

<b>BOAT</b> Name <b>Espresso Martini</b> Sail Nr <b>BUL-545</b>	<b>GPH</b> <b>505.2</b>	<b>HULL</b> Length Overall <b>13.801m</b> Maximum Beam <b>4.188m</b> Displacement <b>6,784kg</b> Draft <b>2.881m</b> IMS Reg. Division <b>Performance</b> Dynamic Allowance <b>0.000%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Light</b> Carbon Rudder <b>Yes</b> Crew Arm Extension IMSL <b>12.269m</b> VCGD <b>-1.414m</b> Sink <b>25.44kg/mm</b> RL <b>13.407m</b> VCGM <b>-1.415m</b> WS <b>34.56m<sup>2</sup></b> LSM0 <b>12.019m</b> Displacement/Length ratio <b>3.9073</b>
<b>GENERAL</b> Class <b>Farr 45</b> Designer <b>Bruce Farr</b> Builder <b>Corel</b> Series <b>09/1996</b> Age <b>11/1997</b> Age Allowance <b>0.487%</b> Offset File <b>BEAU.OFF - 12/12/1996 07:03:56</b> Measurement by - <b>21/05/2019</b>		



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<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>490.2</b>			<b>552.2</b>		
Time on Time	<b>1.2239</b>			<b>1.2224</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>577.7</b>	<b>449.3</b>	<b>391.1</b>	<b>746.6</b>	<b>554.6</b>	<b>481.7</b>
Time on Time	<b>1.1685</b>	<b>1.5023</b>	<b>1.7260</b>	<b>0.9041</b>	<b>1.2170</b>	<b>1.4013</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>828.8</b>	<b>675.6</b>	<b>603.7</b>	<b>576.7</b>	<b>563.6</b>	<b>555.8</b>	<b>542.9</b>
52°	<b>542.9</b>	<b>456.9</b>	<b>429.1</b>	<b>415.7</b>	<b>407.4</b>	<b>401.9</b>	<b>389.4</b>
60°	<b>511.7</b>	<b>443.5</b>	<b>418.2</b>	<b>400.5</b>	<b>390.0</b>	<b>383.2</b>	<b>372.4</b>
75°	<b>488.2</b>	<b>434.8</b>	<b>407.8</b>	<b>383.2</b>	<b>365.6</b>	<b>355.5</b>	<b>344.0</b>
90°	<b>493.0</b>	<b>436.3</b>	<b>409.2</b>	<b>382.0</b>	<b>357.4</b>	<b>336.9</b>	<b>311.8</b>
110°	<b>522.0</b>	<b>438.6</b>	<b>401.9</b>	<b>371.2</b>	<b>353.4</b>	<b>335.1</b>	<b>301.9</b>
120°	<b>539.3</b>	<b>445.2</b>	<b>407.6</b>	<b>373.0</b>	<b>341.9</b>	<b>321.7</b>	<b>288.0</b>
135°	<b>600.7</b>	<b>480.1</b>	<b>429.3</b>	<b>397.0</b>	<b>365.1</b>	<b>332.8</b>	<b>267.0</b>
150°	<b>716.2</b>	<b>567.2</b>	<b>480.7</b>	<b>433.1</b>	<b>403.5</b>	<b>374.3</b>	<b>316.8</b>
Run VMG	<b>827.0</b>	<b>655.0</b>	<b>555.1</b>	<b>494.7</b>	<b>456.4</b>	<b>424.6</b>	<b>365.8</b>

**Certificate**  
Number **040/19**  
ORC Ref **BUL10025750**  
Issued On **14/06/2019**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**  
Default **895kg**  
Maximum **850kg**  
Minimum\* **638kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Double H.GPH **511.3 1.1735**  
Double H.OSN **497.3 1.2065**  
Non Spin GPH **536.2 1.1190**  
Non Spin OSN **522.8 1.1477**

