

<b>BOAT</b> Name <b>Orca</b> Sail Nr <b>CRO 1177</b>	<b>GPH</b> <b>600.1</b>	<b>HULL</b> Length Overall <b>11.924m</b> Maximum Beam <b>3.770m</b> Displacement <b>7,476kg</b> Draft <b>2.433m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.157%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>First 40.7</b> Designer <b>Farr</b> Builder <b>Bennetau</b> Series <b>12/1997</b> Age <b>12/2002</b> Age Allowance <b>0.487%</b> Offset File <b>EFRST407.OFF - 25/10/2016 17:33:16</b> Measurement by - <b>28/03/2014</b>		IMSL <b>10.706m</b> VCGD <b>-0.121m</b> Sink <b>22.45kg/mm</b> RL <b>9.393m</b> VCGM <b>0.103m</b> WS <b>30.16m<sup>2</sup></b> LSM0 <b>10.642m</b> Displacement/Length ratio <b>6.2030</b>



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>583.0</b>			<b>649.7</b>		
Time on Time	<b>1.0292</b>			<b>1.0390</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>687.9</b>	<b>531.2</b>	<b>475.4</b>	<b>886.6</b>	<b>652.9</b>	<b>565.7</b>
Time on Time	<b>0.9812</b>	<b>1.2706</b>	<b>1.4200</b>	<b>0.7613</b>	<b>1.0338</b>	<b>1.1933</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1001.7</b>	<b>831.7</b>	<b>733.9</b>	<b>689.0</b>	<b>672.5</b>	<b>665.7</b>	<b>648.7</b>
52°	<b>660.7</b>	<b>558.1</b>	<b>504.2</b>	<b>483.9</b>	<b>476.9</b>	<b>473.5</b>	<b>467.1</b>
60°	<b>626.6</b>	<b>533.2</b>	<b>490.2</b>	<b>472.4</b>	<b>464.6</b>	<b>460.8</b>	<b>456.2</b>
75°	<b>600.6</b>	<b>516.0</b>	<b>480.4</b>	<b>462.3</b>	<b>450.1</b>	<b>442.2</b>	<b>435.8</b>
90°	<b>606.9</b>	<b>517.0</b>	<b>475.3</b>	<b>459.5</b>	<b>444.2</b>	<b>430.4</b>	<b>411.1</b>
110°	<b>613.3</b>	<b>508.2</b>	<b>467.0</b>	<b>444.7</b>	<b>428.4</b>	<b>418.0</b>	<b>400.3</b>
120°	<b>630.2</b>	<b>518.8</b>	<b>471.9</b>	<b>447.3</b>	<b>425.0</b>	<b>404.9</b>	<b>382.8</b>
135°	<b>695.9</b>	<b>565.7</b>	<b>494.2</b>	<b>462.8</b>	<b>440.4</b>	<b>417.8</b>	<b>375.7</b>
150°	<b>825.4</b>	<b>658.4</b>	<b>556.1</b>	<b>494.1</b>	<b>464.5</b>	<b>443.4</b>	<b>402.1</b>
Run VMG	<b>953.1</b>	<b>760.2</b>	<b>642.2</b>	<b>564.6</b>	<b>513.9</b>	<b>477.1</b>	<b>434.6</b>

**Certificate**  
Number **004/19**  
ORC Ref **CRO00090663**  
Issued On **29/05/2019**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**  
Default **752kg**  
Maximum **750kg**  
Minimum\* **563kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **633.0 0.9479**  
Non Spin OSN **614.3 0.9768**

Selected Courses							
Windward / Leeward	<b>977.4</b>	<b>796.0</b>	<b>688.0</b>	<b>626.8</b>	<b>593.2</b>	<b>571.4</b>	<b>541.6</b>
Circular Random	<b>825.4</b>	<b>666.8</b>	<b>582.1</b>	<b>533.3</b>	<b>503.6</b>	<b>484.1</b>	<b>458.6</b>
Coastal / Long Distance	<b>975.0</b>	<b>748.1</b>	<b>620.9</b>	<b>549.4</b>	<b>513.3</b>	<b>485.1</b>	<b>440.5</b>
Non Spinnaker	<b>884.9</b>	<b>708.9</b>	<b>613.2</b>	<b>557.1</b>	<b>522.5</b>	<b>499.9</b>	<b>471.2</b>

**Sails Limitations**  
Headsails **6** | Spinnakers **4**

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>42.2°</b>	<b>40.6°</b>	<b>40.0°</b>	<b>39.0°</b>	<b>38.2°</b>	<b>38.0°</b>	<b>38.0°</b>
Beat VMG	<b>3.59</b>	<b>4.33</b>	<b>4.91</b>	<b>5.23</b>	<b>5.35</b>	<b>5.41</b>	<b>5.55</b>
52°	<b>5.45</b>	<b>6.45</b>	<b>7.14</b>	<b>7.44</b>	<b>7.55</b>	<b>7.60</b>	<b>7.71</b>
60°	<b>5.74</b>	<b>6.75</b>	<b>7.34</b>	<b>7.62</b>	<b>7.75</b>	<b>7.81</b>	<b>7.89</b>
75°	<b>5.99</b>	<b>6.98</b>	<b>7.49</b>	<b>7.79</b>	<b>8.00</b>	<b>8.14</b>	<b>8.26</b>
90°	<b>5.93</b>	<b>6.96</b>	<b>7.57</b>	<b>7.83</b>	<b>8.10</b>	<b>8.36</b>	<b>8.76</b>
110°	<b>5.87</b>	<b>7.08</b>	<b>7.71</b>	<b>8.10</b>	<b>8.40</b>	<b>8.61</b>	<b>8.99</b>
120°	<b>5.71</b>	<b>6.94</b>	<b>7.63</b>	<b>8.05</b>	<b>8.47</b>	<b>8.89</b>	<b>9.41</b>
135°	<b>5.17</b>	<b>6.36</b>	<b>7.28</b>	<b>7.78</b>	<b>8.17</b>	<b>8.62</b>	<b>9.58</b>
150°	<b>4.36</b>	<b>5.47</b>	<b>6.47</b>	<b>7.29</b>	<b>7.75</b>	<b>8.12</b>	<b>8.95</b>
Run VMG	<b>3.78</b>	<b>4.74</b>	<b>5.61</b>	<b>6.38</b>	<b>7.00</b>	<b>7.55</b>	<b>8.28</b>
Gybe Angles	<b>141.2°</b>	<b>148.9°</b>	<b>149.7°</b>	<b>155.6°</b>	<b>170.3°</b>	<b>180.0°</b>	<b>180.0°</b>

**Class Division Length**  
CDL = **10.051**

**Storm Sails Areas**  
Heavy Weather Jib **34.09**  
Storm Jib (JL=10.33) **12.63**  
Storm Trysail **13.68**

**Owner**

<b>BOAT</b>	
Name <b>Orca</b>	Sail Nr <b>CRO 1177</b>
File <b>CRO1177</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>3</b>
Inner Stay <b>None Fitted</b>	Runners <b>0</b>
Carbon Mast <b>No</b>	Jumper Struts <b>None</b>
Taper Hollows <b>No</b>	Jib Furler <b>No</b>
Fiber Rigging <b>No</b>	Main Furler <b>No</b>
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>
Articulated Bowsprit <b>No</b>	
P <b>14.660</b>	E <b>5.330</b> MDT1 <b>0.120</b> MW <b>0.217</b>
IG <b>15.790</b>	J <b>4.440</b> MDL1 <b>0.217</b> GO <b>0.245</b>
ISP <b>15.890</b>	SFJ <b>0.000</b> MDT2 <b>0.120</b> BD <b>0.190</b>
BAS <b>1.710</b>	SPL <b>4.440</b> MDL2 <b>0.180</b> MWT <b>197.00</b>
FSP <b>0.070</b>	TPS <b></b> TL <b>0.690</b> MCG <b>5.550</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>28/03/2014</b>	SG <b>1.0260</b>	
FFM <b>1.322</b>	FF <b>1.317</b>	SFFP <b>0.292</b>
FAM <b>1.114</b>	FA <b>1.122</b>	SAFP <b>11.313</b>
W1 <b>102.0</b>	PD1 <b>578.6</b>	WD <b>11.800</b>
W2 <b>102.0</b>	PD2 <b>551.2</b>	GSA <b>1.0</b>
W3 <b>102.0</b>	PD3 <b>568.2</b>	RSA <b>1.0</b>
W4 <b>102.0</b>	PD4 <b>564.1</b>	PLM <b>9000.0</b>
LCF from stem on CL / on sheer	<b>6.474 / 6.708</b>	
Maximum beam station from stem	<b>7.502</b>	
RM Measured	<b>167.7kg-m</b>	
RM Default	<b>181.1kg-m</b>	
Limit of positive stability / Stab.Index	<b>114.0° / 117.4</b>	
Freeboard at mast at 4.440	<b>1.193</b>	



