

<b>BOAT</b>
Name <b>LADY BIRD</b>
Sail Nr <b>EST 299</b>

<b>GPH</b>
<b>576,5</b>

<b>HULL</b>
Length Overall <b>11,988 m</b>
Maximum Beam <b>3,875 m</b>
Displacement <b>6 417 kg</b>
Draft <b>2,351 m</b>
IMS Reg. Division <b>Cruiser/Racer</b>
Dynamic Allowance <b>0,282%</b>
Fwd Accommodation <b>Yes</b>
Hull Construction <b>Cored</b>
Carbon Rudder <b>No</b>
Trim Tab <b>No</b>
IMS L <b>11,497</b> VCGD <b>-0,081</b> VCGM <b>-0,103</b>
Sink <b>21,90 kg/mm</b> Wetted Area <b>30,25 m<sup>2</sup></b>



**2009**  
ORC International  
Certificate

<b>GENERAL</b>
Class <b>AKTON 395</b>
Designer <b>LUTRA DESIGN</b>
Builder <b>ACTON YACHTS Ltd</b>
Series <b>08.2001</b>
Age <b>08.2001</b>
Age Allowance <b>0,520%</b>
Offset File <b>est299.off - 27.05.2002 23:11:52</b>
Measurement by <b>A.TETSMANN - 18.06.2009</b>

<b>SCORING OPTIONS</b>		
	<b>OFFSHORE</b>	<b>INSHORE</b>
	<b>COASTAL / LONG DISTANCE</b>	<b>WINDWARD / LEEWARD</b>
Time On Distance	<b>576,5</b>	<b>643,3</b>
Time On Time	<b>1,0408</b>	<b>1,0493</b>
Performance Line	PLT <b>0,920</b> PLD <b>107,0</b>	PLT <b>1,103</b> PLD <b>307,5</b>
Triple Number	Low <b>1,0223</b> Medium <b>1,3204</b> High <b>1,4897</b>	Low <b>0,7760</b> Medium <b>1,0548</b> High <b>1,2307</b>

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

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>982,0</b>	<b>807,7</b>	<b>718,3</b>	<b>678,2</b>	<b>654,4</b>	<b>639,9</b>	<b>628,0</b>
52°	<b>636,2</b>	<b>531,1</b>	<b>485,2</b>	<b>465,2</b>	<b>454,5</b>	<b>448,6</b>	<b>443,7</b>
60°	<b>596,0</b>	<b>506,9</b>	<b>464,2</b>	<b>447,7</b>	<b>440,3</b>	<b>435,5</b>	<b>430,7</b>
75°	<b>563,3</b>	<b>489,1</b>	<b>447,1</b>	<b>433,0</b>	<b>421,8</b>	<b>414,9</b>	<b>406,2</b>
90°	<b>539,8</b>	<b>463,7</b>	<b>437,0</b>	<b>421,3</b>	<b>411,7</b>	<b>401,4</b>	<b>384,5</b>
110°	<b>547,5</b>	<b>473,4</b>	<b>439,0</b>	<b>417,0</b>	<b>398,6</b>	<b>382,4</b>	<b>359,3</b>
120°	<b>581,7</b>	<b>492,9</b>	<b>448,9</b>	<b>426,3</b>	<b>401,0</b>	<b>379,8</b>	<b>347,6</b>
135°	<b>677,7</b>	<b>546,6</b>	<b>482,5</b>	<b>445,6</b>	<b>424,7</b>	<b>400,8</b>	<b>350,4</b>
150°	<b>816,1</b>	<b>647,3</b>	<b>545,6</b>	<b>487,1</b>	<b>449,9</b>	<b>429,1</b>	<b>385,1</b>
Run VMG	<b>942,3</b>	<b>747,4</b>	<b>630,1</b>	<b>556,0</b>	<b>503,4</b>	<b>464,5</b>	<b>420,8</b>

<b>Certificate</b>
Number <b>EST299</b>
ORC Ref <b>EST00000421</b>
Issued On <b>24.06.2009</b>
VPP Ver. <b>1.11</b>
Valid until <b>31.12.2009</b>

<b>Crew Weight</b>
Declared <b>750 kg</b>
Default* <b>747 kg</b>

<b>Special Scoring</b>
ToD ToT
Double <b>581,5 1,0319</b>
Non Spinnaker <b>622,1 0,9645</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>980,8</b>	<b>789,7</b>	<b>685,2</b>	<b>624,7</b>	<b>585,6</b>	<b>558,5</b>	<b>530,4</b>
Circular Random	<b>793,4</b>	<b>641,0</b>	<b>559,4</b>	<b>511,9</b>	<b>482,2</b>	<b>462,2</b>	<b>435,5</b>
Ocean for PCS	<b>848,4</b>	<b>670,9</b>	<b>572,1</b>	<b>511,7</b>	<b>471,6</b>	<b>442,5</b>	<b>399,8</b>
Non Spinnaker	<b>878,4</b>	<b>700,0</b>	<b>602,2</b>	<b>544,2</b>	<b>507,7</b>	<b>483,6</b>	<b>454,3</b>

<b>Sails Limitations</b>
Genoa <b>0</b> Jibs <b>5</b> Spinnakers <b>4</b>
Spinnaker configuration <b>Asymmetric-Pole</b>

<b>Storm Sails Areas</b>
Heavy Weather Jib <b>36,91</b>
Storm Jib (JL=10,75) <b>13,67</b>
Storm Trysail <b>16,14</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>43,6°</b>	<b>42,9°</b>	<b>41,0°</b>	<b>39,2°</b>	<b>38,2°</b>	<b>37,6°</b>	<b>37,3°</b>
Beat VMG	<b>3,67</b>	<b>4,46</b>	<b>5,01</b>	<b>5,31</b>	<b>5,50</b>	<b>5,63</b>	<b>5,73</b>
52°	<b>5,66</b>	<b>6,78</b>	<b>7,42</b>	<b>7,74</b>	<b>7,92</b>	<b>8,02</b>	<b>8,11</b>
60°	<b>6,04</b>	<b>7,10</b>	<b>7,76</b>	<b>8,04</b>	<b>8,18</b>	<b>8,27</b>	<b>8,36</b>
75°	<b>6,39</b>	<b>7,36</b>	<b>8,05</b>	<b>8,31</b>	<b>8,54</b>	<b>8,68</b>	<b>8,86</b>
90°	<b>6,67</b>	<b>7,76</b>	<b>8,24</b>	<b>8,54</b>	<b>8,74</b>	<b>8,97</b>	<b>9,36</b>
110°	<b>6,58</b>	<b>7,61</b>	<b>8,20</b>	<b>8,63</b>	<b>9,03</b>	<b>9,41</b>	<b>10,02</b>
120°	<b>6,19</b>	<b>7,30</b>	<b>8,02</b>	<b>8,45</b>	<b>8,98</b>	<b>9,48</b>	<b>10,36</b>
135°	<b>5,31</b>	<b>6,59</b>	<b>7,46</b>	<b>8,08</b>	<b>8,48</b>	<b>8,98</b>	<b>10,28</b>
150°	<b>4,41</b>	<b>5,56</b>	<b>6,60</b>	<b>7,39</b>	<b>8,00</b>	<b>8,39</b>	<b>9,35</b>
Run VMG	<b>3,82</b>	<b>4,82</b>	<b>5,71</b>	<b>6,48</b>	<b>7,15</b>	<b>7,75</b>	<b>8,55</b>
Gybe Angles	<b>141,4°</b>	<b>145,2°</b>	<b>149,8°</b>	<b>159,1°</b>	<b>165,7°</b>	<b>171,1°</b>	<b>173,8°</b>

<b>Owner</b>
<b>ACTON YACHTS Ltd</b>
<b>Kalevi pst. 72</b>
<b>Pärnu, Estonia</b>
<b>Pärnu JK</b>
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

