

|                                                                                                                                                                                                                                                        |              |                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BOAT</b>                                                                                                                                                                                                                                            | <b>GPH</b>   | <b>HULL</b>                                                                                                                                                                                                                                                                                                                     |
| Name <b>GLADIATOR</b><br>Sail Nr <b>GBR11152X</b>                                                                                                                                                                                                      | <b>429.3</b> | Length Overall <b>15.850m</b><br>Maximum Beam <b>4.434m</b><br>Displacement <b>6,931kg</b><br>Draft <b>3.494m</b><br>IMS Reg. Division <b>Performance</b><br>Dynamic Allowance <b>0.000%</b><br>Fwd Accommodation <b>No</b><br>Hull Construction <b>Carbon, Aramid, Light</b><br>Carbon Rudder <b>Yes</b><br>Crew Arm Extension |
| <b>GENERAL</b>                                                                                                                                                                                                                                         |              | IMSL <b>15.546m</b> VCGD <b>-1.534m</b> Sink <b>31.93kg/mm</b><br>RL <b>17.400m</b> VCGM <b>-1.506m</b> WS <b>40.76m<sup>2</sup></b><br>LSM0 <b>15.049m</b> Displacement/Length ratio <b>2.0336</b>                                                                                                                             |
| Class <b>TRANSPAC 52</b><br>Designer <b>JV</b><br>Builder <b>PERSICO</b><br>Series <b>03/2015</b><br>Age <b>05/2015</b><br>Age Allowance <b>0.098%</b><br>Offset File <b>gladiator.off - 05/04/2017 07:11:06</b><br>Measurement by - <b>21/05/2016</b> |              |                                                                                                                                                                                                                                                                                                                                 |



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| <b>SCORING OPTIONS</b> |                                |               |               |                           |               |               |
|------------------------|--------------------------------|---------------|---------------|---------------------------|---------------|---------------|
|                        | <b>COASTAL / LONG DISTANCE</b> |               |               | <b>WINDWARD / LEEWARD</b> |               |               |
| Time on Distance       | <b>416.5</b>                   |               |               | <b>473.1</b>              |               |               |
| Time on Time           | <b>1.4405</b>                  |               |               | <b>1.4269</b>             |               |               |
| Triple Number          | Low                            | Medium        | High          | Low                       | Medium        | High          |
| Time on Distance       | <b>498.2</b>                   | <b>381.5</b>  | <b>320.4</b>  | <b>647.7</b>              | <b>481.3</b>  | <b>400.7</b>  |
| Time on Time           | <b>1.3548</b>                  | <b>1.7694</b> | <b>2.1070</b> | <b>1.0422</b>             | <b>1.4024</b> | <b>1.6847</b> |

