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|--|
| <b>BOAT</b>                                    |
| Name <b>EXTREME</b><br>Sail Nr <b>LTU 1620</b> |

|              |
|--------------|
| <b>GPH</b>   |
| <b>622.2</b> |

|  |
|--|
| <b>HULL</b>  |
| Length Overall <b>10.600m</b>                                    |
| Maximum Beam <b>3.250m</b>                                       |
| Displacement <b>5,098kg</b>                                      |
| Draft <b>2.208m</b>  |
| IMS Reg. Division <b>Cruiser/Racer</b>                           |
| Dynamic Allowance <b>0.087%</b>                                  |
| Fwd Accommodation <b>Yes</b>                                     |
| Hull Construction <b>Cored</b>                                   |
| Carbon Rudder <b>No</b>  |
| Crew Arm Extension   |
| IMSL <b>9.656m</b> VCGD <b>0.109m</b> Sink <b>18.17kg/mm</b>     |
| RL <b>8.741m</b> VCGM <b>0.064m</b> WS <b>23.97m<sup>2</sup></b> |
| LSM0 <b>9.551m</b> Displacement/Length ratio <b>5.8513</b>       |



World Leader in Rating Technology

**2016**  
ORC International  
Certificate

|  |
|--|
| <b>GENERAL</b>                                   |
| Class <b>X-35 OD</b>                             |
| Designer <b>Jeppessen</b>                        |
| Builder <b>X Yachts</b>                          |
| Series <b>09/2005</b>                            |
| Age <b>05/2008</b>                               |
| Age Allowance <b>0.357%</b>                      |
| Offset File <b>X35.off - 29/05/2006 11:52:00</b> |
| Measurement by <b>G. Misiunas - 03/05/2015</b>   |

**Rating Office**

Offshore  
Racing  
Congress



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|                        |                         |               |               |                    |               |               |
|------------------------|-------------------------|---------------|---------------|--------------------|---------------|---------------|
| <b>SCORING OPTIONS</b> | <b>OFFSHORE</b>         |               |               | <b>INSHORE</b>     |               |               |
|                        | COASTAL / LONG DISTANCE |               |               | WINDWARD / LEEWARD |               |               |
| Time On Distance       | <b>604.8</b>            |               |               | <b>673.4</b>       |               |               |
| Time On Time           | <b>0.9921</b>           |               |               | <b>1.0023</b>      |               |               |
| Performance Line       | PLT                     | PLD           |               | PLT                | PLD           |               |
|                        | <b>0.681</b>            | <b>43.3</b>   |               | <b>0.847</b>       | <b>203.4</b>  |               |
| Triple Number          | Low                     | Medium        | High          | Low                | Medium        | High          |
|                        | <b>0.9438</b>           | <b>1.2256</b> | <b>1.3812</b> | <b>0.7286</b>      | <b>0.9965</b> | <b>1.1593</b> |

|                        |               |              |              |              |              |              |              |       |
|------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| <b>TIME ALLOWANCES</b> |               | 6 kt         | 8 kt         | 10 kt        | 12 kt        | 14 kt        | 16 kt        | 20 kt |
| Wind Velocity          |               |              |              |              |              |              |              |       |
| Beat VMG               | <b>1057.1</b> | <b>878.3</b> | <b>769.5</b> | <b>714.2</b> | <b>691.5</b> | <b>679.9</b> | <b>663.3</b> |       |
| 52°                    | <b>689.2</b>  | <b>579.3</b> | <b>521.4</b> | <b>499.3</b> | <b>491.6</b> | <b>487.5</b> | <b>480.8</b> |       |
| 60°                    | <b>648.1</b>  | <b>549.0</b> | <b>505.8</b> | <b>486.7</b> | <b>478.1</b> | <b>473.5</b> | <b>467.7</b> |       |
| 75°                    | <b>614.1</b>  | <b>527.9</b> | <b>494.8</b> | <b>474.9</b> | <b>459.5</b> | <b>450.2</b> | <b>443.0</b> |       |
| 90°                    | <b>616.9</b>  | <b>529.6</b> | <b>492.0</b> | <b>476.1</b> | <b>457.9</b> | <b>439.9</b> | <b>417.4</b> |       |
| 110°                   | <b>635.6</b>  | <b>527.7</b> | <b>487.8</b> | <b>461.6</b> | <b>442.5</b> | <b>430.3</b> | <b>410.0</b> |       |
| 120°                   | <b>654.4</b>  | <b>539.8</b> | <b>494.0</b> | <b>467.6</b> | <b>441.2</b> | <b>416.5</b> | <b>392.1</b> |       |
| 135°                   | <b>722.3</b>  | <b>587.6</b> | <b>516.8</b> | <b>485.4</b> | <b>461.2</b> | <b>436.1</b> | <b>386.6</b> |       |
| 150°                   | <b>853.9</b>  | <b>679.2</b> | <b>575.1</b> | <b>515.0</b> | <b>486.0</b> | <b>463.4</b> | <b>417.3</b> |       |
| Run VMG                | <b>986.0</b>  | <b>784.2</b> | <b>663.3</b> | <b>585.0</b> | <b>530.7</b> | <b>496.0</b> | <b>451.2</b> |       |

