 4 \cdot SMG) / 6$		

