

<b>BOAT</b> Name <b>ZEPHYR</b> Sail Nr <b>70059</b>	<b>GPH</b> <b>526.5</b>	<b>HULL</b> Length Overall <b>12.411m</b> Maximum Beam <b>3.956m</b> Displacement <b>4,967kg</b> Draft <b>2.591m</b> Plan Review IMS Reg. Division <b>Performance</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>FARR 40 OD</b> Designer <b>FARR</b> Builder <b>CARROLL</b> Series <b>05/1997</b> Age <b>05/1998</b> Age Allowance <b>0.487%</b> Offset File <b>farr40.OD - 10/01/2020 00:00:00</b> Measurement by - <b>01/01/2000</b>		IMSL <b>11.218m</b> VCGD <b>-0.367m</b> Sink <b>20.97kg/mm</b> RL <b>11.139m</b> VCGM <b>-0.364m</b> WS <b>27.67m<sup>2</sup></b> LSM0 <b>10.887m</b> Displacement/Length ratio <b>3.8492</b>



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>513.9</b>			<b>575.9</b>		
Time on Time	<b>1.1676</b>			<b>1.1720</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>585.1</b>	<b>473.2</b>	<b>420.1</b>	<b>750.8</b>	<b>581.3</b>	<b>509.0</b>
Time on Time	<b>1.1536</b>	<b>1.4265</b>	<b>1.6066</b>	<b>0.8990</b>	<b>1.1611</b>	<b>1.3262</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>846.7</b>	<b>701.4</b>	<b>652.5</b>	<b>632.7</b>	<b>619.6</b>	<b>606.3</b>	<b>606.0</b>
52°	<b>554.6</b>	<b>478.0</b>	<b>459.3</b>	<b>451.2</b>	<b>446.7</b>	<b>439.5</b>	<b>433.7</b>
60°	<b>523.0</b>	<b>463.9</b>	<b>445.9</b>	<b>436.8</b>	<b>431.1</b>	<b>424.8</b>	<b>414.0</b>
75°	<b>501.0</b>	<b>453.4</b>	<b>429.3</b>	<b>413.3</b>	<b>404.0</b>	<b>398.2</b>	<b>383.8</b>
90°	<b>503.2</b>	<b>453.1</b>	<b>425.1</b>	<b>399.9</b>	<b>381.9</b>	<b>371.2</b>	<b>359.6</b>
110°	<b>523.7</b>	<b>452.1</b>	<b>423.8</b>	<b>402.9</b>	<b>383.6</b>	<b>365.1</b>	<b>323.8</b>
120°	<b>537.3</b>	<b>455.1</b>	<b>417.8</b>	<b>390.5</b>	<b>370.9</b>	<b>352.5</b>	<b>317.1</b>
135°	<b>592.2</b>	<b>479.8</b>	<b>436.7</b>	<b>399.6</b>	<b>364.0</b>	<b>330.3</b>	<b>289.5</b>
150°	<b>702.3</b>	<b>557.9</b>	<b>480.7</b>	<b>439.1</b>	<b>405.3</b>	<b>372.8</b>	<b>304.3</b>
Run VMG	<b>810.9</b>	<b>644.2</b>	<b>555.1</b>	<b>499.8</b>	<b>462.8</b>	<b>429.3</b>	<b>351.4</b>

**Certificate**

Number **US6419**  
ORC Ref **03410000JII**  
Issued On **01/06/2020**  
VPP Ver. **2020 1.00**  
Valid until **31/12/2020**

**Crew Weight**

Default **777kg**  
Maximum **760kg**  
Minimum\* **570kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>564.0</b>	<b>1.0638</b>
Non Spin OSN	<b>551.9</b>	<b>1.0872</b>

Selected Courses							
Windward / Leeward	<b>828.8</b>	<b>672.8</b>	<b>603.8</b>	<b>566.2</b>	<b>541.2</b>	<b>517.8</b>	<b>478.7</b>
Circular Random	<b>710.1</b>	<b>580.3</b>	<b>512.3</b>	<b>472.8</b>	<b>447.1</b>	<b>428.0</b>	<b>398.5</b>
Coastal / Long Distance	<b>827.0</b>	<b>634.7</b>	<b>547.3</b>	<b>494.7</b>	<b>461.6</b>	<b>431.3</b>	<b>380.9</b>
Non Spinnaker	<b>777.6</b>	<b>628.0</b>	<b>547.6</b>	<b>500.0</b>	<b>469.5</b>	<b>448.1</b>	<b>418.5</b>