|                               |
|-------------------------------|
| <b>Certificate</b>            |
| Number <b>LT1620</b>          |
| ORC Ref <b>ltu00000350</b>    |
| Issued On <b>31/05/2016</b>   |
| VPP Ver. <b>2016 1.01</b>     |
| Valid until <b>31/12/2016</b> |

|                         |               |              |              |              |              |              |              |       |
|-------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| <b>Selected Courses</b> |               | 6 kt         | 8 kt         | 10 kt        | 12 kt        | 14 kt        | 16 kt        | 20 kt |
| Windward / Leeward      | <b>1021.5</b> | <b>831.3</b> | <b>716.4</b> | <b>649.6</b> | <b>611.1</b> | <b>587.9</b> | <b>557.3</b> |       |
| Circular Random         | <b>857.8</b>  | <b>692.5</b> | <b>603.6</b> | <b>551.8</b> | <b>519.8</b> | <b>498.5</b> | <b>470.3</b> |       |
| Ocean for PCS           | <b>1051.1</b> | <b>812.1</b> | <b>677.1</b> | <b>594.6</b> | <b>541.1</b> | <b>503.8</b> | <b>452.4</b> |       |
| Non Spinnaker           | <b>912.1</b>  | <b>730.9</b> | <b>632.3</b> | <b>574.1</b> | <b>537.9</b> | <b>514.0</b> | <b>483.3</b> |       |

|                          |
|--------------------------|
| <b>Crew Weight</b>       |
| Declared <b>700kg</b>    |
| Default* <b>645kg</b>    |
| Non Manual Pwr <b>No</b> |

|                                  |
|----------------------------------|
| <b>Special Scoring</b>           |
| ToD ToT                          |
| Non Spin GPH <b>652.5 0.9195</b> |
| Non Spin OSN <b>633.5 0.9472</b> |
| N/S Perf. Line <b>16.1 0.608</b> |

|  |               |               |               |               |               |               |               |       |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| <b>Velocity Prediction in Knots for True Wind Speeds</b> |               | 6 kt          | 8 kt          | 10 kt         | 12 kt         | 14 kt         | 16 kt         | 20 kt |
| Wind Velocity  |               |               |               |               |               |               |               |       |
| Beat Angles  | <b>43.3°</b>  | <b>42.0°</b>  | <b>41.7°</b>  | <b>39.6°</b>  | <b>38.6°</b>  | <b>38.0°</b>  | <b>37.4°</b>  |       |
| Beat VMG   | <b>3.41</b>   | <b>4.10</b>   | <b>4.68</b>   | <b>5.04</b>   | <b>5.21</b>   | <b>5.30</b>   | <b>5.43</b>   |       |
| 52°  | <b>5.22</b>   | <b>6.21</b>   | <b>6.90</b>   | <b>7.21</b>   | <b>7.32</b>   | <b>7.38</b>   | <b>7.49</b>   |       |
| 60°  | <b>5.55</b>   | <b>6.56</b>   | <b>7.12</b>   | <b>7.40</b>   | <b>7.53</b>   | <b>7.60</b>   | <b>7.70</b>   |       |
| 75°  | <b>5.86</b>   | <b>6.82</b>   | <b>7.28</b>   | <b>7.58</b>   | <b>7.83</b>   | <b>8.00</b>   | <b>8.13</b>   |       |
| 90°  | <b>5.84</b>   | <b>6.80</b>   | <b>7.32</b>   | <b>7.56</b>   | <b>7.86</b>   | <b>8.18</b>   | <b>8.62</b>   |       |
| 110°   | <b>5.66</b>   | <b>6.82</b>   | <b>7.38</b>   | <b>7.80</b>   | <b>8.14</b>   | <b>8.37</b>   | <b>8.78</b>   |       |
| 120°   | <b>5.50</b>   | <b>6.67</b>   | <b>7.29</b>   | <b>7.70</b>   | <b>8.16</b>   | <b>8.64</b>   | <b>9.18</b>   |       |
| 135°   | <b>4.98</b>   | <b>6.13</b>   | <b>6.97</b>   | <b>7.42</b>   | <b>7.81</b>   | <b>8.26</b>   | <b>9.31</b>   |       |
| 150°   | <b>4.22</b>   | <b>5.30</b>   | <b>6.26</b>   | <b>6.99</b>   | <b>7.41</b>   | <b>7.77</b>   | <b>8.63</b>   |       |
| Run VMG  | <b>3.65</b>   | <b>4.59</b>   | <b>5.43</b>   | <b>6.15</b>   | <b>6.78</b>   | <b>7.26</b>   | <b>7.98</b>   |       |
| Gybe Angles  | <b>145.1°</b> | <b>149.7°</b> | <b>151.2°</b> | <b>157.7°</b> | <b>180.0°</b> | <b>180.0°</b> | <b>180.0°</b> |       |

