

<b>BOAT</b>
Name <b>CENTAUR</b>
Sail Nr <b>EST 371</b>

<b>GPH</b>
<b>676,0</b>

<b>HULL</b>	
Length Overall	<b>9,500 m</b>
Maximum Beam	<b>3,223 m</b>
Displacement	<b>3 754 kg</b>
Draft	<b>1,916 m</b>
IMS Reg. Division	<b>Cruiser/Racer</b>
Dynamic Allowance	<b>0,599%</b>
Fwd Accommodation	<b>Yes</b>
Hull Construction	<b>Solid</b>
Carbon Rudder	<b>No</b>
Trim Tab	<b>No</b>
IMS L	<b>9,033</b> VCGD <b>0,038</b> VCGM <b>0,043</b>
Sink	<b>15,55 kg/mm</b> Wetted Area <b>20,33 m<sup>2</sup></b>



**2009**  
ORC International  
Certificate

<b>GENERAL</b>
Class <b>First 31.7</b>
Designer <b>Farr</b>
Builder <b>Beneteau S.A.</b>
Series <b>01.1998</b>
Age <b>04.2005</b>
Age Allowance <b>0,715%</b>
Offset File <b>IFRST317.OFF - 16.02.2000 15:46:48</b>
Measurement by <b>A.Tetsmann - 09.05.2006</b>

<b>SCORING OPTIONS</b>						
	<b>OFFSHORE</b>			<b>INSHORE</b>		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	<b>676,0</b>			<b>754,1</b>		
Time On Time	<b>0,8876</b>			<b>0,8951</b>		
Performance Line	PLT	PLD		PLT	PLD	
	<b>0,748</b>	<b>82,0</b>		<b>0,858</b>	<b>244,3</b>	
Triple Number	Low	Medium	High	Low	Medium	High
	<b>0,8547</b>	<b>1,1346</b>	<b>1,2949</b>	<b>0,6495</b>	<b>0,9087</b>	<b>1,0738</b>

<b>Rating Office</b>
Estonian Yachting Union
Veiko Rosme
Regati 1, 11911, Tallinn
Estonia

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1178,2</b>	<b>954,1</b>	<b>837,6</b>	<b>781,3</b>	<b>749,4</b>	<b>729,3</b>	<b>710,5</b>
52°	<b>755,0</b>	<b>623,0</b>	<b>566,4</b>	<b>531,2</b>	<b>515,9</b>	<b>508,1</b>	<b>501,0</b>
60°	<b>703,2</b>	<b>592,9</b>	<b>543,6</b>	<b>511,4</b>	<b>499,5</b>	<b>493,2</b>	<b>485,9</b>
75°	<b>663,7</b>	<b>571,7</b>	<b>519,6</b>	<b>497,8</b>	<b>483,5</b>	<b>469,1</b>	<b>457,0</b>
90°	<b>647,4</b>	<b>554,5</b>	<b>507,0</b>	<b>485,7</b>	<b>469,4</b>	<b>460,9</b>	<b>437,9</b>
110°	<b>672,7</b>	<b>570,4</b>	<b>517,3</b>	<b>491,9</b>	<b>467,6</b>	<b>443,8</b>	<b>415,4</b>
120°	<b>718,3</b>	<b>592,4</b>	<b>533,8</b>	<b>499,9</b>	<b>477,8</b>	<b>452,1</b>	<b>405,9</b>
135°	<b>828,2</b>	<b>656,8</b>	<b>572,9</b>	<b>523,4</b>	<b>496,7</b>	<b>475,3</b>	<b>429,0</b>
150°	<b>986,2</b>	<b>767,3</b>	<b>639,9</b>	<b>570,4</b>	<b>524,6</b>	<b>498,3</b>	<b>455,1</b>
Run VMG	<b>1138,8</b>	<b>885,9</b>	<b>737,9</b>	<b>642,0</b>	<b>581,3</b>	<b>537,3</b>	<b>488,3</b>

<b>Certificate</b>
Number <b>EST371</b>
ORC Ref <b>EST00000059</b>
Issued On <b>2.05.2009</b>
VPP Ver. <b>1.11</b>
Valid until <b>31.12.2009</b>

<b>Crew Weight</b>
Declared <b>480 kg</b>
Default* <b>560 kg</b>

<b>Special Scoring</b>	
ToD	ToT
Double <b>678,7</b>	<b>0,8840</b>
Non Spinnaker <b>718,0</b>	<b>0,8356</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1178,3</b>	<b>934,3</b>	<b>800,0</b>	<b>721,5</b>	<b>673,1</b>	<b>640,5</b>	<b>606,5</b>
Circular Random	<b>944,9</b>	<b>756,9</b>	<b>655,0</b>	<b>595,0</b>	<b>557,5</b>	<b>532,5</b>	<b>500,4</b>
Ocean for PCS	<b>1009,6</b>	<b>791,4</b>	<b>669,3</b>	<b>594,5</b>	<b>545,5</b>	<b>510,7</b>	<b>461,4</b>
Non Spinnaker	<b>1021,7</b>	<b>810,8</b>	<b>694,6</b>	<b>625,3</b>	<b>581,7</b>	<b>553,0</b>	<b>517,8</b>

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

<b>Storm Sails Areas</b>	
Heavy Weather Jib	<b>18,50</b>
Storm Jib (JL=7,61)	<b>6,85</b>
Storm Trysail	<b>7,34</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>44,4°</b>	<b>43,2°</b>	<b>41,5°</b>	<b>39,7°</b>	<b>38,4°</b>	<b>37,6°</b>	<b>37,2°</b>
Beat VMG	<b>3,06</b>	<b>3,77</b>	<b>4,30</b>	<b>4,61</b>	<b>4,80</b>	<b>4,94</b>	<b>5,07</b>
52°	<b>4,77</b>	<b>5,78</b>	<b>6,36</b>	<b>6,78</b>	<b>6,98</b>	<b>7,09</b>	<b>7,19</b>
60°	<b>5,12</b>	<b>6,07</b>	<b>6,62</b>	<b>7,04</b>	<b>7,21</b>	<b>7,30</b>	<b>7,41</b>
75°	<b>5,42</b>	<b>6,30</b>	<b>6,93</b>	<b>7,23</b>	<b>7,45</b>	<b>7,68</b>	<b>7,88</b>
90°	<b>5,56</b>	<b>6,49</b>	<b>7,10</b>	<b>7,41</b>	<b>7,67</b>	<b>7,81</b>	<b>8,22</b>
110°	<b>5,35</b>	<b>6,31</b>	<b>6,96</b>	<b>7,32</b>	<b>7,70</b>	<b>8,11</b>	<b>8,67</b>
120°	<b>5,01</b>	<b>6,08</b>	<b>6,74</b>	<b>7,20</b>	<b>7,53</b>	<b>7,96</b>	<b>8,87</b>
135°	<b>4,35</b>	<b>5,48</b>	<b>6,28</b>	<b>6,88</b>	<b>7,25</b>	<b>7,57</b>	<b>8,39</b>
150°	<b>3,65</b>	<b>4,69</b>	<b>5,63</b>	<b>6,31</b>	<b>6,86</b>	<b>7,22</b>	<b>7,91</b>
Run VMG	<b>3,16</b>	<b>4,06</b>	<b>4,88</b>	<b>5,61</b>	<b>6,19</b>	<b>6,70</b>	<b>7,37</b>
Gybe Angles	<b>144,5°</b>	<b>148,1°</b>	<b>152,8°</b>	<b>162,9°</b>	<b>170,1°</b>	<b>170,7°</b>	<b>176,1°</b>

<b>Owner</b>
MTÜ RUATNEL
Valguse 2
Kuussaare, Estonia
SMS
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

<b>BOAT</b>	
Name <b>CENTAUR</b>	Sail Nr <b>EST 371</b>
File <b>Est0371.dxt</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>			
Forestay Tension <b>Aft</b>	Spreaders <b>2</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>10,780</b>	E <b>3,890</b>	MDT1 <b>0,101</b>	TL <b>0,000</b>
IG <b>11,640</b>	J <b>3,460</b>	MDL1 <b>0,156</b>	MWT <b>93,00</b>
ISP <b>11,680</b>	SFJ	MDT2 <b>0,101</b>	MCG <b>4,500</b>
SPS <b>2,800</b>	SPL <b>3,460</b>	MDL2 <b>0,156</b>	CPW
BAS <b>1,650</b>	TPS	MW <b>0,156</b>	BD
BAL	FSP	GO <b>0,176</b>	BWT

<b>HEAVY ITEMS</b>			
Bow Thruster <b>No</b>	Generator <b>No</b>	Air Condition <b>No</b>	
Windlass <b>No</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>No</b>		
Anchor Weight	Heavy Items Adjustment	<b>0,0000</b>	
Anchor LCG	Total Gyradius Adjustment	<b>0,0452</b>	

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

<b>COMMENTS</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>01.05.2004</b>		SG <b>1,0050</b>
FFM <b>1,160</b>	FF <b>1,167</b>	SFFP <b>0,413</b>
FAM <b>0,970</b>	FA <b>0,973</b>	SAFP <b>8,737</b>
W1 <b>49,900</b>	PD1 <b>206,0</b>	WD <b>9,530</b>
W2 <b>49,900</b>	PD2 <b>208,0</b>	GSA <b>12,6</b>
W3 <b>49,900</b>	PD3 <b>206,0</b>	RSA <b>4298,7</b>
W4 <b>49,900</b>	PD4 <b>208,0</b>	PLM <b>2005,</b>
Maximum beam station from stem		<b>6,164</b>
RM Measured / Default		<b>80,4 / 75,3</b>
Limit of positive stability		<b>115,9°</b>
Stability Index		<b>114,1</b>
Freeboard at mast at 3,460		<b>1,050</b>

<b>PROPELLER</b>		
Installation <b>Strut Drive</b>	PRD <b>0,410</b>	
Type <b>Folding</b>	PBW	
Twin Screw <b>No</b>	PIPA <b>0,0017</b>	
ST1 <b>0,042</b>	ST3	ST5 <b>0,268</b>
ST2	ST4 <b>0,066</b>	EDL <b>2,535</b>