| <b>TIME ALLOWANCES</b>  |              |              |              |              |              |              |              |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity           | 6 kt         | 8 kt         | 10 kt        | 12 kt        | 14 kt        | 16 kt        | 20 kt        |
| Beat VMG                | <b>716.8</b> | <b>579.8</b> | <b>529.3</b> | <b>506.2</b> | <b>492.8</b> | <b>477.9</b> | <b>468.6</b> |
| 52°                     | <b>463.0</b> | <b>393.0</b> | <b>371.6</b> | <b>358.0</b> | <b>348.3</b> | <b>337.8</b> | <b>323.1</b> |
| 60°                     | <b>432.7</b> | <b>379.7</b> | <b>354.4</b> | <b>339.1</b> | <b>329.0</b> | <b>320.5</b> | <b>302.6</b> |
| 75°                     | <b>413.5</b> | <b>368.2</b> | <b>332.9</b> | <b>312.9</b> | <b>300.7</b> | <b>292.1</b> | <b>270.8</b> |
| 90°                     | <b>418.5</b> | <b>371.6</b> | <b>331.5</b> | <b>299.3</b> | <b>279.3</b> | <b>266.8</b> | <b>250.7</b> |
| 110°                    | <b>450.6</b> | <b>377.9</b> | <b>342.3</b> | <b>314.1</b> | <b>289.4</b> | <b>259.9</b> | <b>222.6</b> |
| 120°                    | <b>467.0</b> | <b>384.1</b> | <b>338.2</b> | <b>309.3</b> | <b>286.9</b> | <b>261.8</b> | <b>226.2</b> |
| 135°                    | <b>525.8</b> | <b>410.1</b> | <b>363.8</b> | <b>320.6</b> | <b>281.7</b> | <b>253.4</b> | <b>219.6</b> |
| 150°                    | <b>632.4</b> | <b>488.3</b> | <b>414.3</b> | <b>368.5</b> | <b>333.2</b> | <b>293.2</b> | <b>231.1</b> |
| Run VMG                 | <b>730.3</b> | <b>563.8</b> | <b>478.4</b> | <b>429.9</b> | <b>384.8</b> | <b>338.5</b> | <b>266.8</b> |
| <b>Selected Courses</b> |              |              |              |              |              |              |              |
| Windward / Leeward      | <b>723.6</b> | <b>571.8</b> | <b>503.8</b> | <b>468.1</b> | <b>438.8</b> | <b>408.2</b> | <b>367.7</b> |
| Circular Random         | <b>599.3</b> | <b>481.5</b> | <b>417.0</b> | <b>377.2</b> | <b>349.6</b> | <b>328.5</b> | <b>297.0</b> |
| Coastal / Long Distance | <b>724.2</b> | <b>538.6</b> | <b>452.4</b> | <b>398.8</b> | <b>364.0</b> | <b>329.9</b> | <b>279.0</b> |
| Non Spinnaker           | <b>657.3</b> | <b>524.6</b> | <b>450.9</b> | <b>405.2</b> | <b>374.2</b> | <b>351.1</b> | <b>317.8</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>43.8°</b>  | <b>41.4°</b>  | <b>38.4°</b>  | <b>36.6°</b>  | <b>35.5°</b>  | <b>34.5°</b>  | <b>34.3°</b>  |
| Beat VMG                                                 | <b>5.02</b>   | <b>6.21</b>   | <b>6.80</b>   | <b>7.11</b>   | <b>7.31</b>   | <b>7.53</b>   | <b>7.68</b>   |
| 52°                                                      | <b>7.77</b>   | <b>9.16</b>   | <b>9.69</b>   | <b>10.06</b>  | <b>10.33</b>  | <b>10.66</b>  | <b>11.14</b>  |
| 60°                                                      | <b>8.32</b>   | <b>9.48</b>   | <b>10.16</b>  | <b>10.62</b>  | <b>10.94</b>  | <b>11.23</b>  | <b>11.90</b>  |
| 75°                                                      | <b>8.71</b>   | <b>9.78</b>   | <b>10.82</b>  | <b>11.51</b>  | <b>11.97</b>  | <b>12.33</b>  | <b>13.29</b>  |
| 90°                                                      | <b>8.60</b>   | <b>9.69</b>   | <b>10.86</b>  | <b>12.03</b>  | <b>12.89</b>  | <b>13.49</b>  | <b>14.36</b>  |
| 110°                                                     | <b>7.99</b>   | <b>9.53</b>   | <b>10.52</b>  | <b>11.46</b>  | <b>12.44</b>  | <b>13.85</b>  | <b>16.18</b>  |
| 120°                                                     | <b>7.71</b>   | <b>9.37</b>   | <b>10.65</b>  | <b>11.64</b>  | <b>12.55</b>  | <b>13.75</b>  | <b>15.91</b>  |
| 135°                                                     | <b>6.85</b>   | <b>8.78</b>   | <b>9.90</b>   | <b>11.23</b>  | <b>12.78</b>  | <b>14.21</b>  | <b>16.39</b>  |
| 150°                                                     | <b>5.69</b>   | <b>7.37</b>   | <b>8.69</b>   | <b>9.77</b>   | <b>10.80</b>  | <b>12.28</b>  | <b>15.58</b>  |
| Run VMG                                                  | <b>4.93</b>   | <b>6.39</b>   | <b>7.53</b>   | <b>8.37</b>   | <b>9.36</b>   | <b>10.63</b>  | <b>13.49</b>  |
| Gybe Angles                                              | <b>140.7°</b> | <b>140.6°</b> | <b>146.7°</b> | <b>151.3°</b> | <b>143.2°</b> | <b>142.4°</b> | <b>143.9°</b> |