<b>Selected Courses</b>							
Windward / Leeward	<b>827.9</b>	<b>665.3</b>	<b>579.4</b>	<b>535.7</b>	<b>510.0</b>	<b>490.2</b>	<b>454.3</b>
Circular Random	<b>695.8</b>	<b>562.4</b>	<b>490.6</b>	<b>448.0</b>	<b>420.0</b>	<b>399.5</b>	<b>368.4</b>
Coastal / Long Distance	<b>827.8</b>	<b>626.8</b>	<b>525.3</b>	<b>466.4</b>	<b>431.2</b>	<b>401.3</b>	<b>350.0</b>
Non Spinnaker	<b>749.4</b>	<b>601.1</b>	<b>520.1</b>	<b>471.3</b>	<b>439.4</b>	<b>416.6</b>	<b>383.3</b>

**Sails Limitations**  
Headsails **7** Spinnakers **5**

<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>42.7°</b>	<b>41.4°</b>	<b>38.6°</b>	<b>36.8°</b>	<b>35.9°</b>	<b>35.3°</b>	<b>34.8°</b>
Beat VMG	<b>4.34</b>	<b>5.33</b>	<b>5.96</b>	<b>6.24</b>	<b>6.39</b>	<b>6.48</b>	<b>6.63</b>
52°	<b>6.63</b>	<b>7.88</b>	<b>8.39</b>	<b>8.66</b>	<b>8.84</b>	<b>8.96</b>	<b>9.24</b>
60°	<b>7.04</b>	<b>8.12</b>	<b>8.61</b>	<b>8.99</b>	<b>9.23</b>	<b>9.39</b>	<b>9.67</b>
75°	<b>7.37</b>	<b>8.28</b>	<b>8.83</b>	<b>9.39</b>	<b>9.85</b>	<b>10.13</b>	<b>10.46</b>
90°	<b>7.30</b>	<b>8.25</b>	<b>8.80</b>	<b>9.42</b>	<b>10.07</b>	<b>10.68</b>	<b>11.54</b>
110°	<b>6.90</b>	<b>8.21</b>	<b>8.96</b>	<b>9.70</b>	<b>10.19</b>	<b>10.74</b>	<b>11.92</b>
120°	<b>6.68</b>	<b>8.09</b>	<b>8.83</b>	<b>9.65</b>	<b>10.53</b>	<b>11.19</b>	<b>12.50</b>
135°	<b>5.99</b>	<b>7.50</b>	<b>8.39</b>	<b>9.07</b>	<b>9.86</b>	<b>10.82</b>	<b>13.49</b>
150°	<b>5.03</b>	<b>6.35</b>	<b>7.49</b>	<b>8.31</b>	<b>8.92</b>	<b>9.62</b>	<b>11.36</b>
Run VMG	<b>4.35</b>	<b>5.50</b>	<b>6.49</b>	<b>7.28</b>	<b>7.89</b>	<b>8.48</b>	<b>9.84</b>
Gybe Angles	<b>142.5°</b>	<b>142.8°</b>	<b>147.9°</b>	<b>155.0°</b>	<b>163.5°</b>	<b>180.0°</b>	<b>148.5°</b>

