


<b>BOAT</b> Name <b>SCAMP</b> Sail Nr <b>B45</b>	<b>GPH</b> <b>583.1</b>	<b>HULL</b> Length Overall <b>13.680m</b> Maximum Beam <b>4.202m</b> Displacement <b>11,371kg</b> Draft <b>2.364m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.224%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>Beneteau First 45</b> Designer <b>B Farr</b> Builder <b>Beneteau yachts</b> Series <b>01/2008</b> Age <b>01/2014</b> Age Allowance <b>0.292%</b> Offset File <b>FRS45SD.OFF - 10/05/2017 12:02:28</b> Measurement by <b>David Richards - 31/10/2015</b>		IMSL <b>12.333m</b> VCGD <b>-0.060m</b> Sink <b>30.15kg/mm</b> RL <b>9.734m</b> VCGM <b>-0.085m</b> WS <b>41.31m²</b> LSM0 <b>12.096m</b> Displacement/Length ratio <b>6.4250</b>



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**2017**  
ORC International  
Certificate

**Rating Office**  
Australian Sailing Ltd  
Locked Bag 806  
Milsions Point  
NSW 1565



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	<b>564.7</b>			<b>633.8</b>		
Time On Time	<b>1.0625</b>			<b>1.0650</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>686.5</b>	<b>512.2</b>	<b>446.3</b>	<b>895.0</b>	<b>641.4</b>	<b>538.5</b>
Time on Time	<b>0.9833</b>	<b>1.3179</b>	<b>1.5126</b>	<b>0.7542</b>	<b>1.0524</b>	<b>1.2535</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1044.8</b>	<b>853.6</b>	<b>747.1</b>	<b>676.8</b>	<b>644.3</b>	<b>628.8</b>	<b>615.1</b>
52°	<b>673.9</b>	<b>559.1</b>	<b>492.0</b>	<b>457.8</b>	<b>443.5</b>	<b>437.6</b>	<b>432.8</b>
60°	<b>630.0</b>	<b>526.0</b>	<b>469.5</b>	<b>443.6</b>	<b>430.7</b>	<b>424.3</b>	<b>419.0</b>
75°	<b>595.0</b>	<b>499.4</b>	<b>454.1</b>	<b>433.0</b>	<b>418.5</b>	<b>406.9</b>	<b>394.4</b>
90°	<b>596.5</b>	<b>491.2</b>	<b>442.9</b>	<b>425.2</b>	<b>416.3</b>	<b>402.4</b>	<b>376.6</b>
110°	<b>598.5</b>	<b>488.4</b>	<b>440.3</b>	<b>416.8</b>	<b>397.6</b>	<b>384.4</b>	<b>366.1</b>
120°	<b>618.4</b>	<b>503.1</b>	<b>446.9</b>	<b>421.6</b>	<b>400.6</b>	<b>379.5</b>	<b>350.6</b>
135°	<b>686.1</b>	<b>552.0</b>	<b>474.7</b>	<b>438.1</b>	<b>416.8</b>	<b>396.8</b>	<b>356.6</b>
150°	<b>814.3</b>	<b>641.8</b>	<b>540.7</b>	<b>476.1</b>	<b>440.2</b>	<b>419.6</b>	<b>382.3</b>
Run VMG	<b>940.3</b>	<b>741.1</b>	<b>624.3</b>	<b>546.5</b>	<b>495.4</b>	<b>455.8</b>	<b>412.4</b>

**Certificate**  
Number **4205**  
ORC Ref **AUS00000728**  
Issued On **27/06/2017**  
VPP Ver. **2017 1.00**  
Valid until **30/06/2018**