**Certificate**

Number **US6157**  
ORC Ref **USAX01DVOOE**  
Issued On **11/07/2018**  
VPP Ver. **2018 1.00**  
Valid until **31/12/2018**

**Crew Weight**

Default **1,233kg**  
Maximum **1,300kg**  
Minimum\* **975kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

|              |              |               |
|--------------|--------------|---------------|
|              | ToD          | ToT           |
| Non Spin GPH | <b>464.9</b> | <b>1.2906</b> |
| Non Spin OSN | <b>454.9</b> | <b>1.3190</b> |

**Sails Limitations**

|           |            |
|-----------|------------|
| Headsails | Spinnakers |
| <b>7</b>  | <b>5</b>   |

**Class Division Length**

CDL = **16.474**

**Storm Sails Areas**

|                      |              |
|----------------------|--------------|
| Heavy Weather Jib    | <b>52.50</b> |
| Storm Jib (JL=12.82) | <b>19.45</b> |
| Storm Trysail        | <b>25.35</b> |

**Owner**

|                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BOAT</b><br>Name <b>GLADIATOR</b> Sail Nr <b>GBR11152X</b><br>File <b>US6157</b> Data in <b>meters/kilograms</b>                                                                                                                                                                                                                                          |  | <b>INCLINING TEST AND FREEBOARDS</b><br>Inclining Test <b>Boom Inclining</b> LCDF<br>Flotation date <b>21/07/2016</b> SG <b>1.0260</b>                                                                                                                                                                                    |  | <br><b>ORC</b><br>Offshore Racing Congress<br>World leader in rating technology<br><b>2018</b><br><b>IMS Measurement Certificate</b> |
| <b>RIG</b><br>Forestay Tension <b>Aft</b> Spreaders <b>3</b><br>Inner Stay <b>None Fitted</b> Runners <b>1</b><br>Carbon Mast <b>Yes</b> Jumper Struts <b>None</b><br>Taper Hollows      Jib Furler <b>No</b><br>Fiber Rigging <b>No</b> Main Furler <b>No</b><br>Lenticular Rigging <b>No</b> Without Backstay <b>No</b><br>Articulated Bowsprit <b>No</b>  |  | FFM <b>0.393</b> FF <b>0.394</b> SFFP <b>0.005</b><br>FAM <b>0.058</b> FA <b>0.058</b> SAFF <b>15.860</b><br>W1 <b>179.9</b> PD1 <b>237.8</b> WD <b>6.870</b><br>W2 <b>179.9</b> PD2 <b>237.5</b> GSA <b>1.0</b><br>W3 <b>179.9</b> PD3 <b>237.4</b> RSA <b>1.0</b><br>W4 <b>179.9</b> PD4 <b>237.7</b> PLM <b>9000.0</b> |  |                                                                                                                                                                                                                         |
| P <b>20.400</b> E <b>7.100</b> MDT1 <b>0.131</b> MW <b>0.279</b><br>IG <b>19.720</b> J <b>6.200</b> MDL1 <b>0.298</b> GO <b>0.279</b><br>ISP <b>22.400</b> SFJ <b>0.600</b> MDT2 <b>0.100</b> BD <b>0.350</b><br>BAS <b>2.130</b> SPL <b>0.000</b> MDL2 <b>0.153</b> MWT <b>235.00</b><br>FSP <b>0.072</b> TPS <b>9.000</b> TL <b>3.230</b> MCG <b>7.220</b> |  | LCF from stem on CL / on sheer <b>8.767 / 9.012</b><br>Maximum beam station from stem <b>13.260</b><br>RM Measured <b>409.6kg-m</b><br>RM Default <b>346.2kg-m</b><br>Limit of positive stability / Stab.Index <b>146.4° / 145.1</b><br>Freeboard at mast at 6.800 <b>1.228</b>                                           |  |                                                                                                                                                                                                                         |
| <b>MIZZEN RIG AND SAILS</b><br><br><div style="text-align: center;">N/A</div>                                                                                                                                                                                                                                                                                |  | <b>PROPELLER</b><br>Installation <b>Strut</b> PRD <b>0.400</b><br>Type <b>Folding 2 blades</b> PBW <b>0.140</b><br>Twin Screw      PIPA <b>0.0038</b><br>ST1 <b>0.042</b> ST3 <b>0.180</b> ST5 <b>0.300</b><br>ST2 <b>0.180</b> ST4 <b>0.112</b> EDL <b>0.900</b>                                                         |  |                                                                                                                                                                                                                         |
| <b>COMMENTS</b><br><br><div style="text-align: center;">N/A</div>                                                                                                                                                                                                                                                                                            |  | <b>MOVABLE BALLAST</b><br><br><div style="text-align: center;">N/A</div>                                                                                                                                                                                                                                                  |  | <br><b>Invalid for racing</b><br><b>ORC</b><br>World Leader In Rating Technology                                                     |
|                                                                                                                                                                                                                                                                                                                                                              |  | <b>BILGEBOARD</b><br>BS      BT      BA<br>BF      BX<br>BC      BY                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                         |