**Class Division Length**  
CDL = **12.839**

**Storm Sails Areas**  
Heavy Weather Jib **44.40**  
Storm Jib (JL=11.79) **16.45**  
Storm Trysail **22.33**

**Owner**

<b>BOAT</b>	
Name <b>Espresso Martini</b>	Sail Nr <b>BUL-545</b>
File <b>bul545</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>3</b>
Inner Stay <b>None Fitted</b>	Runners <b>0</b>
Carbon Mast <b>Yes</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>18.790</b>	E <b>6.790</b> MDT1 <b>0.130</b> MW <b>0.239</b>
IG <b>18.018</b>	J <b>5.475</b> MDL1 <b>0.239</b> GO <b>0.274</b>
ISP <b>19.218</b>	SFJ <b>0.000</b> MDT2 <b>0.095</b> BD <b>0.295</b>
BAS <b>1.928</b>	SPL <b>5.420</b> MDL2 <b>0.147</b> MWT <b>250.00</b>
FSP <b>0.080</b>	TPS <b></b> TL <b>2.330</b> MCG <b>6.247</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>21/05/2019</b>		SG <b>1.0180</b>
FFM <b>1.485</b>	FF <b>1.487</b>	SFFP <b>0.201</b>
FAM <b>1.142</b>	FA <b>1.145</b>	SAFP <b>13.110</b>
W1 <b>16.9</b>	PD1 <b>17.0</b>	WD <b>12.300</b>
W2 <b>35.1</b>	PD2 <b>58.0</b>	GSA <b>50.3</b>
W3 <b>61.6</b>	PD3 <b>78.0</b>	RSA <b>18800.</b>
W4 <b>77.9</b>	PD4 <b>83.0</b>	PLM <b>2000.0</b>
LCF from stem on CL / on sheer		<b>7.589 / 7.839</b>
Maximum beam station from stem		<b>8.733</b>
RM Measured		<b>376.6kg-m</b>
RM Default		<b>263.6kg-m</b>
Limit of positive stability / Stab.Index		<b>152.6° / 150.8</b>
Freeboard at mast at 5.475		<b>1.298</b>



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

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0.425</b>	
Type <b>Folding 2 blades</b>	PBW <b>0.111</b>	
Twin Screw <b>No</b>	PIPA <b>0.0038</b>	
ST1 <b>0.042</b>	ST3 <b>0.180</b>	ST5 <b>0.275</b>
ST2 <b>0.180</b>	ST4 <b>0.112</b>	EDL <b>0.729</b>

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<b>COMMENTS</b>	

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

<b>CENTERBOARD</b>	
N/A	



<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.270	1.38	2.50	4.30	5.59	74.77	76.24	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	18.99	18.99	18.99	10.65	10.56	168.25		SL · (SFL + 4·SHW) / 6	
Asymmetric	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>Fly</b>	<b>Meas.Date</b>	<b>Material</b>	<b>Comment</b>
0.10	0.79	1.54	2.96	4.42	5.85	17.96	53.27	Y		12/05/2019	Kevlar	Jib1 Quantum
0.12	0.78	1.51	2.95	4.33	5.92	17.86	52.68	Y		12/05/2019	Carbon	Jib 1 NS
0.15	0.78	1.49	2.87	4.24	5.87	18.05	52.37	Y		12/05/2019	Carbon	3DL NS

<b>MEASUREMENT INVENTORY</b>				
Measurer				
Date <b>21/05/2019</b>				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
	Anchor			
	Chain			
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	Yanmar	4GMSD40	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