**Sails Limitations**

Headsails	Spinnakers
<b>6</b>	<b>4</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>42.8°</b>	<b>40.9°</b>	<b>38.6°</b>	<b>37.9°</b>	<b>37.1°</b>	<b>36.8°</b>	<b>37.3°</b>
Beat VMG	<b>4.25</b>	<b>5.13</b>	<b>5.52</b>	<b>5.69</b>	<b>5.81</b>	<b>5.94</b>	<b>5.94</b>
52°	<b>6.49</b>	<b>7.53</b>	<b>7.84</b>	<b>7.98</b>	<b>8.06</b>	<b>8.19</b>	<b>8.30</b>
60°	<b>6.88</b>	<b>7.76</b>	<b>8.07</b>	<b>8.24</b>	<b>8.35</b>	<b>8.47</b>	<b>8.70</b>
75°	<b>7.19</b>	<b>7.94</b>	<b>8.38</b>	<b>8.71</b>	<b>8.91</b>	<b>9.04</b>	<b>9.38</b>
90°	<b>7.15</b>	<b>7.95</b>	<b>8.47</b>	<b>9.00</b>	<b>9.43</b>	<b>9.70</b>	<b>10.01</b>
110°	<b>6.87</b>	<b>7.96</b>	<b>8.50</b>	<b>8.94</b>	<b>9.38</b>	<b>9.86</b>	<b>11.12</b>
120°	<b>6.70</b>	<b>7.91</b>	<b>8.62</b>	<b>9.22</b>	<b>9.71</b>	<b>10.21</b>	<b>11.35</b>
135°	<b>6.08</b>	<b>7.50</b>	<b>8.24</b>	<b>9.01</b>	<b>9.89</b>	<b>10.90</b>	<b>12.43</b>
150°	<b>5.13</b>	<b>6.45</b>	<b>7.49</b>	<b>8.20</b>	<b>8.88</b>	<b>9.66</b>	<b>11.83</b>
Run VMG	<b>4.44</b>	<b>5.59</b>	<b>6.49</b>	<b>7.20</b>	<b>7.78</b>	<b>8.39</b>	<b>10.25</b>
Gybe Angles	<b>143.5°</b>	<b>143.5°</b>	<b>150.0°</b>	<b>157.0°</b>	<b>171.0°</b>	<b>155.0°</b>	<b>144.8°</b>

**Class Division Length**

CDL = **11.172**

**Storm Sails Areas**

Heavy Weather Jib **36.11**  
Storm Jib (JL=10.63) **13.38**  
Storm Trysail **17.25**

**Owner**

<b>BOAT</b>	
Name <b>ZEPHYR</b>	Sail Nr <b>70059</b>
File <b>ZEPHYRFarr40OD</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>	
Inclining Test <b>Enter RM directly</b>	
Flotation date <b>14/01/2019</b>	SG RMCE <b>171.6</b>
FFM <b>1.346</b>	FF <b>1.346</b> SFFP <b>0.152</b>
FAM <b>1.026</b>	FA <b>1.026</b> SAFF <b>11.954</b>
LCF from stem on CL / on sheer <b>6.834 / 7.087</b>	
Maximum beam station from stem <b>8.199</b>	
RM Measured <b>171.6kg-m</b>	
RM Default <b>166.3kg-m</b>	
Limit of positive stability / Stab.Index <b>131.2° / 127.6</b>	
Freeboard at mast at 4.705 <b>1.204</b>	

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>
Inner Stay <b>None Fitted</b>	Runners/Checkstays <b>0</b>
Carbon Mast <b>Yes</b>	Jib Furler <b>No</b>
Fiber Rigging <b>No</b>	Main Furler <b>No</b>
Non-Circular Rigging <b>No</b>	
Articulated Bowsprit <b>No</b>	
P <b>16.700</b>	E <b>5.900</b> MDT1 <b>0.121</b> MW <b>0.240</b>
IG <b>16.318</b>	J <b>4.705</b> MDL1 <b>0.240</b> GO <b>0.250</b>
ISP <b>18.300</b>	SFJ <b>0.000</b> MDT2 <b>0.090</b> BD <b>0.225</b>
BAS <b>1.760</b>	SPL <b>5.200</b> MDL2 <b>0.104</b> MWT <b>176.70</b>
FSD <b>0.034</b>	TPS <b></b> TL <b>1.993</b> MCG <b>5.497</b>



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

<b>PROPELLER</b>	
Installation <b>Strut</b>	PRD <b>0.407</b>
Type <b>Folding 2 blades</b>	PBW <b>0.100</b>
Twin Screw <b>No</b>	PIPA <b>0.0038</b>
ST1 <b>0.065</b>	ST3 <b>0.180</b> ST5 <b>0.268</b>
ST2 <b>0.180</b>	ST4 <b>0.110</b> EDL <b>0.702</b>

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<b>COMMENTS</b>	
MASTHEAD SPINNAKER VALID ONLY IN CONJUNCTION WITH FARR 40 CLASS CERTIFICATE	

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



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<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>						
<b>Mainsail</b>	<b>MHB</b>	<b>MUW</b>	<b>MTW</b>	<b>MHW</b>	<b>MQW</b>	<b>Area Area (r) Formula</b>
	0.18	1.47	2.59	4.20	5.25	63.14 65.04 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
<b>Symmetric</b>	<b>SLU</b>	<b>SLE</b>	<b>SL</b>	<b>SHW</b>	<b>SFL</b>	
	18.50	18.50	18.50	10.50	10.53	161.97 SL · (SFL + 4·SHW) / 6
<b>Asymmetric</b>						
Not Available						

