

<b>BOAT</b>
Name <b>AKUN</b>
Sail Nr <b>PU-120</b>

<b>GPH</b>
<b>632,2</b>

<b>HULL</b>
Length Overall <b>12,800 m</b>
Maximum Beam <b>3,972 m</b>
Displacement <b>9.537 kg</b>
Draft <b>2,214 m</b>
IMS Reg. Division <b>Cruiser/Racer</b>
Dynamic Allowance <b>0,576%</b>
Fwd Accommodation <b>Yes</b>
Hull Construction <b>Solid</b>
Carbon Rudder <b>No</b>
Trim Tab <b>No</b>
IMS L <b>10,814</b> VCGD <b>-0,014</b> VCGM <b>-0,024</b>
Sink <b>23,62 kg/mm</b> Wetted Area <b>33,24 m<sup>2</sup></b>



**2009**  
ORC International  
Certificate

<b>GENERAL</b>
Class
Designer <b>GERMAN FRERS</b>
Builder <b>BENETEAU</b>
Series <b>03/1983</b>
Age <b>03/1983</b>
Age Allowance <b>1,300%</b>
Offset File <b>nais91.OFF - 07/07/1991 19:50:22</b>
Measurement by <b>Juan Carrion - 21/06/1991</b>

<b>SCORING OPTIONS</b>		
	<b>OFFSHORE</b>	<b>INSHORE</b>
	<b>COASTAL / LONG DISTANCE</b>	<b>WINDWARD / LEEWARD</b>
Time On Distance	<b>632,2</b>	<b>706,7</b>
Time On Time	<b>0,9490</b>	<b>0,9551</b>
Performance Line	PLT <b>0,823</b> PLD <b>97,8</b>	PLT <b>0,934</b> PLD <b>257,5</b>
Triple Number	Low <b>0,9216</b> Medium <b>1,2097</b> High <b>1,3694</b>	Low <b>0,6982</b> Medium <b>0,9674</b> High <b>1,1411</b>

**Rating Office**  
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<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1095,0</b>	<b>901,2</b>	<b>792,2</b>	<b>739,3</b>	<b>708,0</b>	<b>688,0</b>	<b>668,4</b>
52°	<b>697,0</b>	<b>575,4</b>	<b>526,9</b>	<b>502,7</b>	<b>488,9</b>	<b>480,0</b>	<b>470,8</b>
60°	<b>647,4</b>	<b>545,2</b>	<b>506,1</b>	<b>483,1</b>	<b>470,7</b>	<b>463,3</b>	<b>455,3</b>
75°	<b>606,3</b>	<b>524,7</b>	<b>489,8</b>	<b>467,4</b>	<b>453,1</b>	<b>443,6</b>	<b>434,1</b>
90°	<b>607,1</b>	<b>516,7</b>	<b>478,5</b>	<b>457,5</b>	<b>446,3</b>	<b>440,0</b>	<b>421,0</b>
110°	<b>622,5</b>	<b>525,8</b>	<b>484,7</b>	<b>459,1</b>	<b>441,0</b>	<b>425,7</b>	<b>407,2</b>
120°	<b>661,9</b>	<b>544,2</b>	<b>496,4</b>	<b>466,5</b>	<b>446,2</b>	<b>428,7</b>	<b>400,2</b>
135°	<b>758,6</b>	<b>605,5</b>	<b>527,9</b>	<b>488,9</b>	<b>462,8</b>	<b>444,0</b>	<b>410,4</b>
150°	<b>908,8</b>	<b>711,6</b>	<b>594,2</b>	<b>528,8</b>	<b>492,0</b>	<b>466,2</b>	<b>430,7</b>
Run VMG	<b>1049,4</b>	<b>821,7</b>	<b>686,1</b>	<b>599,4</b>	<b>543,8</b>	<b>505,9</b>	<b>458,1</b>

<b>Certificate</b>
Number <b>PER112</b>
ORC Ref <b>PER00000023</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>797 kg</b>
Default* <b>797 kg</b>

