


<b>BOAT</b> Name <b>SCAMP</b> Sail Nr <b>B45</b>	<b>GPH</b> <b>579.7</b>	<b>HULL</b> Length Overall <b>13.680 m</b> Maximum Beam <b>4.190 m</b> Displacement <b>10,901 kg</b> Draft <b>2.375 m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.207%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension IMS L <b>12.249</b> VCGD <b>-0.123</b> Sink <b>29.47 kg/m m</b> RL <b>10.006</b> VCGM <b>-0.140</b> WS <b>40.80 m<sup>2</sup></b>
<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>0.228%</b> Offset File <b>FRS45SD.OFF - 10/11/2011 12:09:46</b> Measurement by <b>David Richards - 31/10/2015</b>		



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**2015**  
ORC International  
Certificate

<b>SCORING OPTIONS</b>						
	<b>OFFSHORE</b>			<b>INSHORE</b>		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	<b>563.0</b>			<b>631.4</b>		
Time On Time	<b>1.0658</b>			<b>1.0691</b>		
Performance Line	PLT	PLD		PLT	PLD	
	<b>0.857</b>	<b>73.3</b>		<b>0.779</b>	<b>122.0</b>	
Triple Number	Low	Medium	High	Low	Medium	High
	<b>0.9892</b>	<b>1.3257</b>	<b>1.5221</b>	<b>0.7512</b>	<b>1.0554</b>	<b>1.2683</b>

**Rating Office**  
Yachting Australia  
Locked Bag 806  
Milsons Point  
NSW 1565



**YACHTING AUSTRALIA**

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1036.3</b>	<b>844.9</b>	<b>736.4</b>	<b>667.6</b>	<b>636.0</b>	<b>619.0</b>	<b>606.3</b>
52°	<b>667.5</b>	<b>552.5</b>	<b>485.6</b>	<b>452.4</b>	<b>439.2</b>	<b>433.2</b>	<b>428.3</b>
60°	<b>623.4</b>	<b>519.8</b>	<b>463.8</b>	<b>438.8</b>	<b>426.3</b>	<b>420.1</b>	<b>414.7</b>
75°	<b>589.3</b>	<b>493.1</b>	<b>446.9</b>	<b>429.1</b>	<b>414.5</b>	<b>402.7</b>	<b>390.4</b>
90°	<b>566.2</b>	<b>469.3</b>	<b>433.9</b>	<b>420.9</b>	<b>413.1</b>	<b>400.4</b>	<b>376.2</b>
110°	<b>584.6</b>	<b>481.1</b>	<b>435.2</b>	<b>411.5</b>	<b>390.8</b>	<b>375.6</b>	<b>361.2</b>
120°	<b>607.3</b>	<b>492.8</b>	<b>443.5</b>	<b>421.5</b>	<b>400.7</b>	<b>379.4</b>	<b>350.2</b>
135°	<b>689.8</b>	<b>556.8</b>	<b>478.9</b>	<b>440.8</b>	<b>419.1</b>	<b>399.4</b>	<b>359.3</b>
150°	<b>829.6</b>	<b>653.8</b>	<b>549.8</b>	<b>481.2</b>	<b>443.2</b>	<b>421.5</b>	<b>383.2</b>
Run VMG	<b>958.0</b>	<b>755.0</b>	<b>634.7</b>	<b>552.5</b>	<b>492.6</b>	<b>451.9</b>	<b>408.8</b>

**Certificate**  
Number **4205**  
ORC Ref **AUS00050371**  
Issued On **10/11/2015**  
VPP Ver. **2015 1.01**  
Valid until **30/06/2016**

<b>Selected Courses</b>							
Windward / Leeward	<b>997.2</b>	<b>799.9</b>	<b>685.5</b>	<b>610.0</b>	<b>564.3</b>	<b>535.4</b>	<b>507.6</b>
Circular Random	<b>814.5</b>	<b>651.0</b>	<b>561.5</b>	<b>508.5</b>	<b>475.3</b>	<b>453.5</b>	<b>426.7</b>
Ocean for PCS	<b>869.8</b>	<b>680.8</b>	<b>574.3</b>	<b>508.8</b>	<b>465.9</b>	<b>435.7</b>	<b>393.5</b>
Non Spinnaker	<b>886.5</b>	<b>701.4</b>	<b>598.2</b>	<b>536.0</b>	<b>496.6</b>	<b>470.9</b>	<b>439.9</b>

**Crew Weight**  
Declared **895 kg**  
Default\* **895 kg**  
Non Manual Pwr

<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>44.3°</b>	<b>42.8°</b>	<b>42.4°</b>	<b>41.6°</b>	<b>40.6°</b>	<b>39.7°</b>	<b>39.3°</b>
Beat VMG	<b>3.47</b>	<b>4.26</b>	<b>4.89</b>	<b>5.39</b>	<b>5.66</b>	<b>5.82</b>	<b>5.94</b>
52°	<b>5.39</b>	<b>6.52</b>	<b>7.41</b>	<b>7.96</b>	<b>8.20</b>	<b>8.31</b>	<b>8.41</b>
60°	<b>5.77</b>	<b>6.93</b>	<b>7.76</b>	<b>8.20</b>	<b>8.44</b>	<b>8.57</b>	<b>8.68</b>
75°	<b>6.11</b>	<b>7.30</b>	<b>8.06</b>	<b>8.39</b>	<b>8.68</b>	<b>8.94</b>	<b>9.22</b>
90°	<b>6.36</b>	<b>7.67</b>	<b>8.30</b>	<b>8.55</b>	<b>8.71</b>	<b>8.99</b>	<b>9.57</b>
110°	<b>6.16</b>	<b>7.48</b>	<b>8.27</b>	<b>8.75</b>	<b>9.21</b>	<b>9.58</b>	<b>9.97</b>
120°	<b>5.93</b>	<b>7.31</b>	<b>8.12</b>	<b>8.54</b>	<b>8.99</b>	<b>9.49</b>	<b>10.28</b>
135°	<b>5.22</b>	<b>6.47</b>	<b>7.52</b>	<b>8.17</b>	<b>8.59</b>	<b>9.01</b>	<b>10.02</b>
150°	<b>4.34</b>	<b>5.51</b>	<b>6.55</b>	<b>7.48</b>	<b>8.12</b>	<b>8.54</b>	<b>9.40</b>
Run VMG	<b>3.76</b>	<b>4.77</b>	<b>5.67</b>	<b>6.52</b>	<b>7.31</b>	<b>7.97</b>	<b>8.81</b>
Gybe Angles	<b>139.7°</b>	<b>147.5°</b>	<b>151.2°</b>	<b>155.6°</b>	<b>170.3°</b>	<b>176.6°</b>	<b>178.7°</b>

**Special Scoring**  
ToD ToT  
Non Spin GPH **618.7 0.9698**  
Non Spin OSN **598.6 1.0023**  
N/S Perf. Line **36.5 0.746**

**Sails Limitations**

Headsails	Spinnakers
<b>7</b>	<b>4</b>

**Class Division Length**  
CDL = **11.129**

**Storm Sails Areas**  
Heavy Weather Jib **46.28**  
Storm Jib (JL=12.04) **17.14**  
Storm Triesail **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.dxt</b>	Data in <b>meters/kilograms</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>0.320</b>			
FAM <b>1.197</b>	FA <b>1.208</b>	SAFP <b>13.128</b>			
W1 <b>45.000</b>	PD1 <b>62.0</b>	WD <b>13.240</b>			
W2 <b>90.000</b>	PD2 <b>124.0</b>	GSA <b>1.0</b>			
W3 <b>135.00</b>	PD3 <b>186.0</b>	RSA <b>244.0</b>			
W4 <b>180.00</b>	PD4 <b>250.0</b>	PLM <b>2006.0</b>			
LCF from stem on CL / on sheer				<b>7.451 / 7.717</b>	
Maximum beam station from stem				<b>8.883</b>	
RM Measured / Default				<b>336.0 / 307.5</b>	
Limit of positive stability / Stab.Index				<b>126.5° / 132.2</b>	
Freeboard at mast at 5.515				<b>1.365</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		



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Measurements Datasheet

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

<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>COMMENTS</b>	

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

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	HB	MGT	MGU	MGM	MGL	Area	Area (r)	Formula	
	0.120	1.07	1.92	3.43	4.54	57.33	58.06	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Symmetric	SL	SMG	SF						
	18.50	9.98	9.15			151.30		SL · (SF + 4·SMG) / 6	
Asymmetric	SLU	SLE	ASL	AMG	ASF				
	19.90	17.75	18.82	8.56	8.70	134.72		ASL · (ASF + 4·AMG) / 6	

<b>HEADSAILS</b>												
Area = 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)												
<b>JH</b>	<b>JGT</b>	<b>JGU</b>	<b>JGM</b>	<b>JGL</b>	<b>LPG</b>	<b>JL</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	

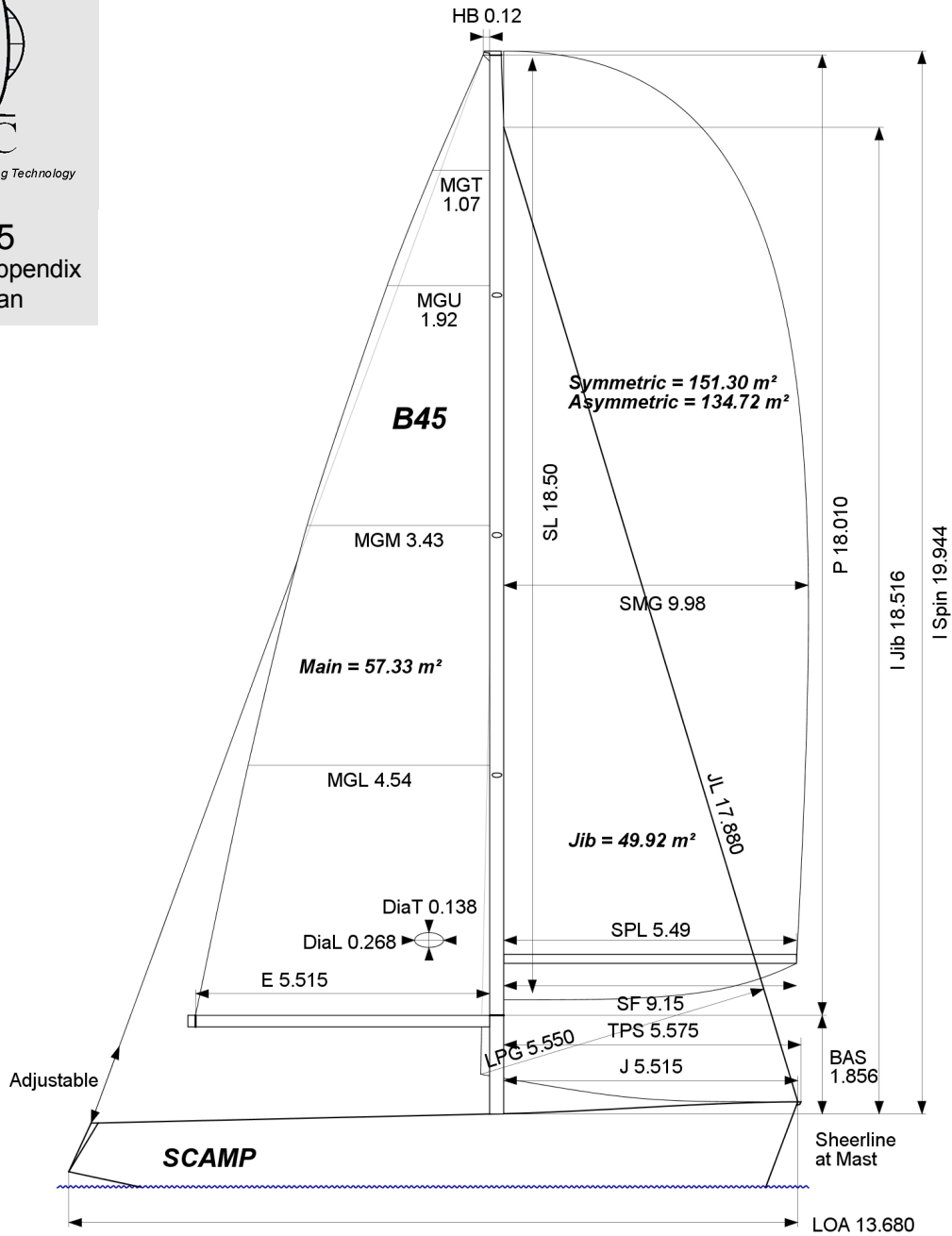
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>David Richards 4005</b>				
Date <b>31/10/2015</b>				
Comment <b>Little wind, clear&amp;hot</b>				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
M1	Engine	Yanmar	54 HP	
Id	Item	Weight	Description	

<b>MEASUREMENT INVENTORY</b>									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condn	Description	
F/	Tank	Fresh Water	Plastic	200.0	10.80		0-0	Fresh Water(2)	
F1	Tank	Fuel	Plastic	200.0	10.80		100-0	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)	
Id	Item	Weight	Distance	VCG	Description				
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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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

Id	HB	MGT	MGU	MGM	MGL	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	

**HEADSAILS**

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	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**

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	18.50	9.98	9.15	151.30	D Richards	31/10/2015	Hyde	Nylon	

**ASYMMETRIC SPINNAKERS**

Id	SLU	SLE	ASL	AMG	ASF	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	