<b>BOAT</b>	
Name <b>LADY BIRD</b>	Sail Nr <b>EST 299</b>
File <b>Est0299.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>Yes</b>	Jumpers <b>None</b>		
Taper Hollows <b>No</b>	w/o Backstay <b>No</b>		
P <b>16,350</b>	E <b>5,640</b>	MDT1 <b>0,120</b>	TL <b>0,700</b>
IG <b>16,500</b>	J <b>4,730</b>	MDL1 <b>0,210</b>	MWT <b>217,00</b>
ISP <b>16,540</b>	SFJ <b>0,050</b>	MDT2 <b>0,120</b>	MCG <b>6,670</b>
SPS <b>3,600</b>	SPL <b>4,740</b>	MDL2 <b>0,190</b>	CPW <b>3,360</b>
BAS <b>1,750</b>	TPS <b>4,770</b>	MW <b>0,210</b>	BD <b>0,280</b>
BAL <b>0,152</b>	FSP <b>0,000</b>	GO <b>0,220</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>0,0432</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>25.05.2003</b>	SG <b>1,0020</b>	
FFM <b>1,380</b>	FF <b>1,388</b>	SFFP <b>0,604</b>
FAM <b>0,945</b>	FA <b>0,951</b>	SAFP <b>11,648</b>
W1 <b>85,100</b>	PD1 <b>205,0</b>	WD <b>11,000</b>
W2 <b>85,100</b>	PD2 <b>207,0</b>	GSA <b>12,6</b>
W3 <b>85,100</b>	PD3 <b>205,0</b>	RSA <b>4298,7</b>
W4 <b>85,100</b>	PD4 <b>206,0</b>	PLM <b>2005,</b>
Maximum beam station from stem	<b>7,629</b>	
RM Measured / Default	<b>159,2 / 170,6</b>	
Limit of positive stability	<b>121,9°</b>	
Stability Index	<b>122,1</b>	
Freeboard at mast at 4,780	<b>1,164</b>	

<b>PROPELLER</b>		
Installation <b>Strut Drive</b>	PRD <b>0,410</b>	
Type <b>Folding</b>	PBW <b>0,111</b>	
Twin Screw <b>No</b>	PIPA <b>0,0031</b>	
ST1 <b>0,050</b>	ST3 <b>0,178</b>	ST5 <b>0,270</b>
ST2 <b>0,175</b>	ST4 <b>0,097</b>	EDL <b>3,280</b>

