

<b>BOAT</b> Name <b>IRONFX</b> Sail Nr <b>CYP-46</b>	<b>GPH</b> <b>507.9</b>	<b>HULL</b> Length Overall <b>13.901m</b> Maximum Beam <b>4.188m</b> Displacement <b>6,880kg</b> Draft <b>2.884m</b> IMS Reg. Division <b>Performance</b> Dynamic Allowance <b>0.000%</b> Fwd Accommodation <b>No</b> Hull Construction <b>Light</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class <b>COREL 45</b> Designer <b>B. FARR</b> Builder <b>CARROL</b> Series <b>06/1996</b> Age <b>01/1997</b> Age Allowance <b>0.487%</b> Offset File <b>US30708.OFF - 06/09/1996 11:52:00</b> Measurement by - <b>31/05/2012</b>		IMSLS <b>12.293m</b> VCGD <b>-0.895m</b> Sink <b>25.68kg/mm</b> RL <b>12.906m</b> VCGM <b>-0.900m</b> WS <b>34.81m<sup>2</sup></b> LSM0 <b>12.003m</b> Displacement/Length ratio <b>3.9785</b>



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>493.5</b>			<b>554.5</b>		
Time on Time	<b>1.2159</b>			<b>1.2174</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>576.5</b>	<b>452.5</b>	<b>397.4</b>	<b>744.0</b>	<b>557.8</b>	<b>485.6</b>
Time on Time	<b>1.1708</b>	<b>1.4916</b>	<b>1.6987</b>	<b>0.9073</b>	<b>1.2101</b>	<b>1.3899</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>831.8</b>	<b>679.2</b>	<b>612.8</b>	<b>587.8</b>	<b>575.3</b>	<b>563.7</b>	<b>554.1</b>
52°	<b>545.1</b>	<b>459.1</b>	<b>432.8</b>	<b>422.4</b>	<b>415.9</b>	<b>412.1</b>	<b>399.2</b>
60°	<b>513.8</b>	<b>445.0</b>	<b>421.4</b>	<b>408.2</b>	<b>399.9</b>	<b>394.6</b>	<b>380.5</b>
75°	<b>489.9</b>	<b>436.0</b>	<b>410.1</b>	<b>388.5</b>	<b>375.0</b>	<b>367.0</b>	<b>357.9</b>
90°	<b>494.5</b>	<b>437.4</b>	<b>410.7</b>	<b>384.5</b>	<b>362.3</b>	<b>345.5</b>	<b>327.6</b>
110°	<b>520.1</b>	<b>438.1</b>	<b>403.2</b>	<b>379.4</b>	<b>361.2</b>	<b>345.1</b>	<b>309.7</b>
120°	<b>536.1</b>	<b>443.9</b>	<b>406.7</b>	<b>373.2</b>	<b>348.5</b>	<b>331.4</b>	<b>296.7</b>
135°	<b>594.6</b>	<b>475.9</b>	<b>427.1</b>	<b>395.0</b>	<b>363.0</b>	<b>330.7</b>	<b>271.6</b>
150°	<b>707.7</b>	<b>560.9</b>	<b>476.6</b>	<b>431.0</b>	<b>401.3</b>	<b>372.1</b>	<b>314.0</b>
Run VMG	<b>817.1</b>	<b>647.7</b>	<b>550.3</b>	<b>491.8</b>	<b>454.5</b>	<b>423.1</b>	<b>362.6</b>

**Certificate**  
Number **01/19**  
ORC Ref **CYP00000838**  
Issued On **02/05/2019**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**  
Default **893kg**  
Maximum **974kg**  
Minimum\* **731kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **540.2 1.1107**  
Non Spin OSN **527.2 1.1380**

Selected Courses							
Windward / Leeward	<b>824.4</b>	<b>663.4</b>	<b>581.5</b>	<b>539.8</b>	<b>514.9</b>	<b>493.4</b>	<b>458.4</b>
Circular Random	<b>696.0</b>	<b>563.8</b>	<b>493.3</b>	<b>452.0</b>	<b>425.1</b>	<b>405.4</b>	<b>375.8</b>
Coastal / Long Distance	<b>823.7</b>	<b>625.1</b>	<b>527.1</b>	<b>470.4</b>	<b>437.1</b>	<b>407.9</b>	<b>357.9</b>
Non Spinnaker	<b>752.7</b>	<b>604.5</b>	<b>524.0</b>	<b>475.9</b>	<b>444.7</b>	<b>422.7</b>	<b>391.4</b>

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

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>42.6°</b>	<b>41.3°</b>	<b>38.8°</b>	<b>37.3°</b>	<b>36.4°</b>	<b>35.7°</b>	<b>35.5°</b>
Beat VMG	<b>4.33</b>	<b>5.30</b>	<b>5.87</b>	<b>6.12</b>	<b>6.26</b>	<b>6.39</b>	<b>6.50</b>
52°	<b>6.60</b>	<b>7.84</b>	<b>8.32</b>	<b>8.52</b>	<b>8.66</b>	<b>8.74</b>	<b>9.02</b>
60°	<b>7.01</b>	<b>8.09</b>	<b>8.54</b>	<b>8.82</b>	<b>9.00</b>	<b>9.12</b>	<b>9.46</b>
75°	<b>7.35</b>	<b>8.26</b>	<b>8.78</b>	<b>9.27</b>	<b>9.60</b>	<b>9.81</b>	<b>10.06</b>
90°	<b>7.28</b>	<b>8.23</b>	<b>8.77</b>	<b>9.36</b>	<b>9.94</b>	<b>10.42</b>	<b>10.99</b>
110°	<b>6.92</b>	<b>8.22</b>	<b>8.93</b>	<b>9.49</b>	<b>9.97</b>	<b>10.43</b>	<b>11.63</b>
120°	<b>6.71</b>	<b>8.11</b>	<b>8.85</b>	<b>9.65</b>	<b>10.33</b>	<b>10.86</b>	<b>12.13</b>
135°	<b>6.05</b>	<b>7.56</b>	<b>8.43</b>	<b>9.11</b>	<b>9.92</b>	<b>10.89</b>	<b>13.26</b>
150°	<b>5.09</b>	<b>6.42</b>	<b>7.55</b>	<b>8.35</b>	<b>8.97</b>	<b>9.68</b>	<b>11.46</b>
Run VMG	<b>4.41</b>	<b>5.56</b>	<b>6.54</b>	<b>7.32</b>	<b>7.92</b>	<b>8.51</b>	<b>9.93</b>
Gybe Angles	<b>143.1°</b>	<b>143.1°</b>	<b>148.5°</b>	<b>155.4°</b>	<b>163.8°</b>	<b>180.0°</b>	<b>147.7°</b>

**Class Division Length**  
CDL = **12.601**

**Storm Sails Areas**  
Heavy Weather Jib **44.09**  
Storm Jib (JL=11.75) **16.33**  
Storm Trysail **21.95**

**Owner**

<b>BOAT</b>	
Name <b>IRONFX</b>	Sail Nr <b>CYP-46</b>
File <b>GR46</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Boom Inclining</b>	LCFD	<b>8.750</b>	
Flotation date <b>22/04/2019</b>	SG	<b>1.0290</b>	
FFM <b>1.496</b>	FF <b>1.495</b>	SFFP	<b>0.201</b>
FAM <b>1.132</b>	FA <b>1.132</b>	SAFP	<b>13.110</b>
W1 <b>133.6</b>	PD1 <b>215.0</b>	WD	<b>6.550</b>
W2 <b>133.6</b>	PD2 <b>213.6</b>	GSA	<b>1.0</b>
W3 <b>133.6</b>	PD3 <b>217.3</b>	RSA	<b>1.0</b>
W4 <b>133.6</b>	PD4 <b>220.1</b>	PLM	<b>9000.0</b>
LCF from stem on CL / on sheer		<b>7.637 / 7.882</b>	
Maximum beam station from stem		<b>8.733</b>	
RM Measured		<b>318.3kg-m</b>	
RM Default		<b>248.4kg-m</b>	
Limit of positive stability / Stab.Index		<b>144.7° / 143.1</b>	
Freeboard at mast at 5.416		<b>1.300</b>	



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<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>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>18.580</b>	E <b>6.750</b>	MDT1 <b>0.140</b>	MW <b>0.248</b>
IG <b>17.954</b>	J <b>5.416</b>	MDL1 <b>0.248</b>	GO <b>0.283</b>
ISP <b>19.669</b>	SFJ <b>0.000</b>	MDT2 <b>0.091</b>	BD <b>0.293</b>
BAS <b>1.929</b>	SPL <b>5.930</b>	MDL2 <b>0.144</b>	MWT <b>214.50</b>
FSP <b>0.072</b>	TPS	TL <b>2.755</b>	MCG <b>6.200</b>

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

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD	<b>0.423</b>	
Type <b>Folding 2 blades</b>	PBW	<b>0.114</b>	
Twin Screw <b>No</b>	PIPA	<b>0.0037</b>	
ST1 <b>0.042</b>	ST3 <b>0.180</b>	ST5	<b>0.280</b>
ST2 <b>0.180</b>	ST4 <b>0.110</b>	EDL	<b>0.698</b>

<b>COMMENTS</b>	

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

<b>CENTERBOARD</b>	
<b>N/A</b>	



<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.270	1.47	2.61	4.41	5.67	75.32	77.06	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	176.70		SL · (SFL + 4·SHW) / 6	
	19.50	19.50	19.50	10.97	10.49				
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>
0.12	0.83	1.54	2.89	4.22	5.58	18.17	52.09	Y		18/06/2018	Unknow	
0.12	0.80	1.49	2.85	4.21	5.57	18.11	51.47	Y		20/05/2014	Carbon	LIGHT
0.11	0.79	1.48	2.83	4.19	5.56	18.08	51.13	Y		20/05/2014	Carbon	MEDIUM
0.11	0.78	1.48	2.86	4.21	5.57	17.93	50.92	Y		15/08/2013	Carbon	MEDIUM AP
0.13	0.77	1.43	2.79	4.18	5.57	17.85	50.14	Y		02/06/2012	Kevlar	HEAVY
0.10	0.74	1.40	2.73	4.12	5.50	17.97	49.60	Y		21/04/2018	Unknow	
0.06	0.53	1.05	1.17	3.37	4.56	15.97	31.99	Y		31/01/2012	Unknow	STAYSAIL

<b>MEASUREMENT INVENTORY</b>				
Measurer <b>GRE-21</b>				
Date <b>22/04/2019</b>				
Comment				
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>
<b>Id</b>	<b>Item</b>	<b>Maker</b>	<b>Model</b>	
1	Engine	YANMAR	4JH (47 HP)	
<b>Id</b>	<b>Item</b>	<b>Weight Description</b>		