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

<b>CENTERBOARD</b>
N/A



**2009**  
IMS Measurement  
Certificate

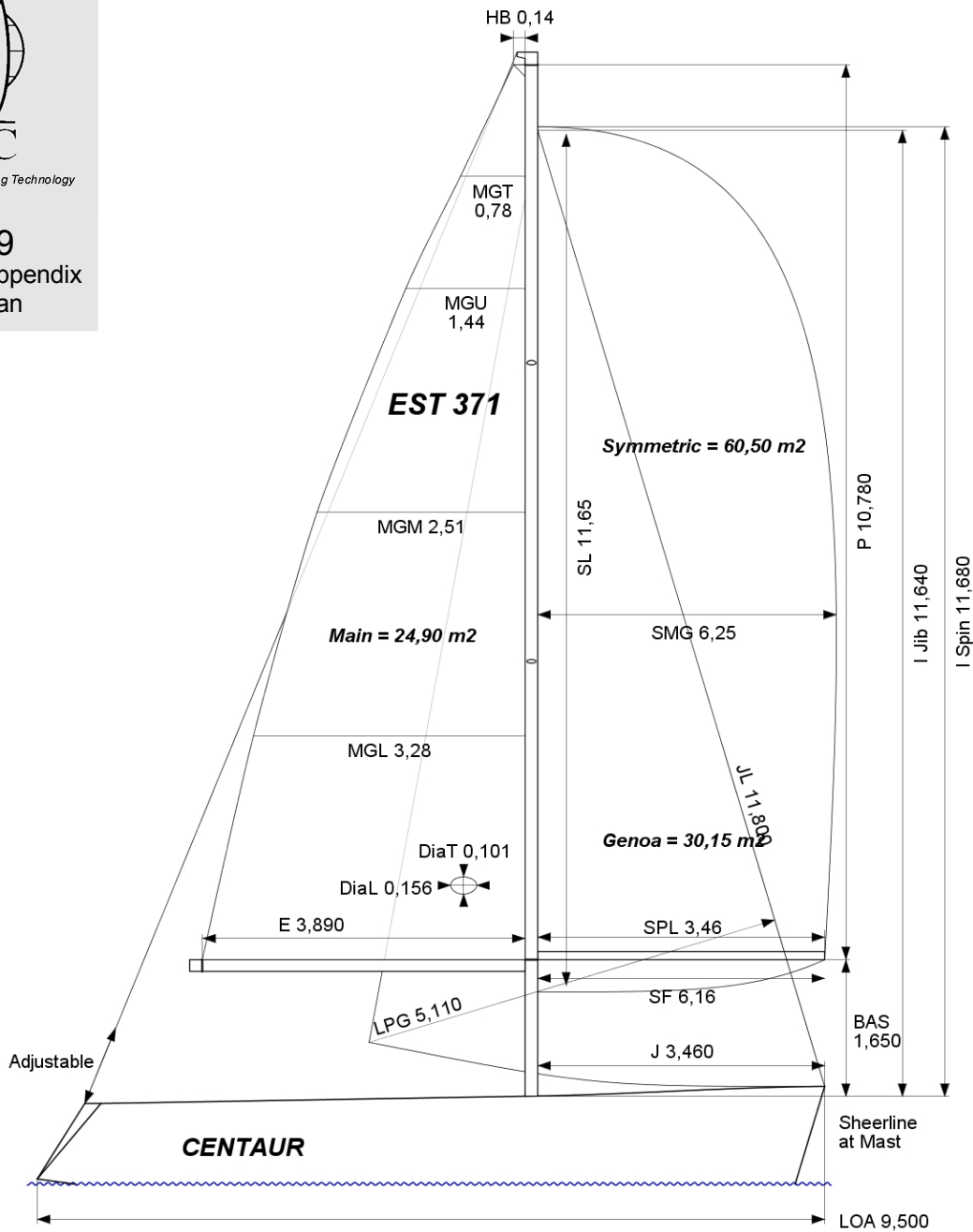
<b>Certificate</b>	
Number <b>EST371</b>	
ORC Ref <b>EST00000059</b>	
Issued On <b>2.05.2009</b>	
VPP Ver. <b>1.11</b>	
Valid until <b>31.12.2009</b>	

<b>SAILS (Maximum Areas)</b>									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,140	0,78	1,44	2,51	3,28	0,00	24,90	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG	Formula	
	0,00	0,64	1,28	2,56	3,83	11,80	5,11	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)	
Symmetric	SL	SMG	SF				Area	Formula	
	11,65	6,25	6,16				60,50	SL · (SF + 4·SMG) / 6	



World Leader in Rating Technology

**2009**  
Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC	0,140	0,78	1,44	2,51	3,28	0,00	24,90					* Copied from legacy *

**JIBS / GENOAS**

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC						5,11	11,80	148%	30,15					* Copied from legacy *

**SYMMETRIC SPINNAKERS**

Id	SL	SMG	SF	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC	11,65	6,25	6,16	60,50					* Copied from legacy *

**ASYMMETRIC SPINNAKERS**

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Dat	Manufacturer	Material	Comment
----	-----	-----	-----	-----	-----	------	------	----------	----------	--------------	----------	---------