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

<b>CENTERBOARD</b>
N/A



**2009**  
IMS Measurement  
Certificate

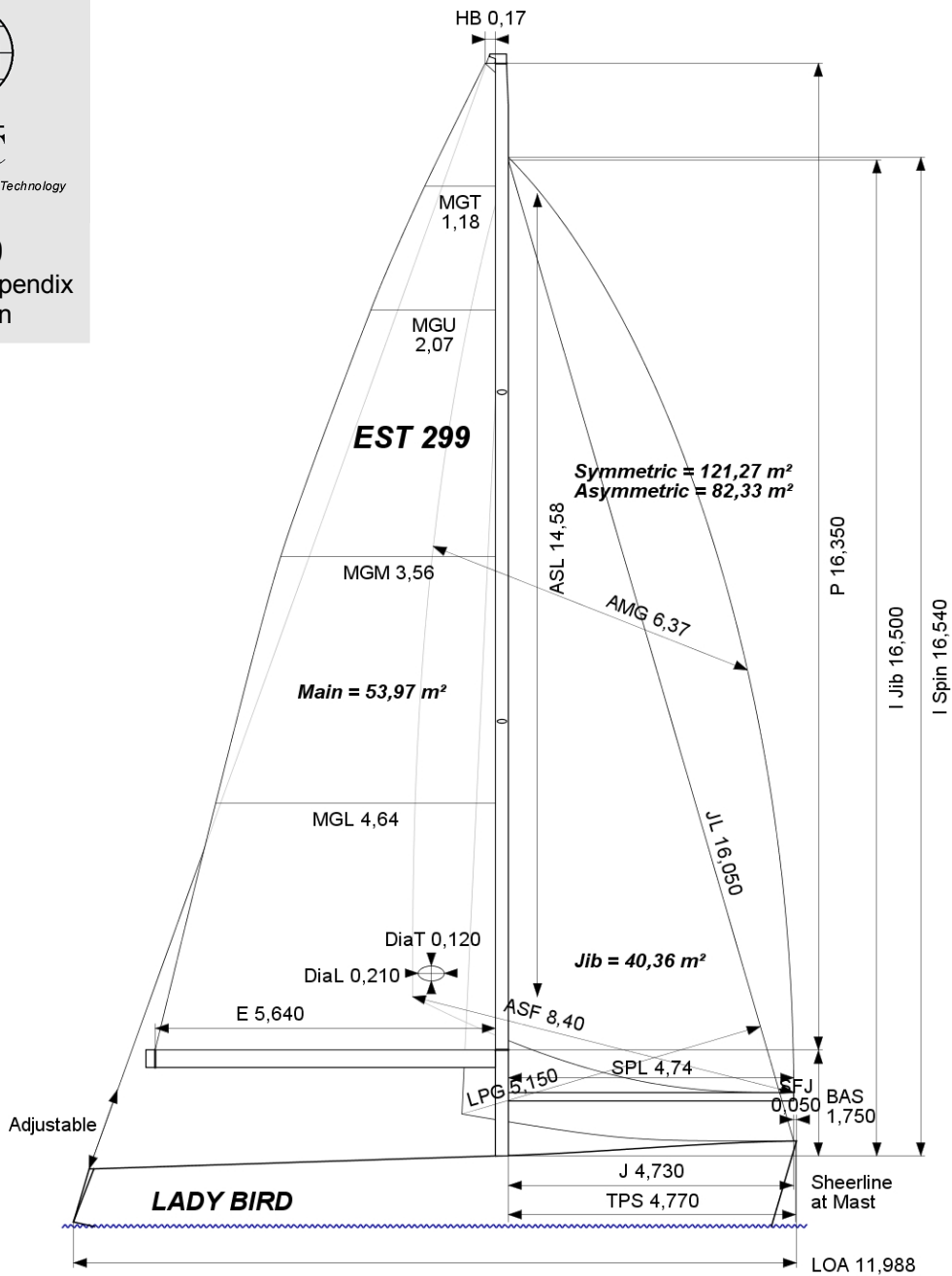
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<b>SAILS (Maximum Areas)</b>									
<b>Mainsail</b>	<b>HB</b>	<b>MGT</b>	<b>MGU</b>	<b>MGM</b>	<b>MGL</b>	<b>MSW</b>	<b>Area</b>	<b>Formula</b>	
	0,165	1,18	2,07	3,56	4,64	22,00	53,97	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
<b>Jib/Genoa</b>	<b>JH</b>	<b>JGT</b>	<b>JGU</b>	<b>JGM</b>	<b>JGL</b>	<b>JL</b>	<b>LPG</b>		
	0,07	0,63	1,26	2,46	3,72	16,05	5,15	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>				<b>Area (r)</b>		
	17,00	8,60	8,40				121,27	SL · (SF + 4·SMG) / 6	
<b>Asymmetric</b>	<b>SLU</b>	<b>SLE</b>	<b>ASL</b>	<b>AMG</b>	<b>ASF</b>				
	15,84	13,32	14,58	6,37	8,40				
							82,33	87,64	ASL · (ASF + 4·AMG) / 6



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,165	1,18	2,07	3,56	4,64	22,00	53,97				Unknown	

**JIBS / GENOAS**

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,08	0,69	1,33	2,46	3,65	4,91	16,05	104%	39,80				Unknown	
2	0,07	0,63	1,26	2,46	3,72	5,15	16,05	109%	40,36				Unknown	

**SYMMETRIC SPINNAKERS**

Id	SL	SMG	SF	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC	17,00	8,60	8,40	121,27					* Copied from legacy *

**ASYMMETRIC SPINNAKERS**

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	15,84	13,32	14,58	6,37	8,40	82,33	asym	VR	18.06.2009		Unknown	