|                          |
|--------------------------|
| <b>Sails Limitations</b> |
| Headsails <b>6</b>       |
| Spinnakers <b>3</b>      |

|                              |
|------------------------------|
| <b>Class Division Length</b> |
| CDL = <b>9.199</b>           |

|                                  |
|----------------------------------|
| <b>Storm Sails Areas</b>         |
| Heavy Weather Jib <b>28.80</b>   |
| Storm Jib (JL=9.49) <b>10.66</b> |
| Storm Triesail <b>10.58</b>      |

|              |
|--------------|
| <b>Owner</b> |
|              |

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>BOAT</b>                 |                                 |
| Name <b>EXTREME</b>         | Sail Nr <b>LTU 1620</b>         |
| File <b>Extreme LTU1620</b> | Data in <b>meters/kilograms</b> |

|  |                 |                       |
|--|-----------------|-----------------------|
| <b>INCLINING TEST AND FREEBOARDS</b>     |                 |                       |
| Inclining Test <b>Current Inclining</b>  |                 |                       |
| Flotation date <b>03/05/2015</b>         | SG              | <b>1.0000</b>         |
| FFM <b>1.262</b>                         | FF <b>1.271</b> | SFFP <b>0.075</b>     |
| FAM <b>0.955</b>                         | FA <b>0.961</b> | SAFP <b>10.275</b>    |
| W1 <b>131.60</b>                         | PD1 <b>88.0</b> | WD <b>4.120</b>       |
| W2 <b>75.700</b>                         | PD2 <b>46.3</b> | GSA <b>6.0</b>        |
| W3 <b>131.60</b>                         | PD3 <b>80.3</b> | RSA <b>6.0</b>        |
| W4 <b>75.700</b>                         | PD4 <b>56.0</b> | PLM <b>2000.0</b>     |
| LCF from stem on CL / on sheer           |                 | <b>5.984 / 6.180</b>  |
| Maximum beam station from stem           |                 | <b>7.300</b>          |
| RM Measured                              |                 | <b>112.5kg·m</b>      |
| RM Default                               |                 | <b>126.3kg·m</b>      |
| Limit of positive stability / Stab.Index |                 | <b>113.5° / 116.2</b> |
| Freeboard at mast at 4.185               |                 | <b>1.068</b>          |

|                                |                            |                   |                   |  |
|--------------------------------|----------------------------|-------------------|-------------------|--|
| <b>RIG</b>                     |                            |                   |                   |  |
| Forestay Tension <b>Aft</b>    | Spreaders <b>2</b>         |                   |                   |  |
| Inner Stay <b>None Fitted</b>  | Runners <b>0</b>           |                   |                   |  |
| Carbon Mast <b>No</b>          | Jumper Struts <b>None</b>  |                   |                   |  |
| Taper Hollows <b>No</b>        | Jib Furler <b>No</b>       |                   |                   |  |
| Fiber Rigging <b>No</b>        | Main Furler <b>No</b>      |                   |                   |  |
| Lenticular Rigging <b>No</b>   | Without Backstay <b>No</b> |                   |                   |  |
| Articulated Bowsprit <b>No</b> |                            |                   |                   |  |
| P <b>13.290</b>                | E <b>4.550</b>             | MDT1 <b>0.115</b> | MW <b>0.174</b>   |  |
| IG <b>14.500</b>               | J <b>4.185</b>             | MDL1 <b>0.175</b> | GO <b>0.204</b>   |  |
| ISP <b>14.530</b>              | SFJ <b>0.000</b>           | MDT2 <b>0.115</b> | BD <b>0.220</b>   |  |
| BAS <b>1.745</b>               | SPL <b>4.170</b>           | MDL2 <b>0.125</b> | MWT <b>156.00</b> |  |
| FSP <b>0.070</b>               | TPS                        | TL <b>1.300</b>   | MCG <b>4.600</b>  |  |

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

|                              |                  |                  |
|------------------------------|------------------|------------------|
| <b>PROPELLER</b>             |                  |                  |
| Installation <b>Strut</b>    | PRD              | <b>0.420</b>     |
| Type <b>Folding 2 blades</b> | PBW              | <b>0.128</b>     |
| Twin Screw <b>No</b>         | PIPA             | <b>0.0033</b>    |
| ST1 <b>0.042</b>             | ST3 <b>0.180</b> | ST5 <b>0.255</b> |
| ST2 <b>0.180</b>             | ST4 <b>0.112</b> | EDL <b>2.390</b> |


|                                  |
|----------------------------------|
| <b>COMMENTS</b>                  |
| Fixed additional ballast 350 kg. |

|                         |  |
|-------------------------|--|
| <b>MOVEABLE BALLAST</b> |  |
| N/A                     |  |

|                    |  |
|--------------------|--|
| <b>CENTERBOARD</b> |  |
| N/A                |  |

|                              |               |       |       |      |      |       |          |   |  |
|------------------------------|---------------|-------|-------|------|------|-------|----------|---|--|
| <b>SAILS (Maximum Areas)</b> |               |       |       |      |      |       |          |   |  |
| Mainsail                     | MHB           | MUW   | MTW   | MHW  | MQW  | Area  | Area (r) | Formula   |  |
|                              | 0.350         | 1.08  | 1.80  | 2.97 | 3.84 | 36.76 | 37.53    | P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB) |  |
| Symmetric                    | SLU           | SLE   | SL    | SHW  | SFL  | 91.17 |          | SL · (SFL + 4·SHW) / 6                              |  |
|                              | 14.35         | 14.35 | 14.35 | 7.69 | 7.36 |       |          |   |  |
| Asymmetric                   | Not Available |       |       |      |      |       |          |   |  |

|   |      |      |      |      |      |       |       |     |     |            |          |         |
|---|------|------|------|------|------|-------|-------|-----|-----|------------|----------|---------|
| <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 | Fly | Meas.Date  | Material | Comment |
| 0.13  | 0.67 | 1.25 | 2.31 | 3.36 | 4.45 | 14.56 | 33.38 | Y   |     | 26/04/2016 | Twaron   |         |
| 0.11  | 0.67 | 1.24 | 2.32 | 3.36 | 4.42 | 14.49 | 33.14 | Y   |     | 26/04/2016 | Twaron   |         |
| 0.10  | 0.46 | 0.90 | 1.79 | 2.78 | 3.88 | 14.07 | 26.29 | Y   |     | 03/05/2015 | Unknow   |         |




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**2016**

IMS Measurement Certificate

**Certificate**

Number **LT1620**  
 ORC Ref **Itu00000350**  
 Issued On **31/05/2016**  
 VPP Ver. **2016 1.01**  
 Valid until **31/12/2016**

