

<b>BOAT</b>
Name <b>ESTE 24 OD</b> Sail Nr <b>E24-</b>

<b>GPH</b>
<b>652.6</b>

<b>HULL</b>
Length Overall <b>7.495m</b>
Maximum Beam <b>2.426m</b>
Displacement <b>1,013kg</b>
Draft <b>1.666m</b>
IMS Reg. Division <b>Sportboat</b>
Dynamic Allowance <b>0.009%</b>
Fwd Accommodation <b>No</b>
Hull Construction <b>Cored</b>
Carbon Rudder <b>No</b>
Crew Arm Extension
IMSL <b>6.982m</b> VCGD <b>-0.100m</b> Sink <b>7.99kg/mm</b>
RL <b>7.169m</b> VCGM <b>0.004m</b> WS <b>10.56m<sup>2</sup></b>
LSM0 <b>6.793m</b> Displacement/Length ratio <b>3.2317</b>



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**2019 (Test)**  
ORC International  
One Design Certificate

<b>GENERAL</b>
Class <b>ESTE 24 OD</b>
Designer <b>FRERS</b>
Builder <b>D'ESTE</b>
Series <b>09/1994</b>
Age <b>04/2004</b>
Age Allowance <b>0.487%</b>
Offset File <b>este24.od - 15/01/2019 14:31:57</b>
Measurement by <b>NOCETI - 01/04/2004</b>

<b>Rating Office</b>

<b>SCORING OPTIONS</b>		
	<b>COASTAL / LONG DISTANCE</b>	<b>WINDWARD / LEEWARD</b>
Time on Distance	<b>637.1</b>	<b>719.3</b>
Time on Time	<b>0.9417</b>	<b>0.9384</b>
Triple Number	Low Medium High	Low Medium High
Time on Distance	<b>728.4 586.4 516.5</b>	<b>934.0 724.8 631.4</b>
Time on Time	<b>0.9267 1.1510 1.3069</b>	<b>0.7227 0.9313 1.0690</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1072.6</b>	<b>887.8</b>	<b>805.3</b>	<b>788.6</b>	<b>785.5</b>	<b>775.7</b>	<b>785.4</b>
52°	<b>705.6</b>	<b>609.5</b>	<b>577.7</b>	<b>568.1</b>	<b>564.1</b>	<b>558.9</b>	<b>554.0</b>
60°	<b>668.5</b>	<b>593.2</b>	<b>562.6</b>	<b>548.3</b>	<b>541.7</b>	<b>537.6</b>	<b>525.3</b>
75°	<b>645.1</b>	<b>581.0</b>	<b>546.5</b>	<b>516.5</b>	<b>502.7</b>	<b>495.6</b>	<b>478.9</b>
90°	<b>627.9</b>	<b>566.1</b>	<b>541.5</b>	<b>506.8</b>	<b>473.9</b>	<b>454.6</b>	<b>441.7</b>
110°	<b>620.0</b>	<b>551.1</b>	<b>502.1</b>	<b>473.7</b>	<b>451.9</b>	<b>431.5</b>	<b>393.6</b>
120°	<b>637.1</b>	<b>558.9</b>	<b>502.7</b>	<b>454.5</b>	<b>424.4</b>	<b>405.1</b>	<b>361.4</b>
135°	<b>721.9</b>	<b>594.7</b>	<b>537.0</b>	<b>484.4</b>	<b>431.0</b>	<b>379.6</b>	<b>306.3</b>
150°	<b>855.8</b>	<b>681.9</b>	<b>593.8</b>	<b>544.7</b>	<b>499.2</b>	<b>448.5</b>	<b>329.6</b>
Run VMG	<b>988.2</b>	<b>787.4</b>	<b>685.7</b>	<b>629.0</b>	<b>576.4</b>	<b>517.8</b>	<b>380.5</b>

<b>Certificate</b>
Number <b>ESTE24</b>
ORC Ref <b>N/A</b>
Issued On <b>15/01/2019</b>
VPP Ver. <b>2019 1.01</b>
<b>Invalid for Racing</b>

<b>Crew Weight</b>
Default <b>397kg</b>
Maximum <b>400kg</b>
Minimum* <b>300kg</b>
<i>*when applied by the NoR and SI</i>
Non Manual Pwr <b>No</b>

<b>Special Scoring</b>
ToD ToT
Non Spin GPH <b>698.4 0.8591</b>
Non Spin OSN <b>677.5 0.8856</b>

<b>Selected Courses</b>							
Windward / Leeward	<b>1030.4</b>	<b>837.6</b>	<b>745.5</b>	<b>708.8</b>	<b>681.0</b>	<b>646.8</b>	<b>583.0</b>
Circular Random	<b>880.9</b>	<b>720.0</b>	<b>635.1</b>	<b>585.2</b>	<b>552.0</b>	<b>526.5</b>	<b>485.2</b>
Coastal / Long Distance	<b>1026.2</b>	<b>790.1</b>	<b>677.0</b>	<b>613.7</b>	<b>571.6</b>	<b>530.9</b>	<b>459.6</b>
Non Spinnaker	<b>962.8</b>	<b>777.1</b>	<b>677.8</b>	<b>619.8</b>	<b>582.9</b>	<b>557.3</b>	<b>521.9</b>