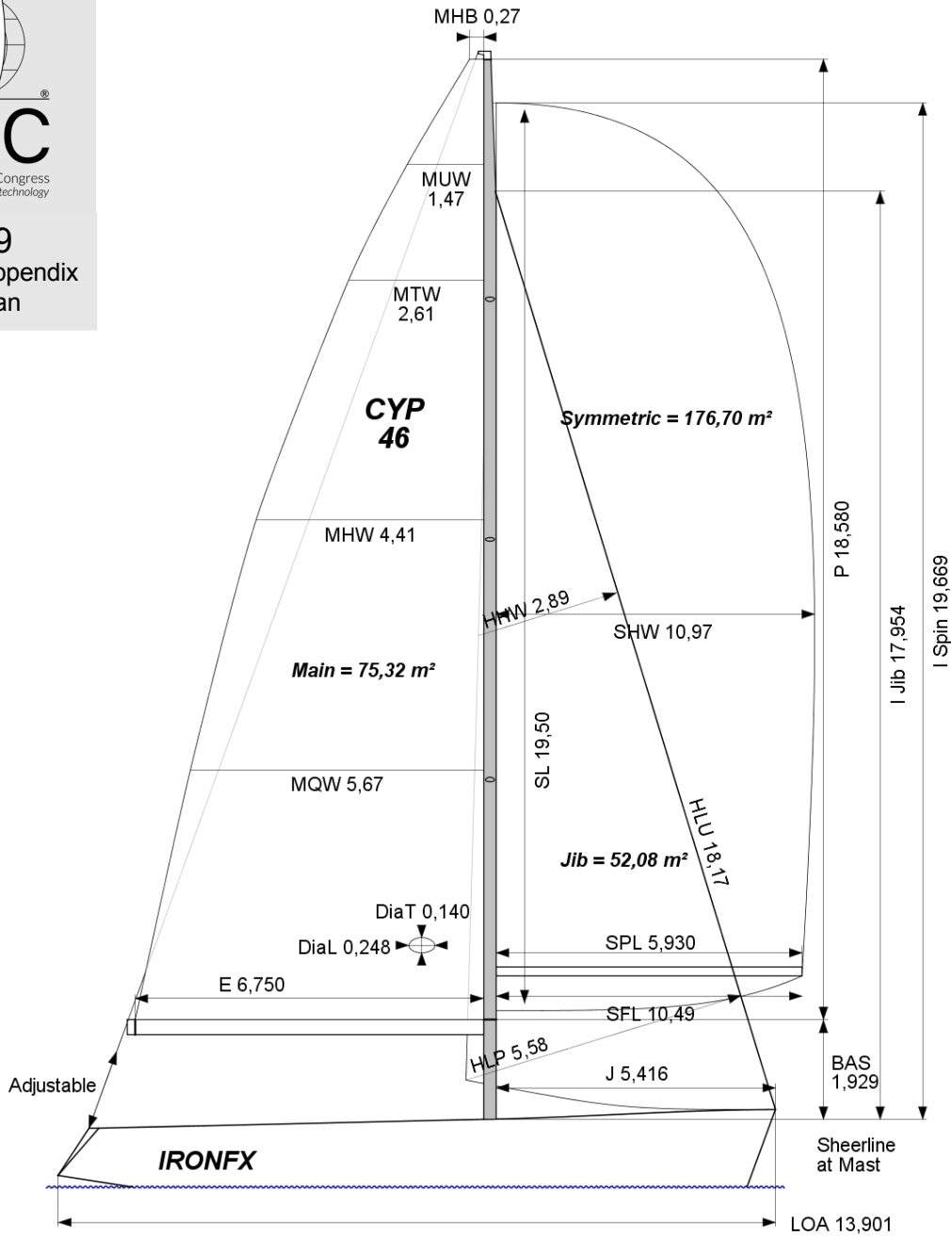
<b>MEASUREMENT INVENTORY</b>						
<b>Id</b>	<b>Item</b>	<b>Tank Use</b>	<b>Tank Type</b>	<b>Capcty</b>	<b>Dist.</b>	<b>VCG Condtn Description</b>
1	Tank	FUEL	Aluminium	110.0	8.40	15-0
2	Tank	WATER	Soft bag	80.0	7.20	0-0 (P)
3	Tank	WATER	Soft bag	80.0	7.20	0-0 (S)
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>		
1	Ballast	79.0	12.10			
1	Battery	7.60		1 x 100 Ah (S)		
2	Battery	8.00		1 x 100 Ah (S)		
3	Battery	8.00		1 x 135 Ah (P)		



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Sail Plan



**SAILS INVENTORY**

MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0,27	1,47	2,61	4,41	5,67	75,32		30/05/2017	NORTH	Unknown						
1	0,26	1,46	2,59	4,35	5,66	74,89		20/05/2014	QUANTUM	Carbon						
HEADSAILS (7)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
8	0,12	0,83	1,54	2,89	4,22	5,58	18,17	103%	52,09	Y			18/06/2018		Unknown	
1	0,12	0,80	1,49	2,85	4,21	5,57	18,11	103%	51,47	Y			20/05/2014	QUANTUM	Carbon	LIGHT
2	0,11	0,79	1,48	2,83	4,19	5,56	18,08	103%	51,13	Y			20/05/2014	QUANTUM	Carbon	MEDIUM
3	0,11	0,78	1,48	2,86	4,21	5,57	17,93	103%	50,92	Y			15/08/2013	QUANTUM	Carbon	MEDIUM AP
4	0,13	0,77	1,43	2,79	4,18	5,57	17,85	103%	50,14	Y			02/06/2012	QUANTUM	Kevlar	HEAVY
9	0,10	0,74	1,40	2,73	4,12	5,50	17,97	102%	49,60	Y			21/04/2018	NORTH	Unknown	
6	0,06	0,53	1,05	1,17	3,37	4,56	15,97	84%	31,99		Y		31/01/2012	QUANTUM	Unknown	STAYSAIL
SYMMETRIC SPINNAKERS (4)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	19,50	19,50	19,50	10,97	10,49	176,71		05/08/2013	QUANTUM	Nylon	0.60 RUNNER					
2	19,48	19,48	19,48	10,78	10,71	174,77		05/08/2013	recut	Nylon	0.50 RUNNER					
3	19,44	19,44	19,44	10,72	10,83	174,03		05/08/2013	recut	Nylon	0.75 AP					
4	17,76	17,76	17,76	7,79	9,69	120,92		23/09/2002		Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				