<b>Special Scoring</b>
ToD ToT
Double Handed <b>634,3 0,9460</b>
Non Spinnaker <b>671,9 0,8930</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1092,0</b>	<b>873,7</b>	<b>750,8</b>	<b>678,3</b>	<b>633,4</b>	<b>603,7</b>	<b>568,9</b>
Circular Random	<b>877,9</b>	<b>705,8</b>	<b>613,0</b>	<b>558,7</b>	<b>525,1</b>	<b>503,1</b>	<b>475,3</b>
Ocean for PCS	<b>938,5</b>	<b>738,5</b>	<b>626,9</b>	<b>558,8</b>	<b>514,4</b>	<b>483,4</b>	<b>440,0</b>
Non Spinnaker	<b>951,0</b>	<b>757,0</b>	<b>650,4</b>	<b>586,7</b>	<b>546,7</b>	<b>520,4</b>	<b>488,3</b>

<b>Sails Limitations</b>
Genoa <b>1</b> Jibs <b>0</b> Spinnakers <b>3</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>45,9°</b>	<b>45,0°</b>	<b>43,4°</b>	<b>40,9°</b>	<b>39,4°</b>	<b>38,5°</b>	<b>37,8°</b>
Beat VMG	<b>3,29</b>	<b>3,99</b>	<b>4,54</b>	<b>4,87</b>	<b>5,08</b>	<b>5,23</b>	<b>5,39</b>
52°	<b>5,16</b>	<b>6,26</b>	<b>6,83</b>	<b>7,16</b>	<b>7,36</b>	<b>7,50</b>	<b>7,65</b>
60°	<b>5,56</b>	<b>6,60</b>	<b>7,11</b>	<b>7,45</b>	<b>7,65</b>	<b>7,77</b>	<b>7,91</b>
75°	<b>5,94</b>	<b>6,86</b>	<b>7,35</b>	<b>7,70</b>	<b>7,95</b>	<b>8,11</b>	<b>8,29</b>
90°	<b>5,93</b>	<b>6,97</b>	<b>7,52</b>	<b>7,87</b>	<b>8,07</b>	<b>8,18</b>	<b>8,55</b>
110°	<b>5,78</b>	<b>6,85</b>	<b>7,43</b>	<b>7,84</b>	<b>8,16</b>	<b>8,46</b>	<b>8,84</b>
120°	<b>5,44</b>	<b>6,62</b>	<b>7,25</b>	<b>7,72</b>	<b>8,07</b>	<b>8,40</b>	<b>9,00</b>
135°	<b>4,75</b>	<b>5,95</b>	<b>6,82</b>	<b>7,36</b>	<b>7,78</b>	<b>8,11</b>	<b>8,77</b>
150°	<b>3,96</b>	<b>5,06</b>	<b>6,06</b>	<b>6,81</b>	<b>7,32</b>	<b>7,72</b>	<b>8,36</b>
Run VMG	<b>3,43</b>	<b>4,38</b>	<b>5,25</b>	<b>6,01</b>	<b>6,62</b>	<b>7,12</b>	<b>7,86</b>
Gybe Angles	<b>142,3°</b>	<b>147,1°</b>	<b>148,6°</b>	<b>160,0°</b>	<b>168,5°</b>	<b>172,3°</b>	<b>175,8°</b>

<b>Storm Sails Areas</b>
Heavy Weather Jib <b>35,70</b>
Storm Jib (JL=10,57) <b>13,22</b>
Storm Trysail <b>11,32</b>

**Owner**  
**Eduardo Wong**  
**Augusto Angulo 130**  
**Miraflores, Lima 18**  
**lwong@ewong.com**

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

Signature

<b>BOAT</b>	
Name <b>AKUN</b>	Sail Nr <b>PU-120</b>
File <b>AKUN.dxt</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>
Inner Forestay <b>Fixed</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>14,260</b>	E <b>4,535</b> MDT1 <b>0,140</b> TL <b>0,000</b>
IG <b>16,134</b>	J <b>5,100</b> MDL1 <b>0,220</b> MWT
ISP <b>16,134</b>	SFJ MDT2 <b>0,140</b> MCG
SPS <b>4,734</b>	SPL <b>5,100</b> MDL2 <b>0,220</b> CPW <b>2,580</b>
BAS <b>1,634</b>	TPS MW <b>0,220</b> BD <b>0,150</b>
BAL <b>0,130</b>	FSP <b>0,076</b> GO <b>0,260</b> BWT

<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>Yes</b>	Desalinator <b>No</b>	
Heavy Deck <b>No</b>	Main Furler <b>No</b>		
Headliners <b>No</b>	Water Heater <b>No</b>		
Anchor Weight <b>15,0</b>	Heavy Items Adjustment <b>0,0017</b>		
Anchor LCG <b>1,20</b>	Total Gyradius Adjustment <b>0,0477</b>		

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

<b>COMMENTS</b>	
ex-Naisan	

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>28/05/2004</b>		SG <b>1,0255</b>
FFM <b>1,358</b>	FF <b>1,358</b>	SFFP <b>0,600</b>
FAM <b>1,040</b>	FA <b>1,040</b>	SAFP <b>11,980</b>
W1 <b>27,250</b>	PD1 <b>61,0</b>	WD <b>12,540</b>
W2 <b>54,500</b>	PD2 <b>122,0</b>	GSA <b>38,0</b>
W3 <b>81,750</b>	PD3 <b>183,0</b>	RSA <b>7800,0</b>
W4 <b>109,00</b>	PD4 <b>243,0</b>	PLM <b>2130,0</b>
Maximum beam station from stem		<b>7,403</b>
RM Measured / Default		<b>207,8 / 199,8</b>
Limit of positive stability		<b>117,3°</b>
Stability Index		<b>122,5</b>
Freeboard at mast at 5,100		<b>1,168</b>

<b>PROPELLER</b>			
Installation <b>Out of Aperture</b>	PRD <b>0,440</b>		
Type <b>Folding</b>	PBW <b>0,109</b>		
Twin Screw <b>No</b>	PIPA <b>0,0060</b>		
PSA <b>20,000</b>	PHL <b>0,123</b>	ST3 <b>0,105</b>	ESL <b>0,900</b>
PSD <b>0,032</b>	ST1 <b>0,016</b>	ST4 <b>0,058</b>	
PHD <b>0,078</b>	ST2 <b>0,102</b>	ST5 <b>0,180</b>	

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

<b>CENTERBOARD</b>	
N/A	

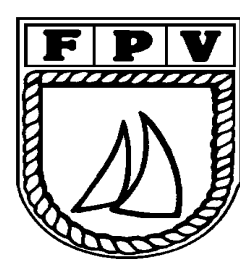
<b>SAILS (Maximum Areas)</b>									
<b>Mainsail</b>	<b>HB</b>	<b>MGT</b>	<b>MGU</b>	<b>MGM</b>	<b>MGL</b>	<b>MSW</b>	<b>Area</b>	<b>Formula</b>	
	0,175	1,00	1,74	2,90	3,76	29,00	38,42	$P/8 \cdot (E + 2 \cdot MGL + 2 \cdot MGM + 1.5 \cdot MGU + MGT + 0.5 \cdot HB)$	
<b>Jib/Genoa</b>	<b>JH</b>	<b>JGT</b>	<b>JGU</b>	<b>JGM</b>	<b>JGL</b>	<b>JL</b>	<b>LPG</b>		
	0,00	0,94	1,88	3,76	5,63	17,04	7,51	$0.1125 \cdot JL \cdot (1.445 \cdot LPG + 2 \cdot JGL + 2 \cdot JGM + 1.5 \cdot JGU + JGT + 0.5 \cdot JH)$	
<b>Symmetric</b>	<b>SL</b>	<b>SMG</b>	<b>SF</b>						
	15,82	9,05	9,18				119,65	$SL \cdot (SF + 4 \cdot SMG) / 6$	