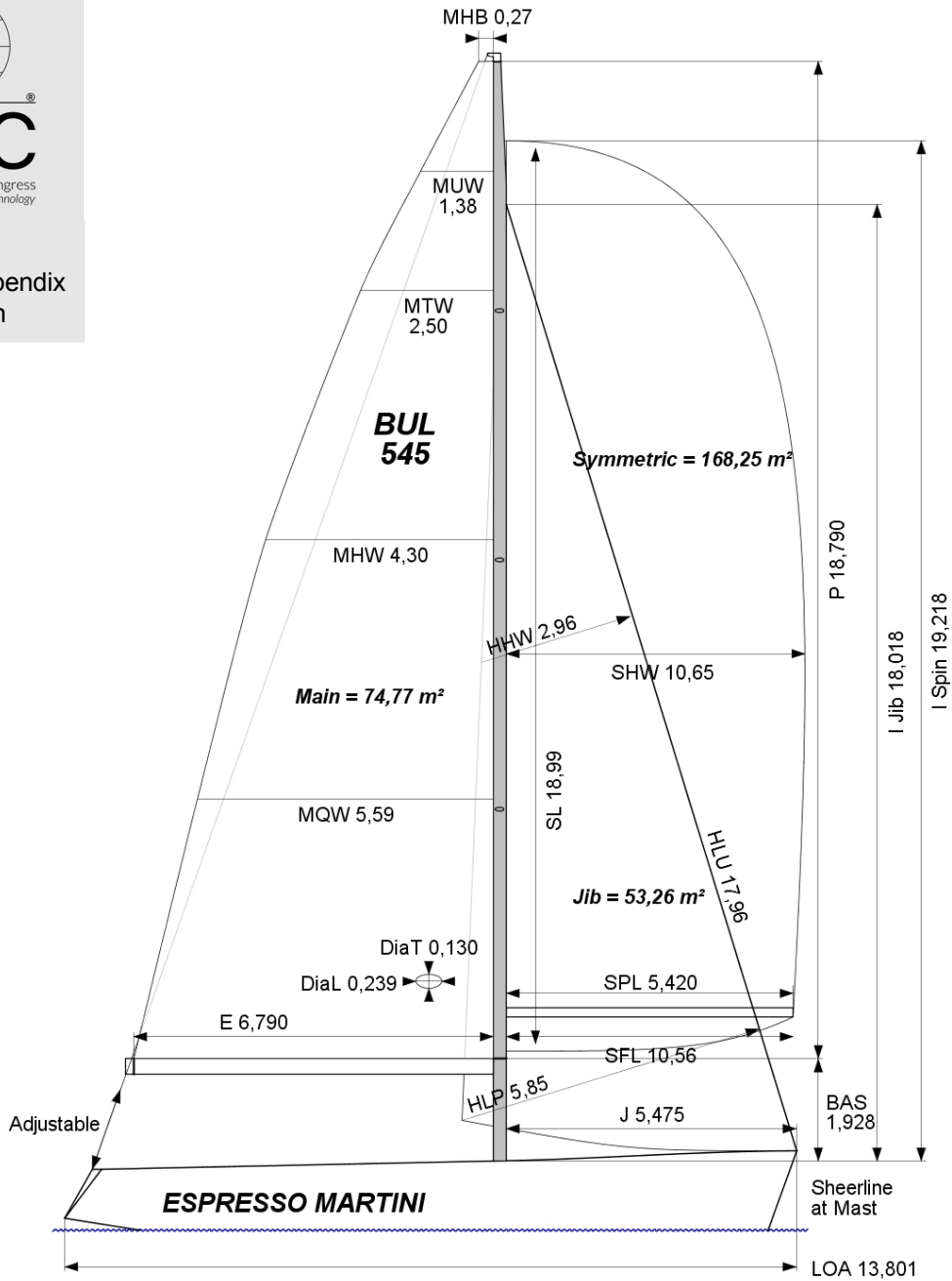
<b>MEASUREMENT INVENTORY</b>									
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>	
1	Tank	Fuel	Plastic	80.0	9.70		10-0	Almost empty	
2	Tank	Water	PVC	80.0	8.00		0-0	Empty	
3	Tank	Water	PVC	80.0	8.00		0-0	Empty	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					



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Sail Plan



**SAILS INVENTORY**

MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0,27	1,38	2,50	4,30	5,59	74,78		12/05/2019	AP Sails	Dacron	Training					
1	0,27	1,38	2,50	4,30	5,59	74,78		12/05/2019	North Sails	Carbon	3DL racing					
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,10	0,79	1,54	2,96	4,42	5,85	17,96	107%	53,27	Y			12/05/2019	Quantum	Kevlar	Jib1 Quantum
2	0,12	0,78	1,51	2,95	4,33	5,92	17,86	108%	52,68	Y			12/05/2019	North Sails	Carbon	Jib 1 NS
3	0,15	0,78	1,49	2,87	4,24	5,87	18,05	107%	52,37	Y			12/05/2019	North Sails	Carbon	3DL NS
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	18,99	18,99	18,99	10,65	10,56	168,26		17/05/2019	ISI	Nylon						
1	17,68	17,68	17,68	7,43	9,26	114,87		12/05/2019		Nylon	S5 Heavy					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				