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

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0.410</b>	
Type <b>Folding 2 blades</b>	PBW <b>0.112</b>	
Twin Screw <b>No</b>	PIPA <b>0.0032</b>	
ST1 <b>0.045</b>	ST3 <b>0.170</b>	ST5 <b>0.290</b>
ST2 <b>0.170</b>	ST4 <b>0.100</b>	EDL <b>2.260</b>

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<b>COMMENTS</b>	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	



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<b>SAILS (Maximum Areas)</b>									
<b>Mainsail</b>	<b>MHB</b>	<b>MUW</b>	<b>MTW</b>	<b>MHW</b>	<b>MQW</b>	<b>Area</b>	<b>Area (r)</b>	<b>Formula</b>	
	0.600	1.33	2.13	3.42	4.48	47.56	48.66	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
<b>Symmetric</b>	<b>SLU</b>	<b>SLE</b>	<b>SL</b>	<b>SHW</b>	<b>SFL</b>				
	16.44	16.44	16.44	8.37	8.05	113.79		SL · (SFL + 4·SHW) / 6	
<b>Asymmetric</b>	Not Available								

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
<b>HHB</b>	<b>HUW</b>	<b>HTW</b>	<b>HHW</b>	<b>HQW</b>	<b>HLP</b>	<b>HLU</b>	<b>Area</b>	<b>Btn</b>	<b>Fly</b>	<b>Meas.Date</b>	<b>Material</b>	<b>Comment</b>
0.15	0.82	1.42	2.53	3.57	4.53	15.71	38.48	Y		15/05/2019	Twaron	
0.15	0.80	1.40	2.52	3.56	4.53	15.68	38.25			16/05/2019	Carbon	#1.5
0.01	0.48	0.91	1.90	3.01	4.19	15.17	30.25			16/05/2019	Carbon	#3

<b>MEASUREMENT INVENTORY</b>				
Measurer				
Date <b>29/05/2019</b>				
Comment <b>Marina Veruda</b>				
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>
<b>Id</b>	<b>Item</b>	<b>Maker</b>	<b>Model</b>	
1	Engine	Volvo	MD2040	
<b>Id</b>	<b>Item</b>	<b>Weight Description</b>		

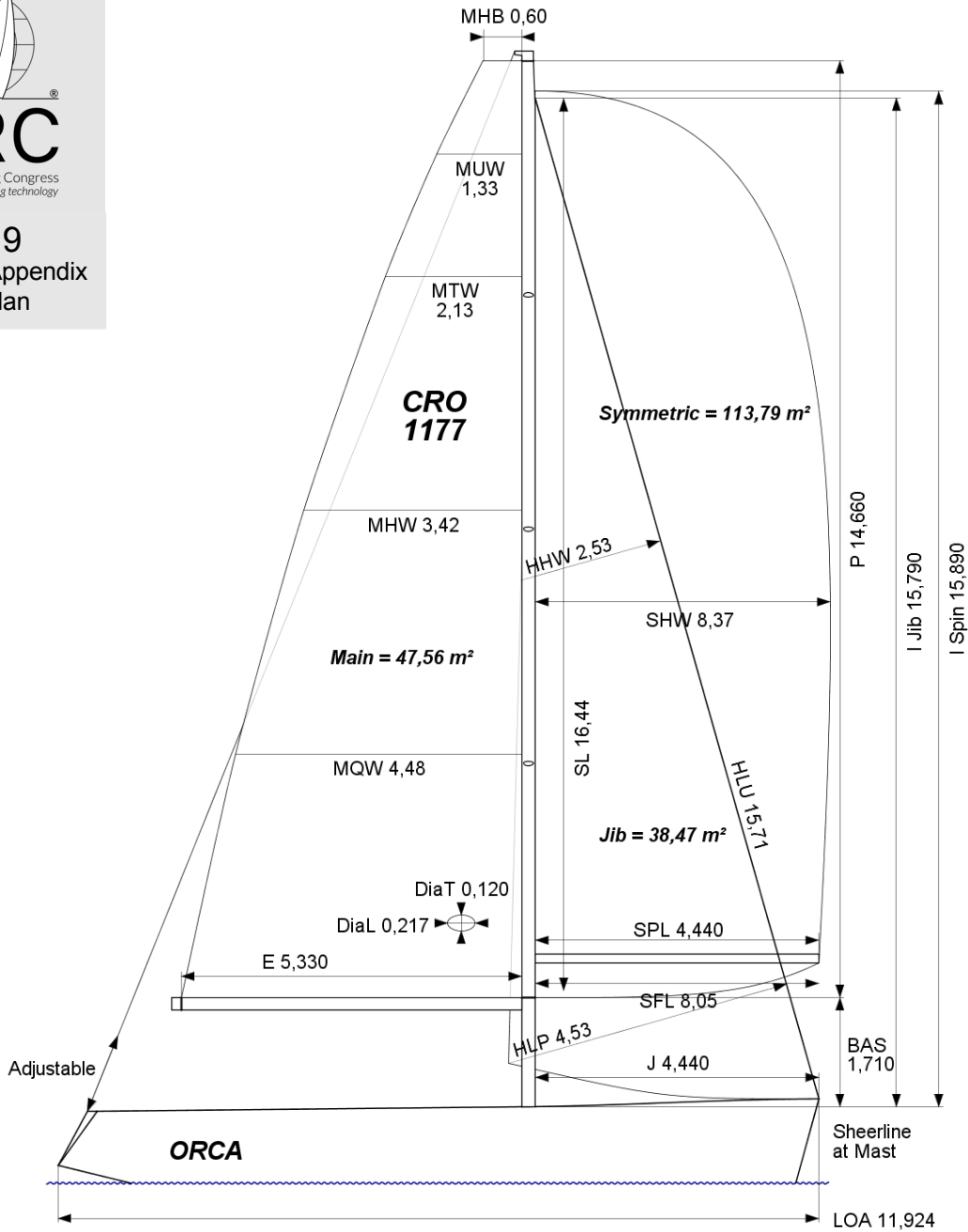
<b>MEASUREMENT INVENTORY</b>							
<b>Id</b>	<b>Item</b>	<b>Tank Use</b>	<b>Tank Type</b>	<b>Capcty</b>	<b>Dist.</b>	<b>VCG</b>	<b>Condtn Description</b>
1	Tank Water		Fix	150.0	5.50		0-0
2	Tank Water		Fix	150.0	5.50		0-0
3	Tank Fuel		Fix	135.0	9.30		00-0
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>			
1	Battery	0.0	7.30	Batteries 3pcs			



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**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2	0.60	1.33	2.13	3.42	4.48	47.57		13/06/2011	Olympic	Carbon	

**HEADSAILS (3)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
3	0.15	0.82	1.42	2.53	3.57	4.53	15.71	102%	38.48	Y			15/05/2019	Olympic Sails	Nylon	S2
2	0.15	0.80	1.40	2.52	3.56	4.53	15.68	102%	38.25				16/05/2019	Olympic	Carbon	#1.5
1	0.01	0.48	0.91	1.90	3.01	4.19	15.17	94%	30.25				16/05/2019	Olympic	Carbon	#3

**SYMMETRIC SPINNAKERS (4)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
4	16.44	16.44	16.44	8.37	8.05	113.80		16/05/2019	Olympic Sails	Nylon	S2
3	15.80	15.80	15.80	8.81	7.85	113.48		16/05/2019	Elvstrom	Unknown	Bijeli
2	15.50	15.50	15.50	7.88	7.82	101.63		26/03/2011	Olympic	Unknown	Plavi
1	15.31	15.31	15.31	7.80	7.82	99.57		26/03/2011	Olympic	Unknown	Bijeli

**ASYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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