| SAILS (Maximum Areas)      |       |       |       |       |       |        |          |                                                    |  |
|----------------------------|-------|-------|-------|-------|-------|--------|----------|----------------------------------------------------|--|
| Mainsail                   | MHB   | MUW   | MTW   | MHW   | MQW   | Area   | Area (r) | Formula                                            |  |
|                            | 1.990 | 2.62  | 3.56  | 4.99  | 6.13  | 97.65  | 100.38   | P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB) |  |
| Symmetric<br>Not Available |       |       |       |       |       |        |          |                                                    |  |
| Asymmetric on centerline   | SLU   | SLE   | SL    | SHW   | SFL   |        |          |                                                    |  |
|                            | 25.36 | 21.60 | 23.48 | 13.80 | 13.75 | 269.82 |          | AS · (SFL + 4·SHW) / 6                             |  |

| HEADSAILS                                                                 |      |      |     |     |      |       |       |     |     |           |          |         |
|---------------------------------------------------------------------------|------|------|-----|-----|------|-------|-------|-----|-----|-----------|----------|---------|
| 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 |
| 0.97                                                                      | 1.73 | 3.18 |     |     | 6.24 | 20.18 | 64.53 | Y   |     |           |          |         |

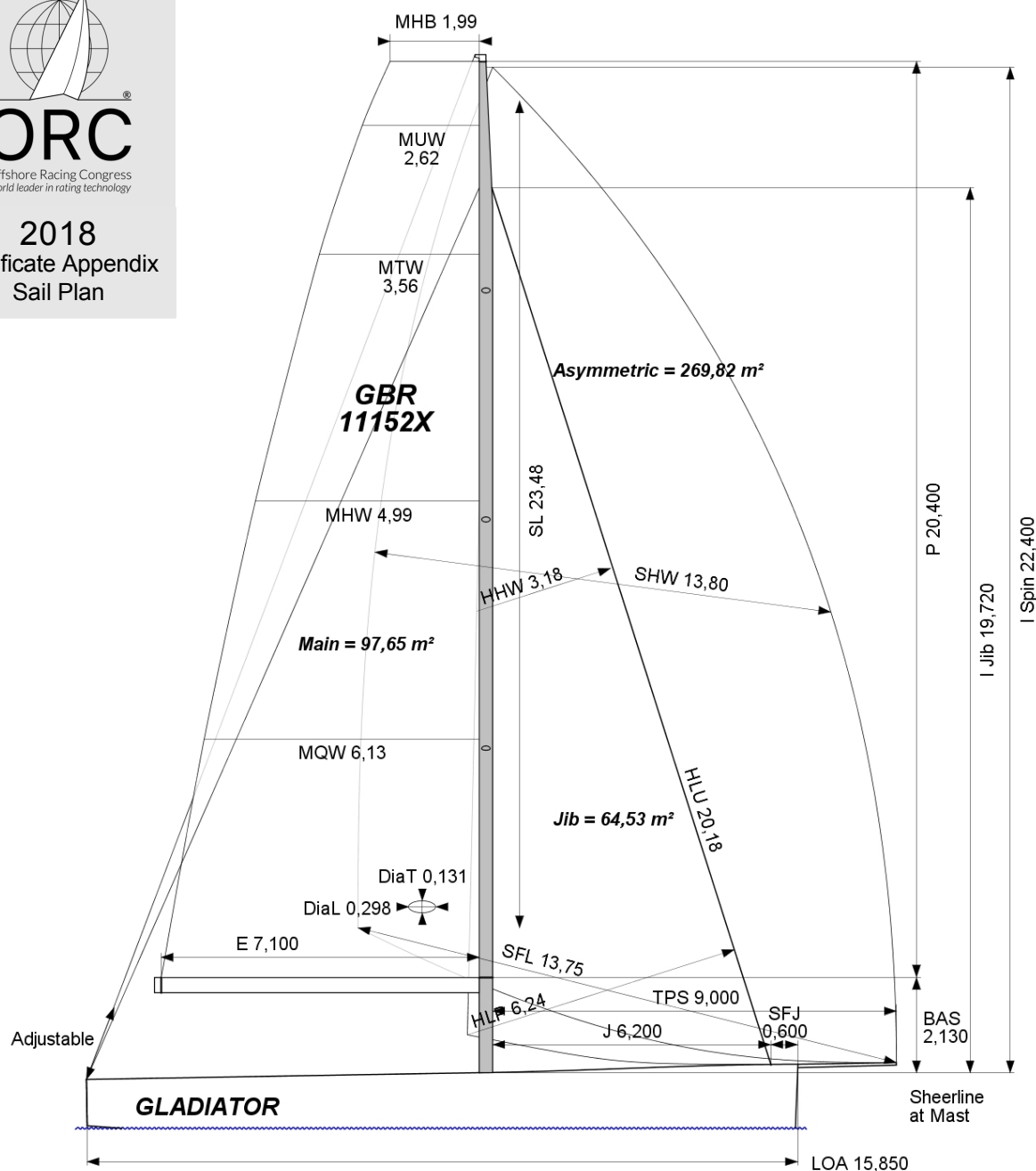
| MEASUREMENT INVENTORY                                                                |  |  |  |  | MEASUREMENT INVENTORY                                                                                                  |  |  |  |  |
|--------------------------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Measurer<br>Date<br>Comment                                                          |  |  |  |  | Id    Item    Tank Use    Tank Type    Capcty    Dist.    VCG    Condtn    Description<br>Tank    7.00    0.00    48.9 |  |  |  |  |
