



**ORC**

Offshore Racing Congress  
World leader in rating technology

**2020**  
**ORC Club**  
**Certificate**

**Rating Office**

**Offshore**  
**Racing**  
**Congress**



**Certificate**

Number **059/20**  
Issued On **02/10/2020**  
ORC Ref **03850000REA**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 658kg  
Maximum **560kg**  
Minimum\* **420kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>722.8</b>	<b>0.8301</b>
Non Spin OSN	<b>695.5</b>	<b>0.8626</b>

**Sails Limitations**

Headsails **5** Spinnakers **4**  
**Woven Polyester**  
**Asymmetric on centerline**  
**Spinnaker configuration**  
Symmetric: **No**  
Asymmetric: **Yes** **84.12**  
Flying H/S: **No**  
Spin. Pole: **No**

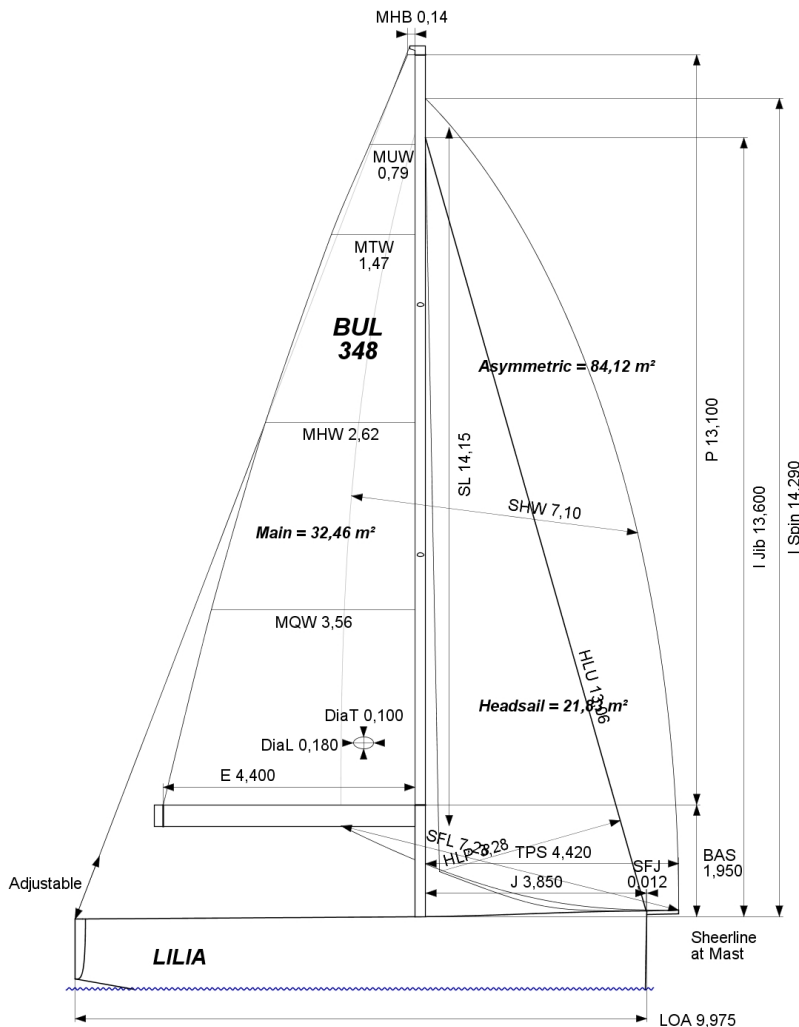
**Class Division Length**

**CDL = 8.184**

**Stability (Estimated)**

Limit Positive Stab.: **121.4°**  
Stability Index: **124.6**

**Owner**



BOAT		GPH		HULL		
Name	<b>Lilia</b>			Data File	<b>BUL348</b>	
Sail Nr	<b>BUL 348</b>			LOA	<b>9.975m</b>	
				Offset File	<b>H16A-MK-1.off</b>	
				MB	<b>3.512m</b>	
				Displacement	<b>6,416kg</b>	
				Draft	<b>1.953m</b>	
<b>CLASS</b>				IMS Division	<b>Cruiser/Racer</b>	
Class	<b>Hanse 348</b>			Dynamic All.	<b>0.362%</b>	
Designer	<b>Judel/Vrolik</b>			Plan Review	<b>Construction Solid</b>	
Builder	<b>Hanse</b>			Fiber Rigging	<b>No</b>	
Series	<b>01/2018</b>			Aramid Core	<b>No</b>	
Age Date	<b>01/2018</b>			Carbon Rudder	<b>No</b>	
Age Allowance	<b>0.065%</b>			Light Stanchions	<b>No</b>	
<b>COMMENTS</b>				IMSL	<b>9.551m</b>	
				VCGD	<b>0.023m</b>	
				Sink	<b>19.78kg/mm</b>	
				RL	<b>6.817m</b>	
				VCGM	<b>0.059m</b>	
				WS	<b>26.92m²</b>	
				LSM0	<b>9.694m</b>	
				Displacement/Length ratio	<b>7.0430</b>	
				Water Ballast	<b>0</b>	
				Trim Tab	<b>No</b>	
				BLR Index	<b>0.0000</b>	
<b>PROPELLER</b>				<b>CENTERBOARD</b>		
Installation	<b>Strut</b>	PRD	<b>0.380</b>			
Type	<b>Folding 2 blades</b>	PIPA	<b>0.0032</b>	<b>N/A</b>		
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>658.0</b>			<b>741.1</b>		
Time on Time	<b>0.9119</b>			<b>0.9108</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>789.8</b>	<b>597.6</b>	<b>525.0</b>	<b>1028.6</b>	<b>751.9</b>	<b>636.7</b>
Time on Time	<b>0.8547</b>	<b>1.1295</b>	<b>1.2856</b>	<b>0.6562</b>	<b>0.8977</b>	<b>1.0602</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>	
Name <b>Lilia</b>	Certificate Number <b>059/20</b>
Sail Nr <b>BUL 348</b>	Issued On <b>02/10/2020</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1234.7</b>	<b>1013.2</b>	<b>893.5</b>	<b>808.7</b>	<b>754.4</b>	<b>733.5</b>	<b>735.9</b>
