

<b>BOAT</b> Name <b>IMPETUOUS</b> Sail Nr <b>USA 4206</b>	<b>GPH</b> <b>540.1</b>	<b>HULL</b> Length Overall <b>12.801m</b> Maximum Beam <b>3.900m</b> Displacement <b>7,685kg</b> Draft <b>2.723m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.000%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Cored</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class <b>SWAN 42</b> Designer <b>FRERS</b> Builder <b>SWAN</b> Series <b>05/2007</b> Age <b>05/2007</b> Age Allowance <b>0.390%</b> Offset File <b>US6321A.OFF - 16/07/2018 21:20:46</b> Measurement by - <b>20/10/2007</b>		IMSL <b>11.899m</b> VCGD <b>-0.335m</b> Sink <b>24.48kg/mm</b> RL <b>11.398m</b> VCGM <b>-0.337m</b> WS <b>33.20m<sup>2</sup></b> LSM0 <b>11.591m</b> Displacement/Length ratio <b>4.9349</b>



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<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>525.7</b>			<b>589.9</b>		
Time on Time	<b>1.1414</b>			<b>1.1443</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>608.7</b>	<b>481.2</b>	<b>432.3</b>	<b>783.8</b>	<b>590.6</b>	<b>523.5</b>
Time on Time	<b>1.1090</b>	<b>1.4027</b>	<b>1.5613</b>	<b>0.8612</b>	<b>1.1430</b>	<b>1.2895</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>891.9</b>	<b>733.9</b>	<b>655.3</b>	<b>625.4</b>	<b>611.7</b>	<b>603.1</b>	<b>587.7</b>
52°	<b>587.3</b>	<b>494.0</b>	<b>458.9</b>	<b>446.5</b>	<b>440.8</b>	<b>437.7</b>	<b>429.5</b>
60°	<b>556.2</b>	<b>476.7</b>	<b>448.2</b>	<b>435.3</b>	<b>428.8</b>	<b>424.9</b>	<b>417.4</b>
75°	<b>532.4</b>	<b>465.6</b>	<b>439.9</b>	<b>423.4</b>	<b>410.6</b>	<b>402.7</b>	<b>395.0</b>
90°	<b>537.2</b>	<b>463.6</b>	<b>439.2</b>	<b>420.4</b>	<b>402.4</b>	<b>386.8</b>	<b>367.0</b>
110°	<b>536.0</b>	<b>455.1</b>	<b>425.0</b>	<b>407.8</b>	<b>394.4</b>	<b>381.0</b>	<b>355.4</b>
120°	<b>549.3</b>	<b>460.0</b>	<b>427.0</b>	<b>400.0</b>	<b>379.2</b>	<b>364.4</b>	<b>336.5</b>
135°	<b>611.2</b>	<b>492.3</b>	<b>444.1</b>	<b>416.6</b>	<b>388.2</b>	<b>359.8</b>	<b>306.0</b>
150°	<b>726.5</b>	<b>580.5</b>	<b>492.8</b>	<b>446.9</b>	<b>426.0</b>	<b>405.0</b>	<b>351.1</b>
Run VMG	<b>838.9</b>	<b>670.3</b>	<b>569.0</b>	<b>515.6</b>	<b>490.6</b>	<b>460.7</b>	<b>405.5</b>

**Certificate**  
Number **US6007**  
ORC Ref **USAX02A93B0**  
Issued On **20/06/2019**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**  
Default 850kg  
Maximum **935kg**  
Minimum\* **701kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **579.0 1.0363**  
Non Spin OSN **564.6 1.0627**

<b>Selected Courses</b>							
Windward / Leeward	<b>865.4</b>	<b>702.1</b>	<b>612.2</b>	<b>570.5</b>	<b>551.2</b>	<b>531.9</b>	<b>496.6</b>
Circular Random	<b>735.1</b>	<b>597.0</b>	<b>524.5</b>	<b>483.3</b>	<b>457.7</b>	<b>439.7</b>	<b>412.0</b>
Coastal / Long Distance	<b>862.8</b>	<b>660.7</b>	<b>555.6</b>	<b>499.3</b>	<b>469.9</b>	<b>443.3</b>	<b>396.3</b>
Non Spinnaker	<b>806.5</b>	<b>647.5</b>	<b>561.3</b>	<b>510.6</b>	<b>478.6</b>	<b>456.9</b>	<b>427.7</b>

**Sails Limitations**  
Headsails **7** Spinnakers **5**

<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>42.4°</b>	<b>40.8°</b>	<b>39.4°</b>	<b>37.8°</b>	<b>37.2°</b>	<b>36.7°</b>	<b>36.3°</b>
Beat VMG	<b>4.04</b>	<b>4.91</b>	<b>5.49</b>	<b>5.76</b>	<b>5.89</b>	<b>5.97</b>	<b>6.13</b>
52°	<b>6.13</b>	<b>7.29</b>	<b>7.84</b>	<b>8.06</b>	<b>8.17</b>	<b>8.22</b>	<b>8.38</b>
60°	<b>6.47</b>	<b>7.55</b>	<b>8.03</b>	<b>8.27</b>	<b>8.39</b>	<b>8.47</b>	<b>8.62</b>
75°	<b>6.76</b>	<b>7.73</b>	<b>8.18</b>	<b>8.50</b>	<b>8.77</b>	<b>8.94</b>	<b>9.11</b>
90°	<b>6.70</b>	<b>7.77</b>	<b>8.20</b>	<b>8.56</b>	<b>8.95</b>	<b>9.31</b>	<b>9.81</b>
110°	<b>6.72</b>	<b>7.91</b>	<b>8.47</b>	<b>8.83</b>	<b>9.13</b>	<b>9.45</b>	<b>10.13</b>
120°	<b>6.55</b>	<b>7.83</b>	<b>8.43</b>	<b>9.00</b>	<b>9.49</b>	<b>9.88</b>	<b>10.70</b>
135°	<b>5.89</b>	<b>7.31</b>	<b>8.11</b>	<b>8.64</b>	<b>9.27</b>	<b>10.01</b>	<b>11.77</b>
150°	<b>4.95</b>	<b>6.20</b>	<b>7.31</b>	<b>8.06</b>	<b>8.45</b>	<b>8.89</b>	<b>10.25</b>
Run VMG	<b>4.29</b>	<b>5.37</b>	<b>6.33</b>	<b>6.98</b>	<b>7.34</b>	<b>7.81</b>	<b>8.88</b>
Gybe Angles	<b>142.9°</b>	<b>145.6°</b>	<b>148.9°</b>	<b>151.8°</b>	<b>151.6°</b>	<b>176.1°</b>	<b>143.2°</b>

**Class Division Length**  
CDL = **11.649**

**Storm Sails Areas**  
Heavy Weather Jib **44.42**  
Storm Jib (JL=11.80) **16.46**  
Storm Trysail **17.47**

**Owner**

<b>BOAT</b>		
Name <b>IMPETUOUS</b>	Sail Nr <b>USA 4206</b>	
File <b>US6007</b>	Data in <b>meters/kilograms</b>	

<b>RIG</b>				
Forestay Tension <b>Aft</b>		Spreaders <b>2</b>		
Inner Stay <b>None Fitted</b>		Runners <b>0</b>		
Carbon Mast <b>Yes</b>		Jumper Struts <b>None</b>		
Taper Hollows <b>No</b>		Jib Furler <b>Yes</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>17.238</b>	E <b>5.790</b>	MDT1 <b>0.134</b>	MW <b>0.261</b>	
IG <b>17.994</b>	J <b>5.010</b>	MDL1 <b>0.261</b>	GO <b>0.301</b>	
ISP <b>19.441</b>	SFJ <b>0.347</b>	MDT2 <b>0.105</b>	BD <b>0.216</b>	
BAS <b>1.943</b>	SPL <b>0.000</b>	MDL2 <b>0.189</b>	MWT <b>231.00</b>	
FSP <b>0.068</b>	TPS <b>7.300</b>	TL <b>0.860</b>	MCG <b>6.220</b>	

<b>INCLINING TEST AND FREEBOARDS</b>					
Inclining Test <b>Current Inclining</b>					
Flotation date <b>19/06/2019</b>				SG <b>1.0200</b>	
FFM <b>1.452</b>	FF <b>1.456</b>	SFFP <b>0.487</b>			
FAM <b>1.108</b>	FA <b>1.109</b>	SAFP <b>12.602</b>			
W1 <b>106.2</b>	PD1 <b>474.6</b>	WD <b>12.430</b>			
W2 <b>106.2</b>	PD2 <b>474.6</b>	GSA <b>1.0</b>			
W3 <b>106.2</b>	PD3 <b>474.6</b>	RSA <b>1.0</b>			
W4 <b>106.2</b>	PD4 <b>474.6</b>	PLM <b>9000.0</b>			
LCF from stem on CL / on sheer				<b>7.182 / 7.430</b>	
Maximum beam station from stem				<b>8.501</b>	
RM Measured				<b>219.0kg-m</b>	
RM Default				<b>213.7kg-m</b>	
Limit of positive stability / Stab.Index				<b>134.5° / 137.3</b>	
Freeboard at mast at 5.357				<b>1.233</b>	



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

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0.435</b>	
Type <b>Folding 2 blades</b>	PBW <b>0.109</b>	
Twin Screw <b>No</b>	PIPA <b>0.0040</b>	
ST1 <b>0.070</b>	ST3 <b>0.180</b>	ST5 <b>0.270</b>
ST2 <b>0.180</b>	ST4 <b>0.110</b>	EDL <b>1.920</b>

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<b>COMMENTS</b>

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

<b>BILGEBOARD</b>		
BS	BT	BA
BF	BX	
BC	BY	



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<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.170	1.39	2.31	3.71	4.82	59.88	61.10	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	21.85	17.48	19.66	11.32	10.89	184.10	AS · (SFL + 4·SHW) / 6		

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.07	0.77	1.47	2.70	3.89	5.25	18.09	48.39					IRC J2

<b>MEASUREMENT INVENTORY</b>				
Measurer	Date	Comment		
Id	Item	Weight	Distance	VCG Description
a	Ancher	0.0	0.00	
Id	Item	Weight	Description	

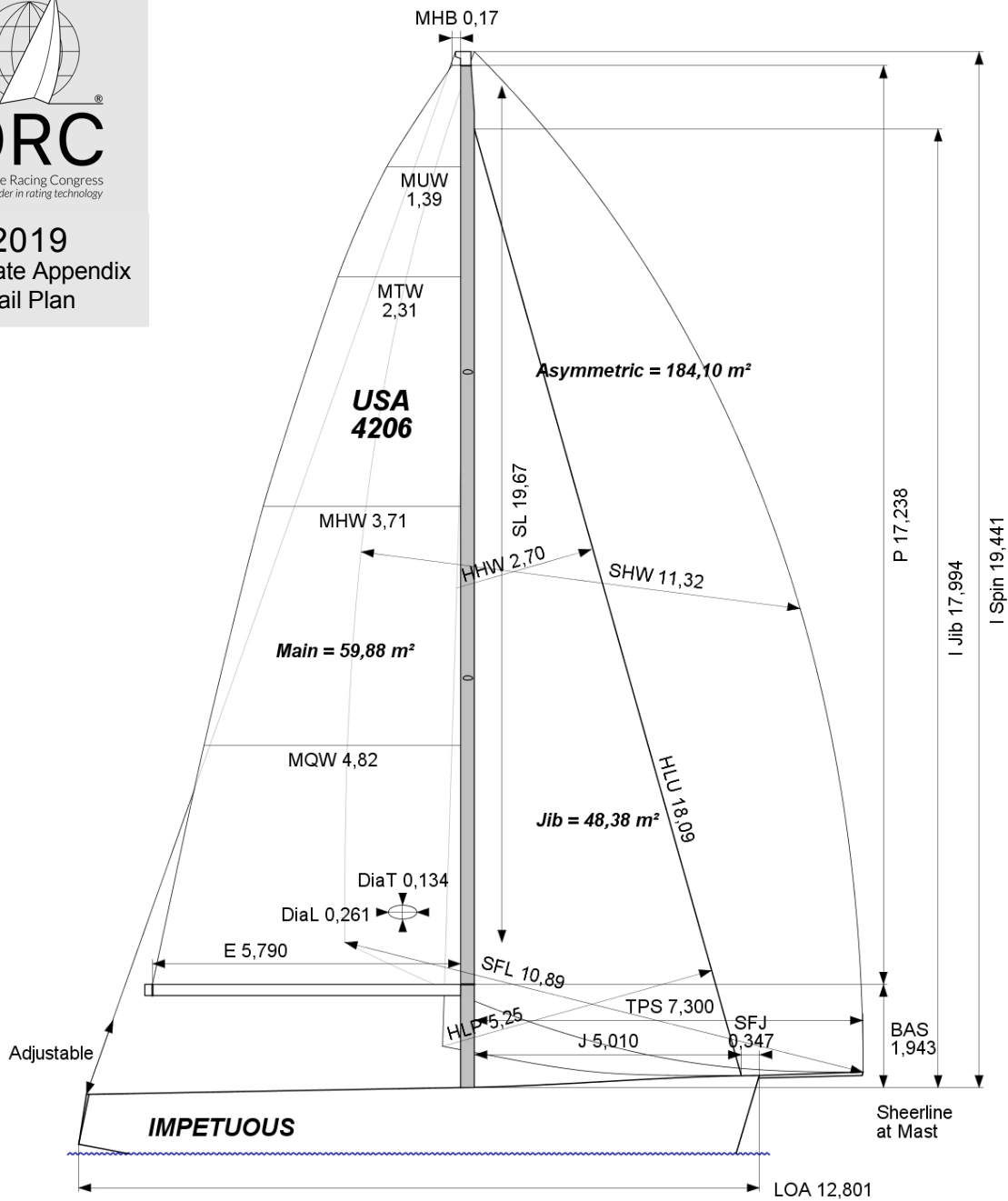
<b>MEASUREMENT INVENTORY</b>									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
	Tank					0.00	0.00	5.0	
Id	Item	Weight	Distance	VCG Description					



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2571871	0.17	1.39	2.31	3.71	4.82	59.89			Quantum		Race Main

**HEADSAILS (1)**

Id	HHB	HUV	HTW	HWW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
2571880	0.07	0.77	1.47	2.70	3.89	5.25	18.09	105%	48.39						Quantum	IRC J2

**SYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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**ASYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
2571891	21.85	17.48	19.66	11.32	10.89	184.10	asym				Quantum	A2