| Id    Item    Weight    Distance    VCG    Description<br>a    Anchor    0.0    0.00 |  |  |  |  | Id    Item    Weight    Distance    VCG    Description                                                                 |  |  |  |  |
| Id    Item    Weight    Description                                                  |  |  |  |  |                                                                                                                        |  |  |  |  |



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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       |
|---------|------|------|------|------|------|-------|----------|-----------|-------------|----------|---------------|
| 1951268 | 1.99 | 2.62 | 3.56 | 4.99 | 6.13 | 97.66 |          |           |             |          | P=20.4, E=7.1 |

**HEADSAILS (1)**

| Id      | HHB | HUW  | HTW  | HHW  | HQW | HLP  | HLU   | Ovrlp | Area  | Btn | Fly | Measurer | Meas.Date | Manufacture | Material | Comment |
|---------|-----|------|------|------|-----|------|-------|-------|-------|-----|-----|----------|-----------|-------------|----------|---------|
| 1951276 |     | 0.97 | 1.73 | 3.18 |     | 6.24 | 20.18 | 101%  | 64.53 | Y   |     |          |           |             |          |         |

**SYMMETRIC SPINNAKERS (0)**

| Id | SLU | SLE | SL | SHW | SFL | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-----|-----|----|-----|-----|------|----------|-----------|-------------|----------|---------|
|----|-----|-----|----|-----|-----|------|----------|-----------|-------------|----------|---------|

**ASYMMETRIC SPINNAKERS (1)**

| Id      | SLU   | SLE   | SL    | SHW   | SFL   | Area   | Kind | Measurer | Meas.Date | Manufacture | Material | Comment |
|---------|-------|-------|-------|-------|-------|--------|------|----------|-----------|-------------|----------|---------|
| 1951284 | 25.36 | 21.60 | 23.48 | 13.80 | 13.75 | 269.83 | asym |          |           |             |          |         |