**2009**  
IMS Measurement  
Certificate

**Certificate**

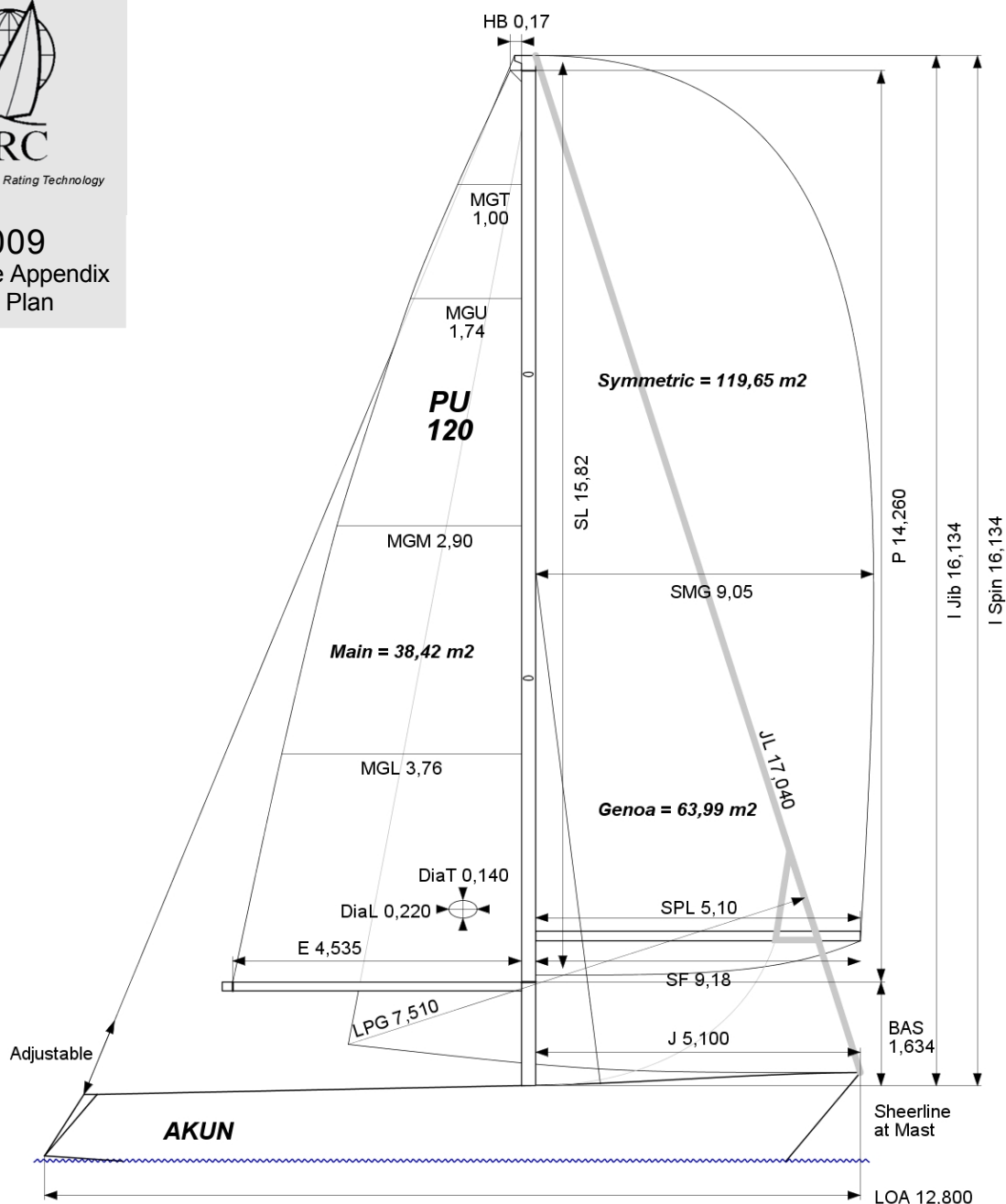
Number **PER112**  
ORC Ref **PER00000023**  
Issued On **17/06/2009**  
VPP Ver. 1.11  
Valid until **30/03/2010**





World Leader in Rating Technology

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Sail Plan



**SAILS INVENTORY**

MAINSAIL														
Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Date	Manufacture	Material	Comment		
ORC	0,175	1,00	1,74	2,90	3,76	29,00	38,42					* Copied from legacy		
JIBS / GENOAS														
Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC						7,51	0,00	147%	63,99					* Copied from
SYMMETRIC SPINNAKERS														
Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ORC	15,82	9,05	0,00	119,65					* Copied from legacy *					
ASYMMETRIC SPINNAKERS														
Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment		