

<b>BOAT</b> Name <b>IMPETUOUS</b> Sail Nr <b>USA 4206</b>	<b>GPH</b> <b>542.9</b>	<b>HULL</b> Length Overall <b>12.801m</b> Maximum Beam <b>3.910m</b> Displacement <b>7,791kg</b> Draft <b>2.748m</b> Plan Review IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.000%</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>06/2006</b> Age <b>05/2007</b> Age Allowance <b>0.455%</b> Offset File <b>swan42cs-usa4206.off - 15/09/2020</b> Measurement by - <b>20/10/2007</b>		IMSL <b>11.884m</b> VCGD <b>-0.412m</b> Sink <b>24.58kg/mm</b> RL <b>11.190m</b> VCGM <b>-0.312m</b> WS <b>33.38m<sup>2</sup></b> LSM0 <b>11.600m</b> Displacement/Length ratio <b>4.9914</b>



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<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>528.6</b>			<b>593.6</b>		
Time on Time	<b>1.1351</b>			<b>1.1371</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>611.5</b>	<b>483.7</b>	<b>435.6</b>	<b>787.6</b>	<b>594.1</b>	<b>528.3</b>
Time on Time	<b>1.1038</b>	<b>1.3954</b>	<b>1.5497</b>	<b>0.8570</b>	<b>1.1362</b>	<b>1.2778</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>898.5</b>	<b>739.5</b>	<b>660.7</b>	<b>631.3</b>	<b>618.6</b>	<b>610.4</b>	<b>596.5</b>
52°	<b>591.0</b>	<b>497.0</b>	<b>461.2</b>	<b>448.9</b>	<b>443.4</b>	<b>440.5</b>	<b>432.7</b>
60°	<b>559.4</b>	<b>479.0</b>	<b>450.2</b>	<b>437.4</b>	<b>431.2</b>	<b>427.6</b>	<b>420.5</b>
75°	<b>535.2</b>	<b>467.5</b>	<b>441.6</b>	<b>425.4</b>	<b>412.9</b>	<b>405.3</b>	<b>398.1</b>
90°	<b>539.9</b>	<b>465.4</b>	<b>440.7</b>	<b>422.2</b>	<b>404.7</b>	<b>389.3</b>	<b>369.8</b>
110°	<b>537.9</b>	<b>456.5</b>	<b>426.5</b>	<b>409.5</b>	<b>395.8</b>	<b>381.9</b>	<b>357.0</b>
120°	<b>550.9</b>	<b>461.3</b>	<b>428.4</b>	<b>401.7</b>	<b>381.0</b>	<b>365.7</b>	<b>337.9</b>
135°	<b>612.7</b>	<b>493.6</b>	<b>445.1</b>	<b>417.8</b>	<b>389.7</b>	<b>361.7</b>	<b>308.5</b>
150°	<b>728.1</b>	<b>581.7</b>	<b>493.9</b>	<b>447.9</b>	<b>427.2</b>	<b>406.4</b>	<b>353.7</b>
Run VMG	<b>840.7</b>	<b>671.7</b>	<b>570.3</b>	<b>516.7</b>	<b>491.8</b>	<b>461.7</b>	<b>408.5</b>

**Certificate**  
Number **US6007**  
ORC Ref **0341000QCO**  
Issued On **15/09/2020**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**  
Default 851kg  
Maximum **935kg**  
Minimum\* **701kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **581.9 1.0311**  
Non Spin OSN **567.6 1.0571**

<b>Selected Courses</b>							
Windward / Leeward	<b>869.6</b>	<b>705.6</b>	<b>615.5</b>	<b>574.0</b>	<b>555.2</b>	<b>536.0</b>	<b>502.5</b>
Circular Random	<b>738.6</b>	<b>599.9</b>	<b>527.2</b>	<b>486.0</b>	<b>460.6</b>	<b>442.9</b>	<b>415.8</b>
Coastal / Long Distance	<b>866.7</b>	<b>663.8</b>	<b>558.4</b>	<b>502.2</b>	<b>472.9</b>	<b>446.3</b>	<b>399.4</b>
Non Spinnaker	<b>810.3</b>	<b>650.6</b>	<b>564.1</b>	<b>513.3</b>	<b>481.3</b>	<b>459.6</b>	<b>430.0</b>

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

<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>42.8°</b>	<b>40.9°</b>	<b>39.4°</b>	<b>38.1°</b>	<b>37.5°</b>	<b>37.1°</b>	<b>36.8°</b>
Beat VMG	<b>4.01</b>	<b>4.87</b>	<b>5.45</b>	<b>5.70</b>	<b>5.82</b>	<b>5.90</b>	<b>6.03</b>
52°	<b>6.09</b>	<b>7.24</b>	<b>7.81</b>	<b>8.02</b>	<b>8.12</b>	<b>8.17</b>	<b>8.32</b>
60°	<b>6.43</b>	<b>7.51</b>	<b>8.00</b>	<b>8.23</b>	<b>8.35</b>	<b>8.42</b>	<b>8.56</b>
75°	<b>6.73</b>	<b>7.70</b>	<b>8.15</b>	<b>8.46</b>	<b>8.72</b>	<b>8.88</b>	<b>9.04</b>
90°	<b>6.67</b>	<b>7.74</b>	<b>8.17</b>	<b>8.53</b>	<b>8.90</b>	<b>9.25</b>	<b>9.73</b>
110°	<b>6.69</b>	<b>7.89</b>	<b>8.44</b>	<b>8.79</b>	<b>9.10</b>	<b>9.43</b>	<b>10.08</b>
120°	<b>6.53</b>	<b>7.80</b>	<b>8.40</b>	<b>8.96</b>	<b>9.45</b>	<b>9.84</b>	<b>10.65</b>
135°	<b>5.88</b>	<b>7.29</b>	<b>8.09</b>	<b>8.62</b>	<b>9.24</b>	<b>9.95</b>	<b>11.67</b>
150°	<b>4.94</b>	<b>6.19</b>	<b>7.29</b>	<b>8.04</b>	<b>8.43</b>	<b>8.86</b>	<b>10.18</b>
Run VMG	<b>4.28</b>	<b>5.36</b>	<b>6.31</b>	<b>6.97</b>	<b>7.32</b>	<b>7.80</b>	<b>8.81</b>
Gybe Angles	<b>143.0°</b>	<b>145.5°</b>	<b>149.0°</b>	<b>151.8°</b>	<b>152.0°</b>	<b>176.0°</b>	<b>143.3°</b>

**Class Division Length**  
CDL = **11.532**

**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>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>0.474</b>
FAM <b>1.108</b>	FA <b>1.109</b>	SAFP <b>12.543</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>7.183 / 7.434</b>
Maximum beam station from stem		<b>8.347</b>
RM Measured		<b>219.0kg-m</b>
RM Default		<b>215.5kg-m</b>
Limit of positive stability / Stab.Index		<b>133.7° / 136.6</b>
Freeboard at mast at 5.357		<b>1.232</b>



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<b>RIG</b>			
Forestay Tension <b>Aft</b>	Runners/Checkstays <b>0</b>		Spreaders <b>2</b>
Inner Stay <b>None Fitted</b>	Main Furler <b>No</b>		Jib Furler <b>Yes</b>
Carbon Mast <b>Yes</b>	Articulated Bowsprit <b>No</b>		Fiber Rigging <b>No</b>
Non-Circular Rigging <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>
FSD <b>0.034</b>	TPS <b>7.300</b>	TL <b>0.860</b>	MCG <b>6.220</b>

<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>CENTERBOARD</b>	
N/A	



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<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.18	1.37	2.29	3.68	4.79	59.52	60.70	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				
	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	Flying	Meas.Date	Material	Comment
0.07	0.77	1.47	2.70	3.89	5.25	18.09	48.39	No			IRC J2

<b>MEASUREMENT INVENTORY</b>				
Measurer				
Date <b>19/06/2019</b>				
Comment				
<b>Internal Ballast total = 0.0</b>				
Id	Item	Weight	Distance	VCG Description
a	Anchor	0.0	0.00	
Id	Item	Weight Description		

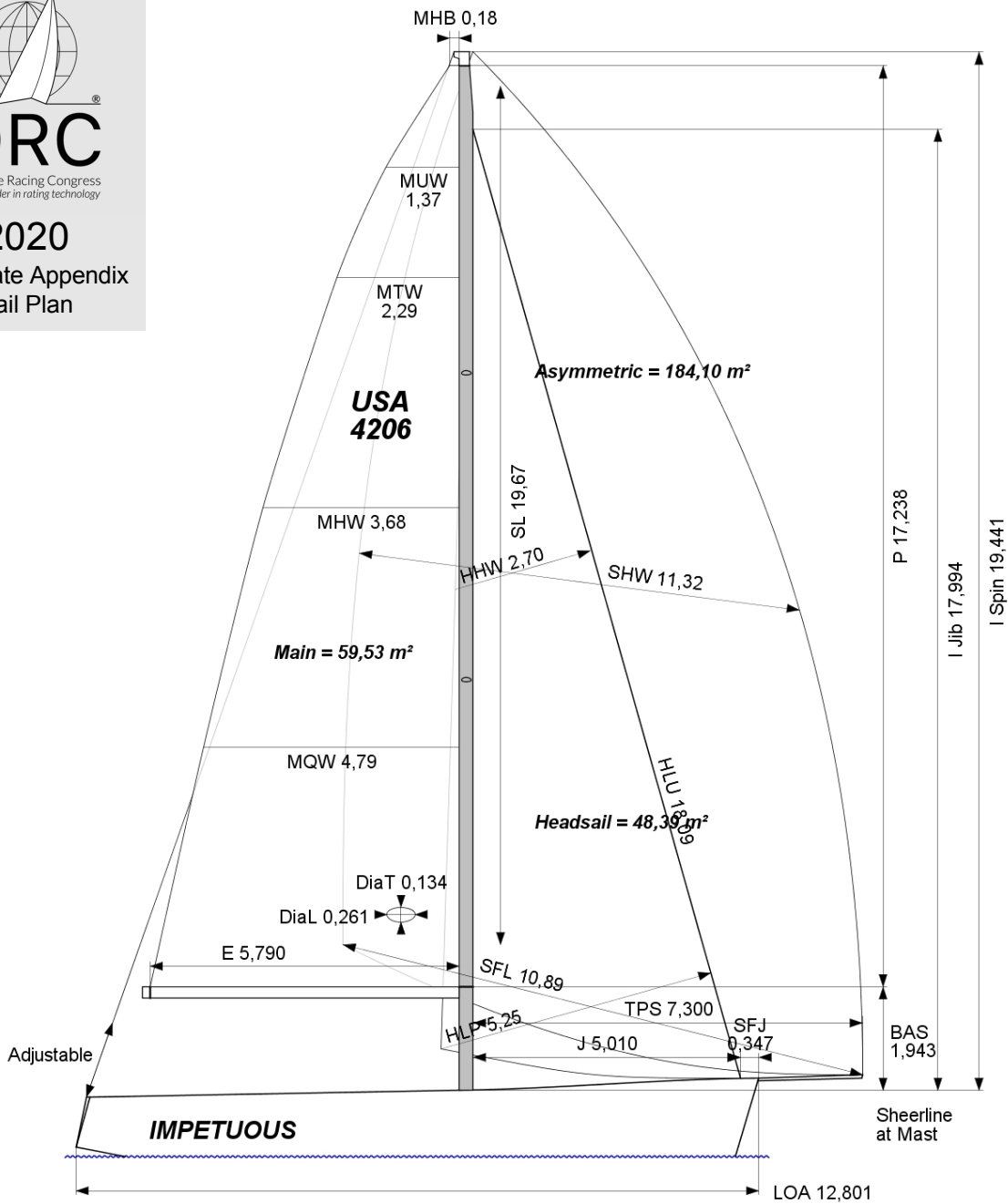
<b>MEASUREMENT INVENTORY</b>								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
1	Tank	FUEL		140.0	5.70	0.00	48.9	
Id	Item	Weight	Distance	VCG Description				



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2020	0.18	1.37	2.29	3.68	4.79	59.53		07/08/2020	doyle	Unknown	

**HEADSAILS (1)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
2571880	0.07	0.77	1.47	2.70	3.89	5.25	18.09	105%	48.39		No			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 (2)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
2571891	21.85	17.48	19.67	11.32	10.89	184.10	asym			Quantum		A2
A3	20.81	18.27	19.54	9.69	10.90	161.73	asym		07/08/2020	DOYLE	Unknown	A3