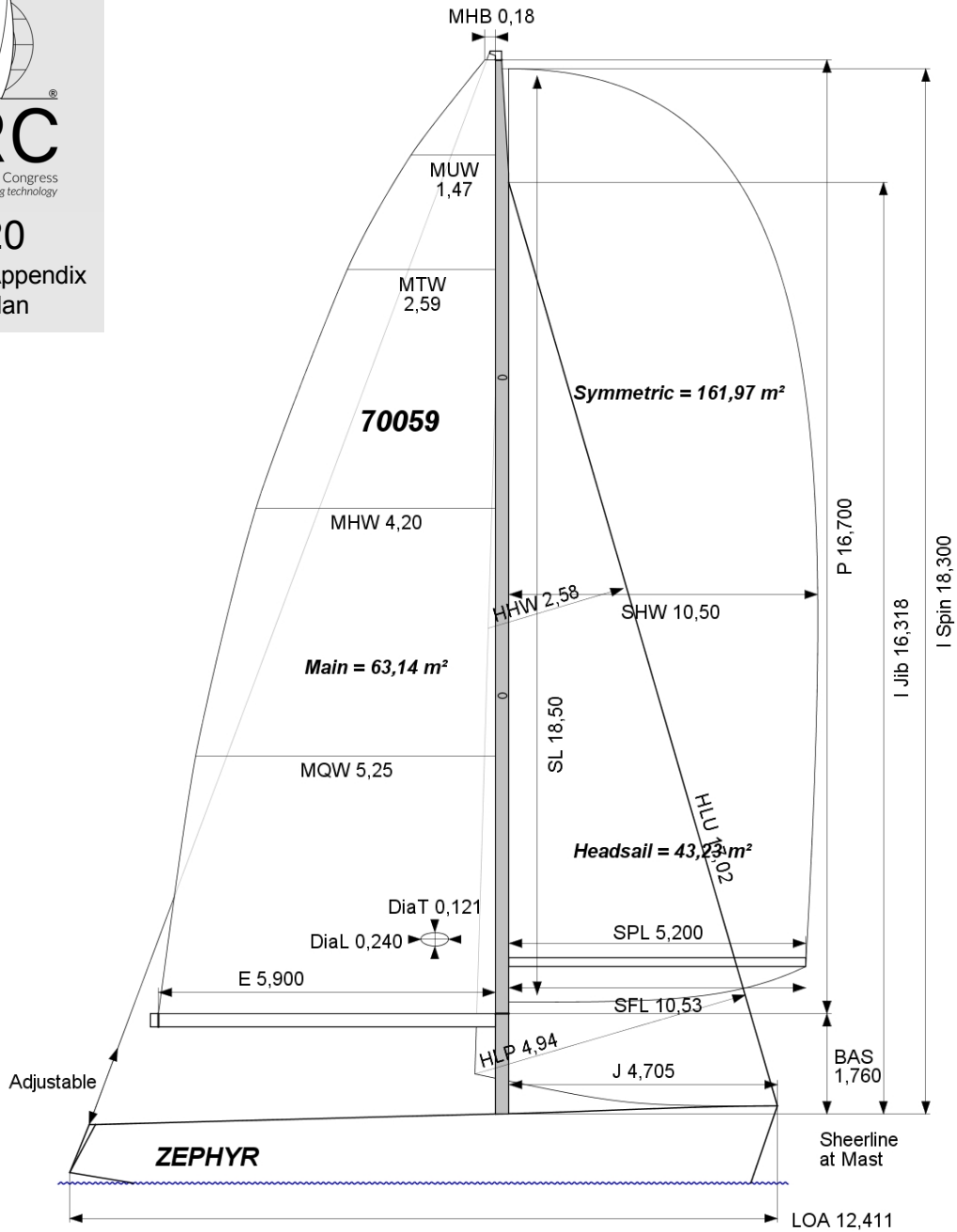
<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
<b>HHB</b>	<b>HUW</b>	<b>HTW</b>	<b>HHW</b>	<b>HQW</b>	<b>HLP</b>	<b>HLU</b>	<b>Area</b>	<b>Btn</b>	<b>Flying</b>	<b>Meas.Date</b>	<b>Material</b>	<b>Comment</b>
0.15	0.68	1.34	2.58	3.76	4.94	43.23		No			Unknow	Class Rules



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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

MAINSAIL (1)																	
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
ORC	0.18	1.47	2.59	4.20	5.25	63.14					Class Rules						
HEADSAILS (1)																	
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment	
1	0.15	0.68	1.34	2.58	3.76	4.94		105%	43.23		No					Unknow	Class Rules
SYMMETRIC SPINNAKERS (1)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
ORC	18.50	18.50	18.50	10.50	10.53	161.97					Class Rules						
ASYMMETRIC SPINNAKERS (0)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment					