

|                                                                                                                                                                                                                                                       |              |                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BOAT</b>                                                                                                                                                                                                                                           | <b>GPH</b>   | <b>HULL</b>                                                                                                                                                                                                                                                                                      |
| Name <b>BARCAROLE TRES</b><br>Sail Nr <b>ESP-6773</b>                                                                                                                                                                                                 | <b>638.7</b> | Length Overall <b>10.640m</b><br>Maximum Beam <b>3.458m</b><br>Displacement <b>5,792kg</b><br>Draft <b>2.232m</b><br>Plan Review<br>IMS Reg. Division <b>Cruiser/Racer</b><br>Dynamic Allowance <b>0.212%</b><br>Hull Construction <b>Solid</b><br>Carbon Rudder <b>No</b><br>Crew Arm Extension |
| <b>GENERAL</b>                                                                                                                                                                                                                                        |              | IMSL <b>9.632m</b> VCGD <b>0.179m</b> Sink <b>19.56kg/mm</b><br>RL <b>8.242m</b> VCGM <b>0.158m</b> WS <b>25.47m<sup>2</sup></b><br>LSM0 <b>9.574m</b> Displacement/Length ratio <b>6.6001</b>                                                                                                   |
| Class <b>FIRST 36.7</b><br>Designer <b>B.FARR</b><br>Builder <b>BENETEAU</b><br>Series <b>10/2001</b><br>Age <b>04/2002</b><br>Age Allowance <b>0.487%</b><br>Offset File <b>F196.OFF - 15/01/2015 23:58:58</b><br>Measurement by - <b>04/07/2005</b> |              |                                                                                                                                                                                                                                                                                                  |



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| <b>SCORING OPTIONS</b> |                                |               |               |                           |               |               |
|------------------------|--------------------------------|---------------|---------------|---------------------------|---------------|---------------|
|                        | <b>COASTAL / LONG DISTANCE</b> |               |               | <b>WINDWARD / LEEWARD</b> |               |               |
| Time on Distance       | <b>620.0</b>                   |               |               | <b>690.7</b>              |               |               |
| Time on Time           | <b>0.9677</b>                  |               |               | <b>0.9773</b>             |               |               |
| Triple Number          | Low                            | Medium        | High          | Low                       | Medium        | High          |
| Time on Distance       | <b>733.2</b>                   | <b>564.9</b>  | <b>506.5</b>  | <b>944.5</b>              | <b>694.1</b>  | <b>603.0</b>  |
| Time on Time           | <b>0.9206</b>                  | <b>1.1950</b> | <b>1.3327</b> | <b>0.7147</b>             | <b>0.9725</b> | <b>1.1194</b> |

| <b>TIME ALLOWANCES</b>  |               |              |              |              |              |              |              |
|-------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity           | 6 kt          | 8 kt         | 10 kt        | 12 kt        | 14 kt        | 16 kt        | 20 kt        |
| Beat VMG                | <b>1080.4</b> | <b>897.5</b> | <b>791.7</b> | <b>735.5</b> | <b>718.6</b> | <b>713.4</b> | <b>704.2</b> |
| 52°                     | <b>712.2</b>  | <b>602.9</b> | <b>540.9</b> | <b>515.5</b> | <b>506.9</b> | <b>503.7</b> | <b>499.8</b> |
| 60°                     | <b>675.6</b>  | <b>575.2</b> | <b>524.7</b> | <b>503.0</b> | <b>493.4</b> | <b>489.8</b> | <b>487.4</b> |
| 75°                     | <b>647.9</b>  | <b>554.8</b> | <b>513.4</b> | <b>492.8</b> | <b>479.3</b> | <b>470.4</b> | <b>464.3</b> |
| 90°                     | <b>650.6</b>  | <b>544.0</b> | <b>501.4</b> | <b>487.5</b> | <b>474.2</b> | <b>459.7</b> | <b>438.7</b> |
| 110°                    | <b>644.5</b>  | <b>536.8</b> | <b>494.6</b> | <b>471.1</b> | <b>452.2</b> | <b>441.1</b> | <b>423.6</b> |
| 120°                    | <b>663.6</b>  | <b>549.1</b> | <b>500.3</b> | <b>474.8</b> | <b>452.2</b> | <b>430.9</b> | <b>406.2</b> |
| 135°                    | <b>733.9</b>  | <b>599.4</b> | <b>524.7</b> | <b>491.5</b> | <b>468.5</b> | <b>445.6</b> | <b>402.9</b> |
| 150°                    | <b>868.0</b>  | <b>690.9</b> | <b>586.3</b> | <b>522.8</b> | <b>492.1</b> | <b>470.4</b> | <b>428.1</b> |
| Run VMG                 | <b>1002.3</b> | <b>797.8</b> | <b>675.9</b> | <b>594.9</b> | <b>538.2</b> | <b>501.8</b> | <b>458.7</b> |
| <b>Selected Courses</b> |               |              |              |              |              |              |              |
| Windward / Leeward      | <b>1041.3</b> | <b>847.6</b> | <b>733.8</b> | <b>665.2</b> | <b>628.4</b> | <b>607.6</b> | <b>581.4</b> |
| Circular Random         | <b>879.5</b>  | <b>710.1</b> | <b>619.5</b> | <b>567.3</b> | <b>535.9</b> | <b>515.9</b> | <b>490.8</b> |
| Coastal / Long Distance | <b>1037.4</b> | <b>796.1</b> | <b>661.7</b> | <b>583.7</b> | <b>545.5</b> | <b>516.5</b> | <b>470.2</b> |
| Non Spinnaker           | <b>940.4</b>  | <b>752.5</b> | <b>650.2</b> | <b>590.4</b> | <b>554.0</b> | <b>530.8</b> | <b>503.0</b> |

**Certificate**

Number **677301**  
ORC Ref **03510000MUO**  
Issued On **22/07/2020**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default **647kg**  
Maximum **450kg**  
Minimum\* **338kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

ToD ToT  
Non Spin GPH **671.4 0.8937**  
Non Spin OSN **650.7 0.9221**

**Sails Limitations**

|           |            |
|-----------|------------|
| Headsails | Spinnakers |
| <b>5</b>  | <b>4</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>42.4°</b>  | <b>40.5°</b>  | <b>40.5°</b>  | <b>39.2°</b>  | <b>38.6°</b>  | <b>38.6°</b>  | <b>38.4°</b>  |
| Beat VMG                                                 | <b>3.33</b>   | <b>4.01</b>   | <b>4.55</b>   | <b>4.89</b>   | <b>5.01</b>   | <b>5.05</b>   | <b>5.11</b>   |
| 52°                                                      | <b>5.06</b>   | <b>5.97</b>   | <b>6.66</b>   | <b>6.98</b>   | <b>7.10</b>   | <b>7.15</b>   | <b>7.20</b>   |
| 60°                                                      | <b>5.33</b>   | <b>6.26</b>   | <b>6.86</b>   | <b>7.16</b>   | <b>7.30</b>   | <b>7.35</b>   | <b>7.39</b>   |
| 75°                                                      | <b>5.56</b>   | <b>6.49</b>   | <b>7.01</b>   | <b>7.30</b>   | <b>7.51</b>   | <b>7.65</b>   | <b>7.75</b>   |
| 90°                                                      | <b>5.53</b>   | <b>6.62</b>   | <b>7.18</b>   | <b>7.38</b>   | <b>7.59</b>   | <b>7.83</b>   | <b>8.21</b>   |
| 110°                                                     | <b>5.59</b>   | <b>6.71</b>   | <b>7.28</b>   | <b>7.64</b>   | <b>7.96</b>   | <b>8.16</b>   | <b>8.50</b>   |
| 120°                                                     | <b>5.43</b>   | <b>6.56</b>   | <b>7.20</b>   | <b>7.58</b>   | <b>7.96</b>   | <b>8.35</b>   | <b>8.86</b>   |
| 135°                                                     | <b>4.91</b>   | <b>6.01</b>   | <b>6.86</b>   | <b>7.32</b>   | <b>7.68</b>   | <b>8.08</b>   | <b>8.93</b>   |
| 150°                                                     | <b>4.15</b>   | <b>5.21</b>   | <b>6.14</b>   | <b>6.89</b>   | <b>7.32</b>   | <b>7.65</b>   | <b>8.41</b>   |
| Run VMG                                                  | <b>3.59</b>   | <b>4.51</b>   | <b>5.33</b>   | <b>6.05</b>   | <b>6.69</b>   | <b>7.17</b>   | <b>7.85</b>   |
| Gybe Angles                                              | <b>145.0°</b> | <b>150.0°</b> | <b>152.0°</b> | <b>157.5°</b> | <b>180.0°</b> | <b>180.0°</b> | <b>180.0°</b> |

**Class Division Length**

**CDL = 8.930**

**Storm Sails Areas**

Heavy Weather Jib **27.20**  
Storm Jib (JL=9.23) **10.08**  
Storm Trysail **11.53**

**Owner**

| BOAT                 |                |     |         |                    |       |          |
|----------------------|----------------|-----|---------|--------------------|-------|----------|
| Name                 | BARCAROLE TRES |     | Sail Nr | ESP-6773           |       |          |
| File                 | E6773          |     | Data in | meters/kilograms   |       |          |
| RIG                  |                |     |         |                    |       |          |
| Forestay Tension     | Aft            |     |         | Spreaders          | 2     |          |
| Inner Stay           | None Fitted    |     |         | Runners/Checkstays | 0     |          |
| Carbon Mast          | No             |     |         | Jib Furler         | No    |          |
| Fiber Rigging        | No             |     |         | Main Furler        | No    |          |
| Non-Circular Rigging | No             |     |         |                    |       |          |
| Articulated Bowsprit | No             |     |         |                    |       |          |
| P                    | 13.830         | E   | 4.760   | MDT1               | 0.110 | MW 0.202 |
| IG                   | 14.130         | J   | 3.970   | MDL1               | 0.202 | GO 0.220 |
| ISP                  | 14.160         | SFJ |         | MDT2               | 0.110 | BD 0.160 |
| BAS                  | 1.550          | SPL | 3.970   | MDL2               | 0.202 | MWT      |
| FSD                  | 0.030          | TPS |         | TL                 |       | MCG      |

| <b>INCLINING TEST AND FREEBOARDS</b>              |              |     |              |      |                            |
|---------------------------------------------------|--------------|-----|--------------|------|----------------------------|
| <b>Inclining Test    <u>Current Inclining</u></b> |              |     |              |      |                            |
| <b>Flotation date    <u>21/01/2010</u></b>        |              |     |              |      | <b>SG    <u>1.0260</u></b> |
| FFM                                               | <b>1.341</b> | FF  | <b>1.351</b> | SFFP | <b>0.367</b>               |
| FAM                                               | <b>1.041</b> | FA  | <b>1.036</b> | SAFP | <b>10.162</b>              |
| W1                                                | <b>60.0</b>  | PD1 | <b>412.7</b> | WD   | <b>11.340</b>              |
| W2                                                | <b>60.0</b>  | PD2 | <b>411.2</b> | GSA  | <b>1.0</b>                 |
| W3                                                | <b>60.0</b>  | PD3 | <b>403.6</b> | RSA  | <b>1.0</b>                 |
| W4                                                | <b>60.0</b>  | PD4 | <b>416.1</b> | PLM  | <b>9000.0</b>              |
| LCF from stem on CL / on sheer                    |              |     |              |      | <b>5.916 / 6.146</b>       |
| Maximum beam station from stem                    |              |     |              |      | <b>6.980</b>               |
| RM Measured                                       |              |     |              |      | <b>130.4kg-m</b>           |
| RM Default                                        |              |     |              |      | <b>139.5kg-m</b>           |
| Limit of positive stability / Stab.Index          |              |     |              |      | <b>110.7° / 113.1°</b>     |
| Freeboard at mast at 3.970                        |              |     |              |      | <b>1.192</b>               |



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| MIZZEN RIG AND SAILS |     |
|----------------------|-----|
|                      | N/A |

| PROPELLER    |                  |     |       |           |
|--------------|------------------|-----|-------|-----------|
| Installation | Strut            |     | PRD   | 0.413     |
| Type         | Folding 2 blades |     | PBW   | 0.111     |
| Twin Screw   | No               |     | PIPA  | 0.0030    |
| ST1          | 0.046            | ST3 | 0.170 | ST5 0.260 |
| ST2          | 0.170            | ST4 | 0.097 | EDL 2.490 |

| Certificate |             |
|-------------|-------------|
| Number      | 677301      |
| ORC Ref     | 03510000MUO |
| Issued On   | 22/07/2020  |
| VPP Ver.    | 2020 1.02   |
| Valid until | 31/12/2020  |

| COMMENTS |  |
|----------|--|
|          |  |

| MOVABLE BALLAST |     |
|-----------------|-----|
|                 | N/A |

| CENTERBOARD |     |
|-------------|-----|
|             | N/A |

| SAILS (Maximum Areas) |       |       |       |      |      |       |          |                                                                                   |
|-----------------------|-------|-------|-------|------|------|-------|----------|-----------------------------------------------------------------------------------|
| Mainsail              | MHB   | MUW   | MTW   | MHW  | MQW  | Area  | Area (r) | Formula                                                                           |
|                       | 0.16  | 0.99  | 1.79  | 3.04 | 3.97 | 38.96 | 39.70    | $P/8 \cdot (E + 2 \cdot MQW + 2 \cdot MHW + 1.5 \cdot MTW + MUW + 0.5 \cdot MHB)$ |
| Symmetric             | SLU   | SLE   | SL    | SHW  | SFL  |       |          |                                                                                   |
|                       | 14.40 | 14.40 | 14.40 | 7.12 | 6.78 | 84.62 |          | $SL \cdot (SFL + 4 \cdot SHW) / 6$                                                |
| Asymmetric            |       |       |       |      |      |       |          |                                                                                   |
| Not Available         |       |       |       |      |      |       |          |                                                                                   |

| 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 | Flying | Meas.Date  | Material Comment |
| 0.08                                                                      | 0.54 | 1.03 | 2.03 | 3.06 | 4.09 | 13.55 | 27.77 | Y   | No     | 20/01/2017 |                  |

| MEASUREMENT INVENTORY                                                  |             |               |                 |            |                    |
|------------------------------------------------------------------------|-------------|---------------|-----------------|------------|--------------------|
| Measurer <b>ESP 386/E617/E605</b><br>Date <b>21/01/2010</b><br>Comment |             |               |                 |            |                    |
| <b>Internal Ballast total = 0.0</b>                                    |             |               |                 |            |                    |
| <i>Id</i>                                                              | <i>Item</i> | <i>Weight</i> | <i>Distance</i> | <i>VCG</i> | <i>Description</i> |
| 004                                                                    | Anchor      | 26.5          | 0.77            |            | ANGLA +            |
| <i>Id</i>                                                              | <i>Item</i> | <i>Weight</i> | <i>Distance</i> | <i>VCG</i> | <i>Description</i> |
|                                                                        |             |               |                 |            |                    |

| MEASUREMENT INVENTORY |             |               |                 |                        |
|-----------------------|-------------|---------------|-----------------|------------------------|
| <i>Id</i>             | <i>Item</i> | <i>Weight</i> | <i>Distance</i> | <i>VCG Description</i> |
| 001                   | Battery     |               | 7.97            | 3 BATERIAS 12V         |

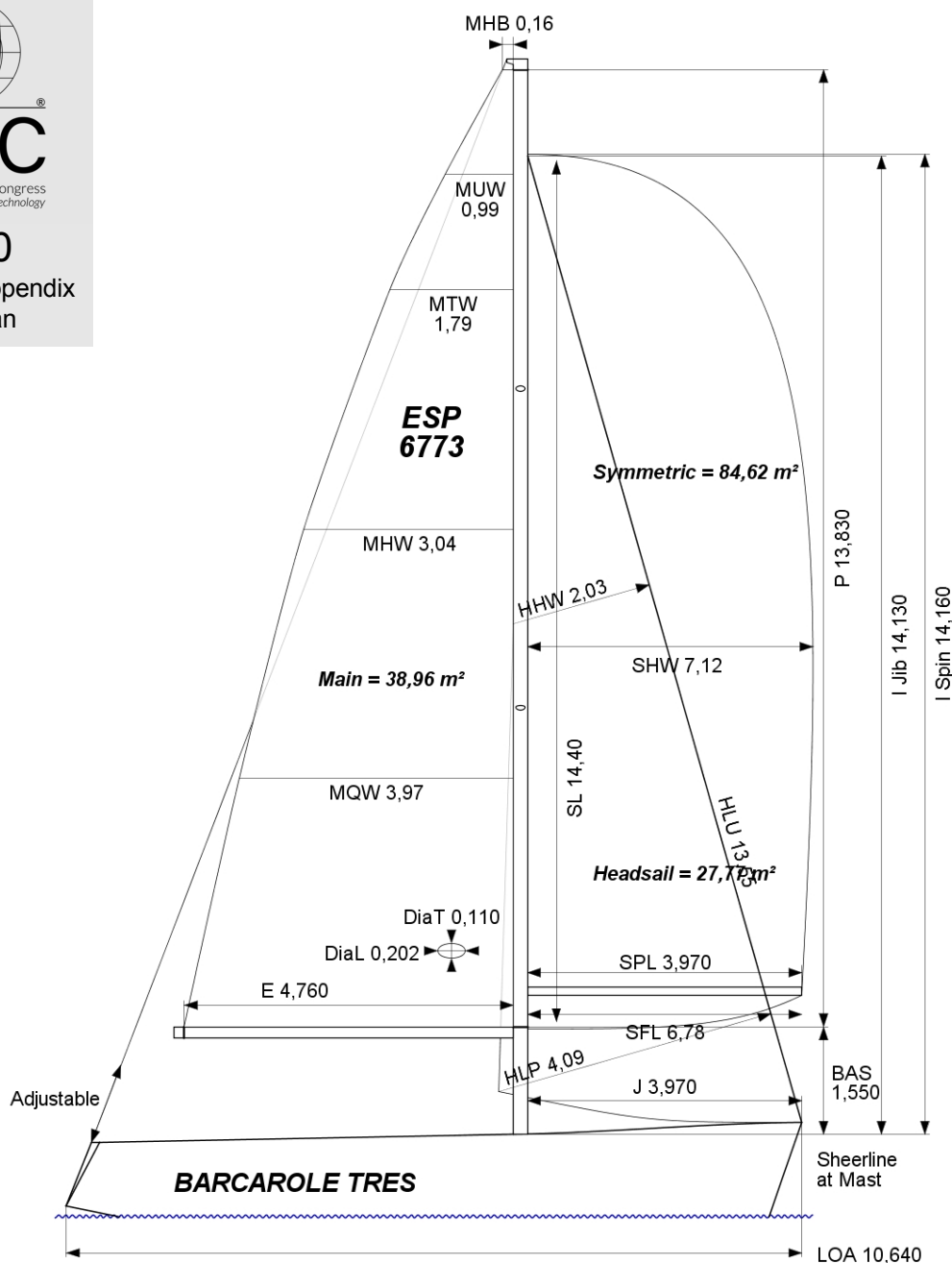


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Certificate Appendix  
Sail Plan



#### SAILS INVENTORY

##### MAINSAIL (1)

| Id  | MHB  | MUW  | MTW  | MHW  | MQW  | Area  | Measurer | Meas.Date  | Manufacture | Material | Comment |
|-----|------|------|------|------|------|-------|----------|------------|-------------|----------|---------|
| 002 | 0.16 | 0.99 | 1.79 | 3.04 | 3.97 | 38.96 |          | 06/11/2014 |             | Kevlar   |         |

##### HEADSAILS (1)

| Id  | HHB  | HUW  | HTW  | HHW  | HQW  | HLP  | HLU   | Ovrlp | Area  | Btn | Flying | Measurer | Meas.Date  | Manufacture | Material | Comment |
|-----|------|------|------|------|------|------|-------|-------|-------|-----|--------|----------|------------|-------------|----------|---------|
| 001 | 0.08 | 0.54 | 1.03 | 2.03 | 3.06 | 4.09 | 13.55 | 103%  | 27.77 | Y   | No     |          | 20/01/2017 |             |          |         |

##### SYMMETRIC SPINNAKERS (1)

| Id  | SLU   | SLE   | SL    | SHW  | SFL  | Area  | Measurer | Meas.Date  | Manufacture | Material | Comment |
|-----|-------|-------|-------|------|------|-------|----------|------------|-------------|----------|---------|
| 001 | 14.40 | 14.40 | 14.40 | 7.12 | 6.78 | 84.63 |          | 21/01/2010 |             |          |         |

##### ASYMMETRIC SPINNAKERS (0)

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