**Crew Weight**  
Declared **903kg**  
Default\* **903kg**  
Non Manual Pwr

**Special Scoring**  
ToD ToT  
Non Spin GPH **619.4 0.9687**  
Non Spin OSN **600.2 0.9997**

Selected Courses							
Windward / Leeward	<b>992.6</b>	<b>797.3</b>	<b>685.7</b>	<b>611.7</b>	<b>569.9</b>	<b>542.3</b>	<b>513.8</b>
Circular Random	<b>819.2</b>	<b>654.8</b>	<b>564.8</b>	<b>511.5</b>	<b>478.2</b>	<b>456.3</b>	<b>429.2</b>
Ocean for PCS	<b>1007.4</b>	<b>770.6</b>	<b>635.7</b>	<b>552.4</b>	<b>498.1</b>	<b>460.5</b>	<b>409.4</b>
Non Spinnaker	<b>885.2</b>	<b>701.4</b>	<b>599.2</b>	<b>537.5</b>	<b>498.5</b>	<b>472.9</b>	<b>442.1</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>44.2°</b>	<b>42.7°</b>	<b>42.5°</b>	<b>41.7°</b>	<b>40.3°</b>	<b>39.5°</b>	<b>39.5°</b>
Beat VMG	<b>3.45</b>	<b>4.22</b>	<b>4.82</b>	<b>5.32</b>	<b>5.59</b>	<b>5.73</b>	<b>5.85</b>
52°	<b>5.34</b>	<b>6.44</b>	<b>7.32</b>	<b>7.86</b>	<b>8.12</b>	<b>8.23</b>	<b>8.32</b>
60°	<b>5.71</b>	<b>6.84</b>	<b>7.67</b>	<b>8.12</b>	<b>8.36</b>	<b>8.48</b>	<b>8.59</b>
75°	<b>6.05</b>	<b>7.21</b>	<b>7.93</b>	<b>8.31</b>	<b>8.60</b>	<b>8.85</b>	<b>9.13</b>
90°	<b>6.04</b>	<b>7.33</b>	<b>8.13</b>	<b>8.47</b>	<b>8.65</b>	<b>8.95</b>	<b>9.56</b>
110°	<b>6.02</b>	<b>7.37</b>	<b>8.18</b>	<b>8.64</b>	<b>9.05</b>	<b>9.37</b>	<b>9.83</b>
120°	<b>5.82</b>	<b>7.16</b>	<b>8.06</b>	<b>8.54</b>	<b>8.99</b>	<b>9.48</b>	<b>10.27</b>
135°	<b>5.25</b>	<b>6.52</b>	<b>7.58</b>	<b>8.22</b>	<b>8.64</b>	<b>9.07</b>	<b>10.10</b>
150°	<b>4.42</b>	<b>5.61</b>	<b>6.66</b>	<b>7.56</b>	<b>8.18</b>	<b>8.58</b>	<b>9.42</b>
Run VMG	<b>3.83</b>	<b>4.86</b>	<b>5.77</b>	<b>6.59</b>	<b>7.27</b>	<b>7.90</b>	<b>8.73</b>
Gybe Angles	<b>144.1°</b>	<b>148.0°</b>	<b>150.3°</b>	<b>153.3°</b>	<b>160.7°</b>	<b>180.0°</b>	<b>180.0°</b>

**Class Division Length**  
CDL = **11.035**

**Storm Sails Areas**  
Heavy Weather Jib **46.28**  
Storm Jib (JL=12.04) **17.14**  
Storm Trysail **17.38**

**Owner**  
Michael Mollison  
38 Kuranda Street  
Balmoral  
4171 QLD



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

Signature

<b>BOAT</b>	
Name <b>SCAMP</b>	Sail Nr <b>B45</b>
File <b>4205</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>18.010</b>	E <b>5.515</b> MDT1 <b>0.138</b> MW <b>0.268</b>
IG <b>18.516</b>	J <b>5.515</b> MDL1 <b>0.268</b> GO <b>0.268</b>
ISP <b>19.944</b>	SFJ <b>0.000</b> MDT2 <b>0.135</b> BD <b>0.220</b>
BAS <b>1.856</b>	SPL <b>5.490</b> MDL2 <b>0.217</b> MWT
FSP <b>0.086</b>	TPS <b>5.575</b> TL <b>1.250</b> MCG

<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>31/10/2015</b>		SG <b>1.0250</b>	
FFM <b>1.586</b>	FF <b>1.580</b>	SFFP <b>0.325</b>	
FAM <b>1.197</b>	FA <b>1.207</b>	SAFP <b>13.147</b>	
W1 <b>45.0</b>	PD1 <b>62.0</b>	WD <b>13.240</b>	
W2 <b>90.0</b>	PD2 <b>124.0</b>	GSA <b>1.0</b>	
W3 <b>135.0</b>	PD3 <b>186.0</b>	RSA <b>244.0</b>	
W4 <b>180.0</b>	PD4 <b>250.0</b>	PLM <b>2006.0</b>	
LCF from stem on CL / on sheer		<b>7.490 / 7.763</b>	
Maximum beam station from stem		<b>8.964</b>	
RM Measured		<b>336.0kg-m</b>	
RM Default		<b>316.9kg-m</b>	
Limit of positive stability / Stab.Index		<b>123.6° / 129.8</b>	
Freeboard at mast at 5.515		<b>1.352</b>	

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD <b>0.460</b>		
Type <b>Folding 2 blades</b>	PBW <b>0.115</b>		
Twin Screw <b>No</b>	PIPA <b>0.0045</b>		
ST1 <b>0.050</b>	ST3 <b>0.180</b>	ST5 <b>0.490</b>	
ST2 <b>0.180</b>	ST4 <b>0.112</b>	EDL <b>4.030</b>	

<b>MOVEABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	



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<b>SAILS (Maximum Areas)</b>						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0.120	1.07	1.92	3.43	4.54	57.33 58.06 P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	151.30 SL · (SFL + 4·SHW) / 6
	18.50	18.50	18.50	9.98	9.15	
Asymmetric	SLU	SLE	SL	SHW	SFL	134.72 AS · (SFL + 4·SHW) / 6
	19.90	17.75	18.82	8.56	8.70	

<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>
0.12	0.75	1.42	2.78	4.15	5.55	17.88	49.92	Y		31/10/2015	Carbon	

