

<b>BOAT</b> Name <b>CQS</b> Sail Nr <b>AUS11111</b>	<b>GPH</b> <b>340.4</b>	<b>HULL</b> Length Overall <b>29.800m</b> Maximum Beam <b>4.698m</b> Displacement <b>26,650kg</b> Draft <b>6.007m</b> IMS Reg. Division <b>Performance</b> Dynamic Allowance <b>0.058%</b> Fwd Accommodation <b>No</b> Hull Construction <b>Carbon</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class <b>SUPER MAXI</b> Designer <b>Simons Voodd</b> Builder <b>BOAT SPEED</b> Series <b>04/2004</b> Age <b>12/2016</b> Age Allowance <b>0.390%</b> Offset File <b>CQS freeboards.off - 16/12/2016</b> Measurement by <b>Anderson -</b>		IMSL <b>27.770m</b> VCGD <b>-0.533m</b> Sink <b>76.12kg/mm</b> RL <b>25.245m</b> VCGM <b>-0.621m</b> WS <b>95.89m<sup>2</sup></b> LSMO <b>26.935m</b> Displacement/Length ratio <b>1.3638</b>



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	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	<b>334.9</b>			<b>384.2</b>		
Time On Time	<b>1.7915</b>			<b>1.7569</b>		
Performance Line	<b>1.081</b>	<b>-17.1</b>		<b>1.413</b>	<b>166.9</b>	
Triple Number	Low <b>1.7194</b>	Medium <b>2.2234</b>	High <b>2.6502</b>	Low <b>1.2893</b>	Medium <b>1.7179</b>	High <b>2.1016</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>633.3</b>	<b>525.3</b>	<b>456.8</b>	<b>420.3</b>	<b>394.9</b>	<b>381.5</b>	<b>369.3</b>
52°	<b>402.2</b>	<b>332.2</b>	<b>301.6</b>	<b>285.5</b>	<b>275.3</b>	<b>267.4</b>	<b>256.5</b>
60°	<b>368.1</b>	<b>306.4</b>	<b>284.9</b>	<b>272.5</b>	<b>259.3</b>	<b>248.1</b>	<b>236.3</b>
75°	<b>330.9</b>	<b>284.2</b>	<b>265.0</b>	<b>251.0</b>	<b>240.6</b>	<b>226.1</b>	<b>211.6</b>
90°	<b>310.9</b>	<b>277.4</b>	<b>255.0</b>	<b>235.4</b>	<b>225.5</b>	<b>216.4</b>	<b>193.4</b>
110°	<b>310.6</b>	<b>270.8</b>	<b>246.6</b>	<b>213.4</b>	<b>212.6</b>	<b>200.5</b>	<b>184.3</b>
120°	<b>320.6</b>	<b>274.7</b>	<b>249.8</b>	<b>231.2</b>	<b>215.5</b>	<b>202.7</b>	<b>177.7</b>
135°	<b>368.3</b>	<b>295.0</b>	<b>272.8</b>	<b>250.0</b>	<b>221.9</b>	<b>201.6</b>	<b>178.6</b>
150°	<b>451.2</b>	<b>359.0</b>	<b>326.6</b>	<b>295.4</b>	<b>266.8</b>	<b>236.0</b>	<b>191.5</b>
Run VMG	<b>521.0</b>	<b>414.5</b>	<b>377.1</b>	<b>341.1</b>	<b>308.0</b>	<b>272.5</b>	<b>221.1</b>

Selected Courses							
Windward / Leeward	<b>577.1</b>	<b>469.9</b>	<b>417.0</b>	<b>380.7</b>	<b>351.5</b>	<b>327.0</b>	<b>295.2</b>
Circular Random	<b>472.0</b>	<b>381.1</b>	<b>331.0</b>	<b>299.7</b>	<b>277.9</b>	<b>261.3</b>	<b>237.2</b>
Ocean for PCS	<b>592.1</b>	<b>456.0</b>	<b>377.1</b>	<b>326.0</b>	<b>289.6</b>	<b>261.7</b>	<b>220.4</b>
Non Spinnaker	<b>524.7</b>	<b>418.3</b>	<b>358.6</b>	<b>321.4</b>	<b>296.2</b>	<b>277.8</b>	<b>251.2</b>