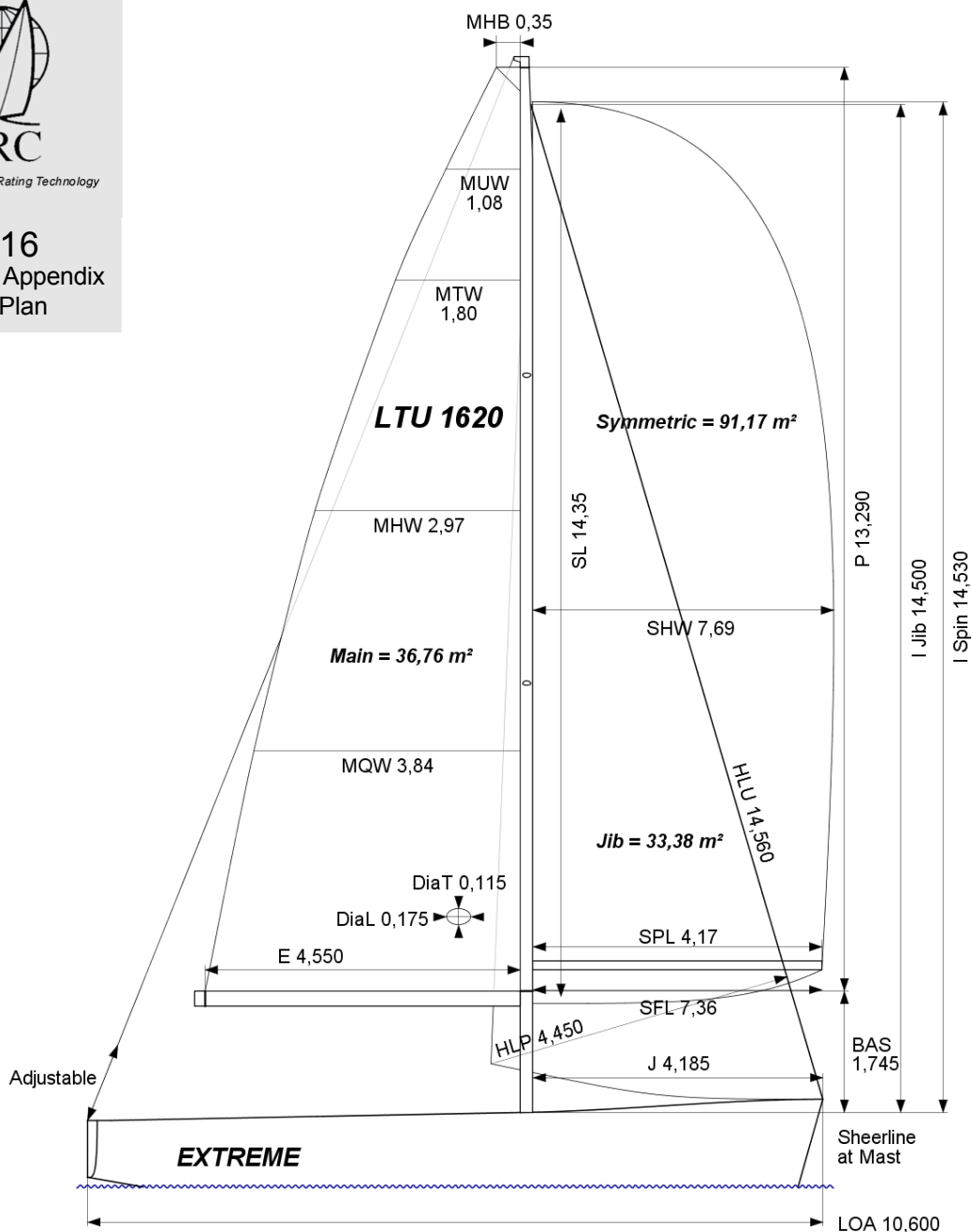


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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

| Id | MHB   | MUW  | MTW  | MHW  | MQW  | Area  | Measurer   | Meas.Date  | Manufacture | Material | Comment |
|----|-------|------|------|------|------|-------|------------|------------|-------------|----------|---------|
| 1  | 0.350 | 1.08 | 1.80 | 2.97 | 3.84 | 36.76 | SLO03 Gale | 26/04/2016 | One Sails   | Twaron   |         |

**HEADSAILS**

| Id | HHB  | HUW  | HTW  | HHW  | HQW  | HLP  | HLU   | Ovrlp | Area  | Btn | Fly | Measurer | Meas.Date  | Manufacture | Material | Comment |
|----|------|------|------|------|------|------|-------|-------|-------|-----|-----|----------|------------|-------------|----------|---------|
| 2  | 0.13 | 0.67 | 1.25 | 2.31 | 3.36 | 4.45 | 14.56 | 106%  | 33.38 | Y   |     | SLO03    | 26/04/2016 | One Sails   | Twaron   |         |
| 1  | 0.11 | 0.67 | 1.24 | 2.32 | 3.36 | 4.42 | 14.49 | 106%  | 33.14 | Y   |     | SLO03    | 26/04/2016 | One Sails   | Twaron   |         |
| J7 | 0.10 | 0.46 | 0.90 | 1.79 | 2.78 | 3.88 | 14.07 | 93%   | 26.29 | Y   |     | G.       | 03/05/2015 |             | Unknow   |         |

**SYMMETRIC SPINNAKERS**

| Id | SLU   | SLE   | SL    | SHW  | SFL  | Area  | Measurer   | Meas.Date  | Manufacture | Material | Comment |
|----|-------|-------|-------|------|------|-------|------------|------------|-------------|----------|---------|
| 1  | 14.35 | 14.35 | 14.35 | 7.69 | 7.36 | 91.17 | SLO03 Gale | 26/04/2016 | One Sails   | Nylon    |         |
| 2  | 13.90 | 13.90 | 13.90 | 5.90 | 6.89 | 70.64 | SLO03 Gale | 26/04/2016 | One Sails   | Nylon    |         |

**ASYMMETRIC SPINNAKERS**

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