52°	<b>796.1</b>	<b>668.3</b>	<b>593.5</b>	<b>544.5</b>	<b>519.9</b>	<b>509.0</b>	<b>505.9</b>
60°	<b>748.4</b>	<b>632.8</b>	<b>563.8</b>	<b>526.1</b>	<b>506.3</b>	<b>495.4</b>	<b>489.4</b>
75°	<b>714.2</b>	<b>598.4</b>	<b>534.5</b>	<b>510.7</b>	<b>495.2</b>	<b>482.3</b>	<b>465.9</b>
90°	<b>669.0</b>	<b>557.8</b>	<b>507.4</b>	<b>485.7</b>	<b>476.5</b>	<b>470.4</b>	<b>452.1</b>
110°	<b>664.1</b>	<b>550.3</b>	<b>503.2</b>	<b>479.2</b>	<b>458.6</b>	<b>440.0</b>	<b>420.6</b>
120°	<b>687.1</b>	<b>566.6</b>	<b>510.4</b>	<b>484.2</b>	<b>462.8</b>	<b>441.3</b>	<b>404.2</b>
135°	<b>763.8</b>	<b>622.7</b>	<b>539.4</b>	<b>501.3</b>	<b>478.7</b>	<b>457.9</b>	<b>417.8</b>
150°	<b>900.4</b>	<b>716.2</b>	<b>611.9</b>	<b>547.8</b>	<b>514.1</b>	<b>493.6</b>	<b>461.1</b>
Run VMG	<b>1039.7</b>	<b>827.0</b>	<b>706.5</b>	<b>632.6</b>	<b>592.4</b>	<b>539.5</b>	<b>488.9</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>1137.2</b>	<b>920.1</b>	<b>800.0</b>	<b>720.7</b>	<b>673.4</b>	<b>636.5</b>	<b>612.4</b>
Circular Random	<b>944.8</b>	<b>758.5</b>	<b>657.1</b>	<b>597.2</b>	<b>560.1</b>	<b>536.5</b>	<b>510.3</b>
Coastal / Long Distance	<b>1127.4</b>	<b>859.7</b>	<b>713.7</b>	<b>619.8</b>	<b>568.9</b>	<b>532.6</b>	<b>482.4</b>
Non Spinnaker	<b>1032.5</b>	<b>818.6</b>	<b>699.3</b>	<b>627.1</b>	<b>581.6</b>	<b>552.7</b>	<b>521.6</b>

<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>44.6°</b>	<b>42.8°</b>	<b>41.6°</b>	<b>41.3°</b>	<b>40.7°</b>	<b>40.1°</b>	<b>40.5°</b>
Beat VMG	<b>2.92</b>	<b>3.55</b>	<b>4.03</b>	<b>4.45</b>	<b>4.77</b>	<b>4.91</b>	<b>4.89</b>
52°	<b>4.52</b>	<b>5.39</b>	<b>6.07</b>	<b>6.61</b>	<b>6.92</b>	<b>7.07</b>	<b>7.12</b>
60°	<b>4.81</b>	<b>5.69</b>	<b>6.39</b>	<b>6.84</b>	<b>7.11</b>	<b>7.27</b>	<b>7.36</b>
75°	<b>5.04</b>	<b>6.02</b>	<b>6.74</b>	<b>7.05</b>	<b>7.27</b>	<b>7.46</b>	<b>7.73</b>
90°	<b>5.38</b>	<b>6.45</b>	<b>7.09</b>	<b>7.41</b>	<b>7.56</b>	<b>7.65</b>	<b>7.96</b>
110°	<b>5.42</b>	<b>6.54</b>	<b>7.15</b>	<b>7.51</b>	<b>7.85</b>	<b>8.18</b>	<b>8.56</b>
120°	<b>5.24</b>	<b>6.35</b>	<b>7.05</b>	<b>7.43</b>	<b>7.78</b>	<b>8.16</b>	<b>8.91</b>
135°	<b>4.71</b>	<b>5.78</b>	<b>6.67</b>	<b>7.18</b>	<b>7.52</b>	<b>7.86</b>	<b>8.62</b>
150°	<b>4.00</b>	<b>5.03</b>	<b>5.88</b>	<b>6.57</b>	<b>7.00</b>	<b>7.29</b>	<b>7.81</b>
Run VMG	<b>3.46</b>	<b>4.35</b>	<b>5.10</b>	<b>5.69</b>	<b>6.08</b>	<b>6.67</b>	<b>7.36</b>
Gybe Angles	<b>146.0°</b>	<b>147.5°</b>	<b>147.0°</b>	<b>148.0°</b>	<b>174.0°</b>	<b>176.0°</b>	<b>178.0°</b>