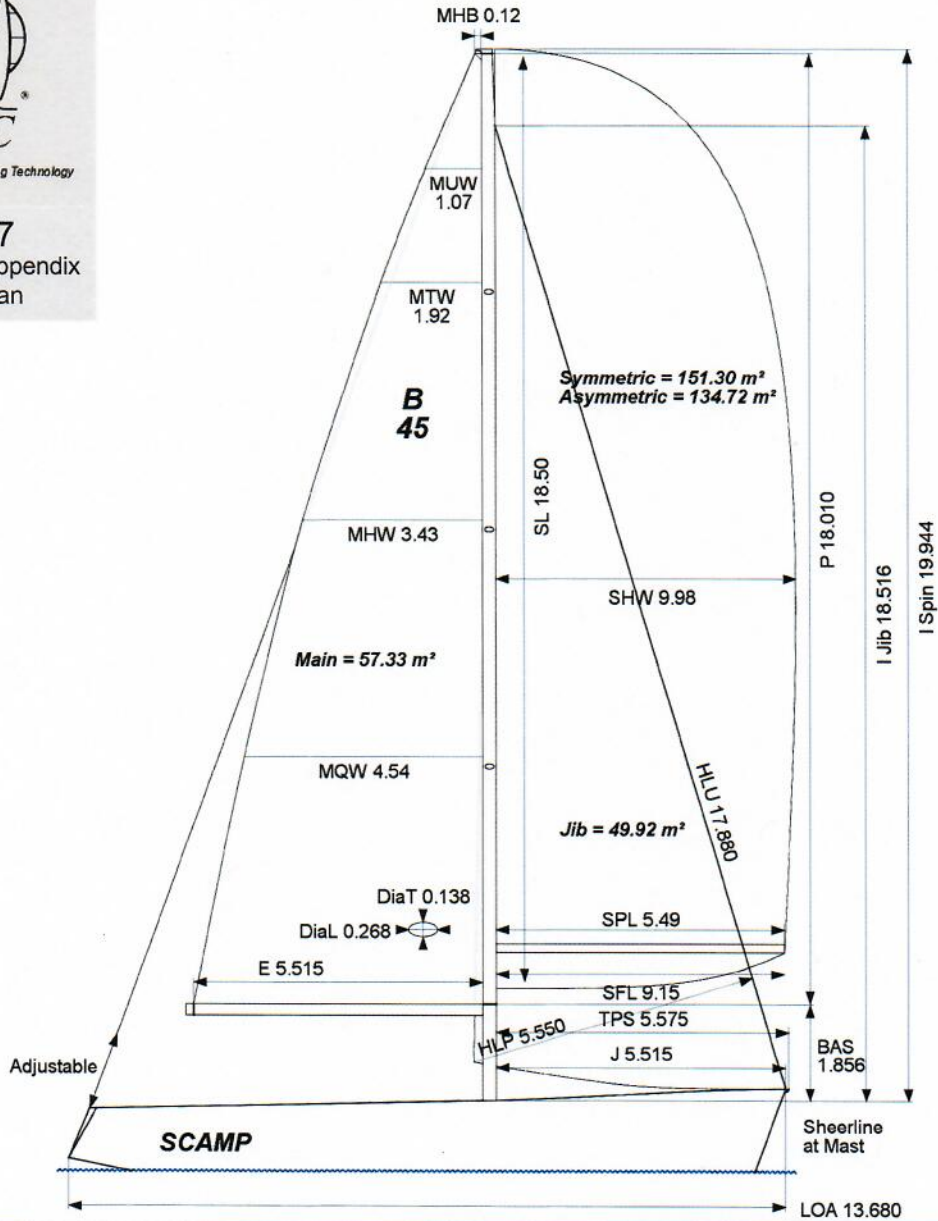
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>David Richards 4005</b>				
Date <b>31/10/2015</b>				
Comment <b>Little wind, clear&amp;hot</b>				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
M1	Engine	Yanmar	54 HP	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	

<b>MEASUREMENT INVENTORY</b>						
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG Condn Description</i>
F/	Tank	Fresh Water	Plastic	200.0	10.80	0-0 Fresh Water(2)
F1	Tank	Fuel	Plastic	200.0	10.80	400-0 Fuel
F/	Tank	Fresh Water	Plastic	350.0	2.50	0-0 Fresh Water (1)
H2	Tank	Holding	Plastic	50.0	4.90	0-0 Holding Tank (2)
H1	Tank	Holding	Plastic	50.0	8.80	0-0 Holding Tank (1)
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>		
B2	Battery	26.0	9.10	1 marine (Motor)		
B1	Battery	104.0	7.60	4 marine (House)		
H/	Misc	50.0	10.50	Hot Water		



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Sail Plan



SAILS INVENTORY

MANSAL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0.120	1.07	1.92	3.43	4.54	57.33	D Richards	31/10/2015	Hyde	Dacron	Comment

HEADSALS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J1	0.12	0.75	1.42	2.78	4.15	5.55	17.88	101%	49.92	Y		D	31/10/2015	Hyde	Carbon	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	18.50	18.50	18.50	9.98	9.15	151.30	D Richards	31/10/2015	Hyde	Nylon	Comment

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A1	19.90	17.75	18.82	8.56	8.70	134.72	asym	D Richards	31/10/2015	Hyde	Nylon	Comment