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>45.4°</b>	<b>46.2°</b>	<b>43.5°</b>	<b>41.1°</b>	<b>39.3°</b>	<b>38.0°</b>	<b>37.1°</b>
Beat VMG	<b>5.68</b>	<b>6.85</b>	<b>7.88</b>	<b>8.57</b>	<b>9.12</b>	<b>9.44</b>	<b>9.75</b>
52°	<b>8.95</b>	<b>10.84</b>	<b>11.94</b>	<b>12.61</b>	<b>13.08</b>	<b>13.46</b>	<b>14.03</b>
60°	<b>9.78</b>	<b>11.75</b>	<b>12.64</b>	<b>13.21</b>	<b>13.88</b>	<b>14.51</b>	<b>15.23</b>
75°	<b>10.88</b>	<b>12.67</b>	<b>13.58</b>	<b>14.34</b>	<b>14.96</b>	<b>15.92</b>	<b>17.01</b>
90°	<b>11.58</b>	<b>12.98</b>	<b>14.12</b>	<b>15.29</b>	<b>15.97</b>	<b>16.63</b>	<b>18.61</b>
110°	<b>11.59</b>	<b>13.29</b>	<b>14.60</b>	<b>16.87</b>	<b>16.94</b>	<b>17.96</b>	<b>19.53</b>
120°	<b>11.23</b>	<b>13.10</b>	<b>14.41</b>	<b>15.57</b>	<b>16.71</b>	<b>17.76</b>	<b>20.26</b>
135°	<b>9.77</b>	<b>12.21</b>	<b>13.20</b>	<b>14.40</b>	<b>16.22</b>	<b>17.86</b>	<b>20.16</b>
150°	<b>7.98</b>	<b>10.03</b>	<b>11.02</b>	<b>12.19</b>	<b>13.50</b>	<b>15.26</b>	<b>18.80</b>
Run VMG	<b>6.91</b>	<b>8.68</b>	<b>9.55</b>	<b>10.55</b>	<b>11.69</b>	<b>13.21</b>	<b>16.28</b>
Gybe Angles	<b>135.4°</b>	<b>137.5°</b>	<b>140.5°</b>	<b>144.7°</b>	<b>143.5°</b>	<b>139.8°</b>	<b>145.2°</b>

**Certificate**

Number **284500**  
ORC Ref **AUS00000606**  
Issued On **16/12/2016**  
VPP Ver. **2016 1.01**  
Valid until **30/06/2017**

**Crew Weight**

Declared **2,828kg**  
Default\* **2,828kg**  
Non Manual Pwr **Yes**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>344.4</b>	<b>1.7424</b>
Double H.OSN	<b>337.7</b>	<b>1.7768</b>
Non Spin GPH	<b>369.9</b>	<b>1.6221</b>
Non Spin OSN	<b>365.6</b>	<b>1.6410</b>
N/S Perf. Line	<b>-50.4</b>	<b>0.900</b>

**Sails Limitations**

Headsails	Spinnakers
<b>8</b>	<b>0</b>

**Class Division Length**

CDL = **26.510**

**Storm Sails Areas**

Heavy Weather Jib **129.3**  
Storm Jib (JL=20.12) **47.90**  
Storm Trysail **68.72**

**Owner**

<b>BOAT</b>	
Name <b>CQS</b>	Sail Nr <b>AUS1111</b>
File <b>2845.dxt</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>					
Inclining Test <b>Current Inclining</b>					
Flotation date <b>10/12/2016</b>				SG <b>1.0250</b>	
FFM <b>1.790</b>	FF <b>1.790</b>	SFFP <b>3.600</b>			
FAM <b>1.344</b>	FA <b>1.347</b>	SAFP <b>29.683</b>			
W1 <b>120.0</b>	PD1 <b>51.0</b>	WD <b>17.100</b>			
W2 <b>240.0</b>	PD2 <b>102.0</b>	GSA <b>19.4</b>			
W3 <b>360.0</b>	PD3 <b>154.0</b>	RSA <b>6400.0</b>			
W4 <b>480.0</b>	PD4 <b>205.0</b>	PLM <b>2040.0</b>			
LCF from stem on CL / on sheer				<b>16.520 / 16.726</b>	
Maximum beam station from stem				<b>19.203</b>	
RM Measured				<b>1423.7kg·m</b>	
RM Default				<b>1383.1kg·m</b>	
Limit of positive stability / Stab.Index				<b>103.4° / 118.4</b>	
Freeboard at mast at 13.890				<b>1.598</b>	

<b>RIG</b>					
Forestay Tension <b>Aft</b>	Spreaders <b>5</b>				
Inner Stay <b>Adjustable</b>	Runners <b>3</b>				
Carbon Mast <b>Yes</b>	Jumper Struts <b>None</b>				
Taper Hollows <b>No</b>	Jib Furler <b>No</b>				
Fiber Rigging <b>Yes</b>	Main Furler <b>No</b>				
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>				
Articulated Bowsprit <b>No</b>					
P <b>33.250</b>	E <b>11.810</b>	MDT1 <b>0.218</b>	MW <b>0.415</b>		
IG <b>30.830</b>	J <b>12.740</b>	MDL1 <b>0.415</b>	GO <b>0.465</b>		
ISP <b>35.465</b>	SFJ <b>1.150</b>	MDT2 <b>0.172</b>	BD <b>0.550</b>		
BAS <b>2.070</b>	SPL	MDL2 <b>0.298</b>	MWT		
FSP <b>0.000</b>	TPS <b>17.940</b>	TL <b>4.800</b>	MCG		



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**2016**

**IMS Measurement Certificate**

**Certificate**

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 Issued On **16/12/2016**  
 VPP Ver. **2016 1.01**  
 Valid until **30/06/2017**

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

<b>PROPELLER</b>	
Type <b>No Propeller</b>	

**COMMENTS**

Modified by Bakewell-White  
 Southern Ocean Boats

<b>MOVEABLE BALLAST</b>	
Keel Angle <b>55.0</b>	
List Angle <b>35.2</b>	

<b>DYNAMIC STABILITY SYSTEM</b>			
Wing Span <b>3.550</b>	Maximum Thickness <b>0.096</b>		
Wing Angle <b>90.0</b>	Root Chord Distance <b>3.330</b>		
Chord Length <b>0.890</b>			



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<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	3.920	4.62	6.03	8.17	0.00	265.38	272.47	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	

**Symmetric**  
 Not Available

**Asymmetric**  
 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>
0.09	4.08	8.16	16.20		30.46	39.40	613.97	Y		28/11/2016	Carbon	
0.09	1.77	3.24	6.04		11.28	33.60	196.63	Y		28/11/2016	Carbon	J2

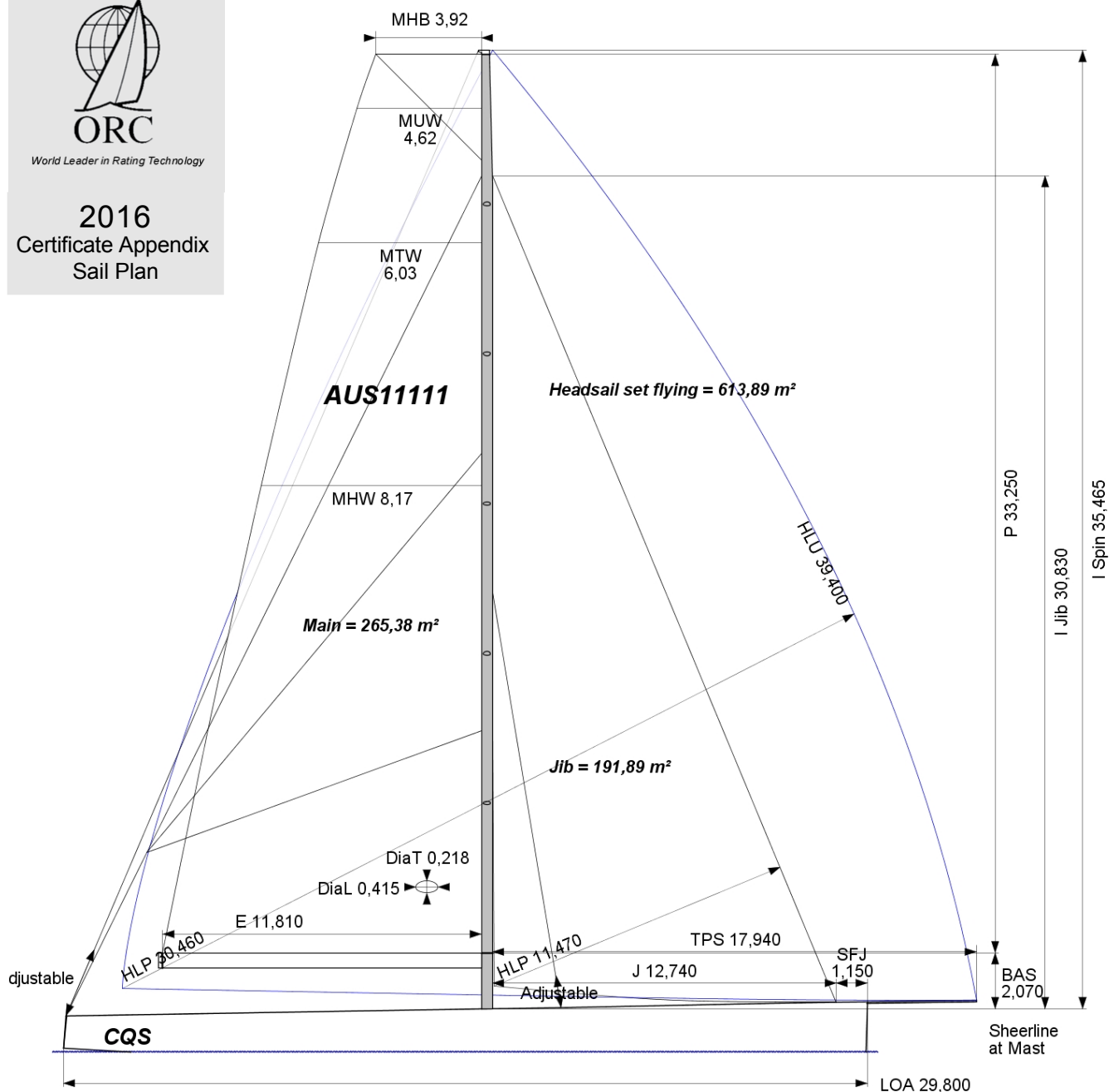
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>Anderson 2015</b>				
Date <b>10/12/2016</b>				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	HYUNDAI	RP200P	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

<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 Condtn Description</i>
2	Tank Fuel		Plastic	190.0	19.69	52.5
1	Tank Fuel		Plastic	190.0	19.69	52.5
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>		
2	Battery	30.0	20.39	1 Sealed 12 v		
1	Battery	120.0	20.39	2 x 300AH Lithium Batteries		



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	3.920	4.62	6.03	8.17		265.38	G.Robbins	28/11/2016	EVOLUTION	Carbon	

**HEADSAILS**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.09	4.08	8.16	16.20		30.46	39.40	239%	613.97		Y	G.Robbins	28/11/2016	EVOLUTION	Carbon	
2	0.09	1.77	3.24	6.04		11.28	33.60	89%	196.63		Y	G.	28/11/2016	EVOLUTION	Carbon	J2

**SYMMETRIC SPINNAKERS**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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**ASYMMETRIC SPINNAKERS**

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