<b>Sails Limitations</b>	
Headsails <b>5</b>	Spinnakers <b>3</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>42.1°</b>	<b>40.8°</b>	<b>37.6°</b>	<b>37.2°</b>	<b>37.2°</b>	<b>37.2°</b>	<b>38.5°</b>
Beat VMG	<b>3.36</b>	<b>4.06</b>	<b>4.47</b>	<b>4.56</b>	<b>4.58</b>	<b>4.64</b>	<b>4.58</b>
52°	<b>5.10</b>	<b>5.91</b>	<b>6.23</b>	<b>6.34</b>	<b>6.38</b>	<b>6.44</b>	<b>6.50</b>
60°	<b>5.39</b>	<b>6.07</b>	<b>6.40</b>	<b>6.57</b>	<b>6.65</b>	<b>6.70</b>	<b>6.85</b>
75°	<b>5.58</b>	<b>6.20</b>	<b>6.59</b>	<b>6.97</b>	<b>7.16</b>	<b>7.26</b>	<b>7.52</b>
90°	<b>5.73</b>	<b>6.36</b>	<b>6.65</b>	<b>7.10</b>	<b>7.60</b>	<b>7.92</b>	<b>8.15</b>
110°	<b>5.81</b>	<b>6.53</b>	<b>7.17</b>	<b>7.60</b>	<b>7.97</b>	<b>8.34</b>	<b>9.15</b>
120°	<b>5.65</b>	<b>6.44</b>	<b>7.16</b>	<b>7.92</b>	<b>8.48</b>	<b>8.89</b>	<b>9.96</b>
135°	<b>4.99</b>	<b>6.05</b>	<b>6.70</b>	<b>7.43</b>	<b>8.35</b>	<b>9.48</b>	<b>11.75</b>
150°	<b>4.21</b>	<b>5.28</b>	<b>6.06</b>	<b>6.61</b>	<b>7.21</b>	<b>8.03</b>	<b>10.92</b>
Run VMG	<b>3.64</b>	<b>4.57</b>	<b>5.25</b>	<b>5.72</b>	<b>6.25</b>	<b>6.95</b>	<b>9.46</b>
Gybe Angles	<b>143.9°</b>	<b>147.5°</b>	<b>150.1°</b>	<b>148.4°</b>	<b>145.5°</b>	<b>143.6°</b>	<b>141.7°</b>

<b>Class Division Length</b>
<b>CDL = 7.076</b>

<b>Storm Sails Areas</b>
Heavy Weather Jib <b>11.50</b>
Storm Jib (JL=6.00) <b>4.26</b>
Storm Triesail <b>5.74</b>

<b>Owner</b>
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

<b>BOAT</b>	Name <b>ESTE 24 OD</b>	Sail Nr <b>E24-</b>
	File <b>este24</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test Enter VCG directly		
Flotation date <b>01/04/2016</b>	SG <b>1.0250</b>	
VCGDe <b>-0.100</b>		
FFM <b>0.940</b>	FF <b>0.940</b>	SFFP <b>0.212</b>
FAM <b>0.695</b>	FA <b>0.695</b>	SAFP <b>7.063</b>
LCF from stem on CL / on sheer		<b>4.191 / 4.338</b>
Maximum beam station from stem		<b>5.137</b>
RM Measured		<b>19.5kg-m</b>
RM Default		<b>24.8kg-m</b>
Limit of positive stability / Stab.Index		<b>109.9° / 101.8</b>
Freeboard at mast at 3.125		<b>0.802</b>



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**2019**  
IMS Measurement  
Certificate

<b>RIG</b>					
Forestay Tension <b>Fixed</b>	Spreaders <b>1</b>				
Inner Stay <b>None Fitted</b>	Runners <b>0</b>				
Carbon Mast <b>No</b>	Jumper Struts <b>No</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>Yes</b>				
Articulated Bowsprit <b>No</b>					
P <b>9.550</b>	E <b>3.430</b>	MDT1 <b>0.077</b>	MW <b>0.115</b>		
IG <b>9.160</b>	J <b>2.800</b>	MDL1 <b>0.115</b>	GO <b>0.135</b>		
ISP <b>9.300</b>	SFJ <b>0.325</b>	MDT2 <b>0.063</b>	BD <b>0.110</b>		
BAS <b>1.260</b>	SPL <b>0.000</b>	MDL2 <b>0.075</b>	MWT <b>36.00</b>		
FSP <b>0.000</b>	TPS <b>4.520</b>	TL <b>1.700</b>	MCG <b>3.800</b>		

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

<b>PROPELLER</b>
Type <b>No Propeller</b>

<b>COMMENTS</b>

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

<b>CENTERBOARD</b>
N/A

**Certificate**

Number **ESTE24**  
ORC Ref **N/A**  
Issued On **15/01/2019**  
VPP Ver. **2019 1.01**

**Invalid for Racing**

<b>SAILS (Maximum Areas)</b>									
<b>Mainsail</b>	<b>MHB</b>	<b>MUW</b>	<b>MTW</b>	<b>MHW</b>	<b>MQW</b>	<b>Area</b>	<b>Area (r)</b>	<b>Formula</b>	
	0.140	0.75	1.30	2.23	3.09	20.10	20.58	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
<b>Symmetric</b>									
Not Available									
<b>Asymmetric</b>	<b>SLU</b>	<b>SLE</b>	<b>SL</b>	<b>SHW</b>	<b>SFL</b>	<b>Area</b>	<b>Formula</b>		
<b>on centerline</b>	11.95	9.45	10.70	6.85	6.85	61.08	AS · (SFL + 4·SHW) / 6		

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
<b>HBB</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>
0.08	0.43	0.82	1.53	2.17	2.80	9.20	13.61				Unknow	

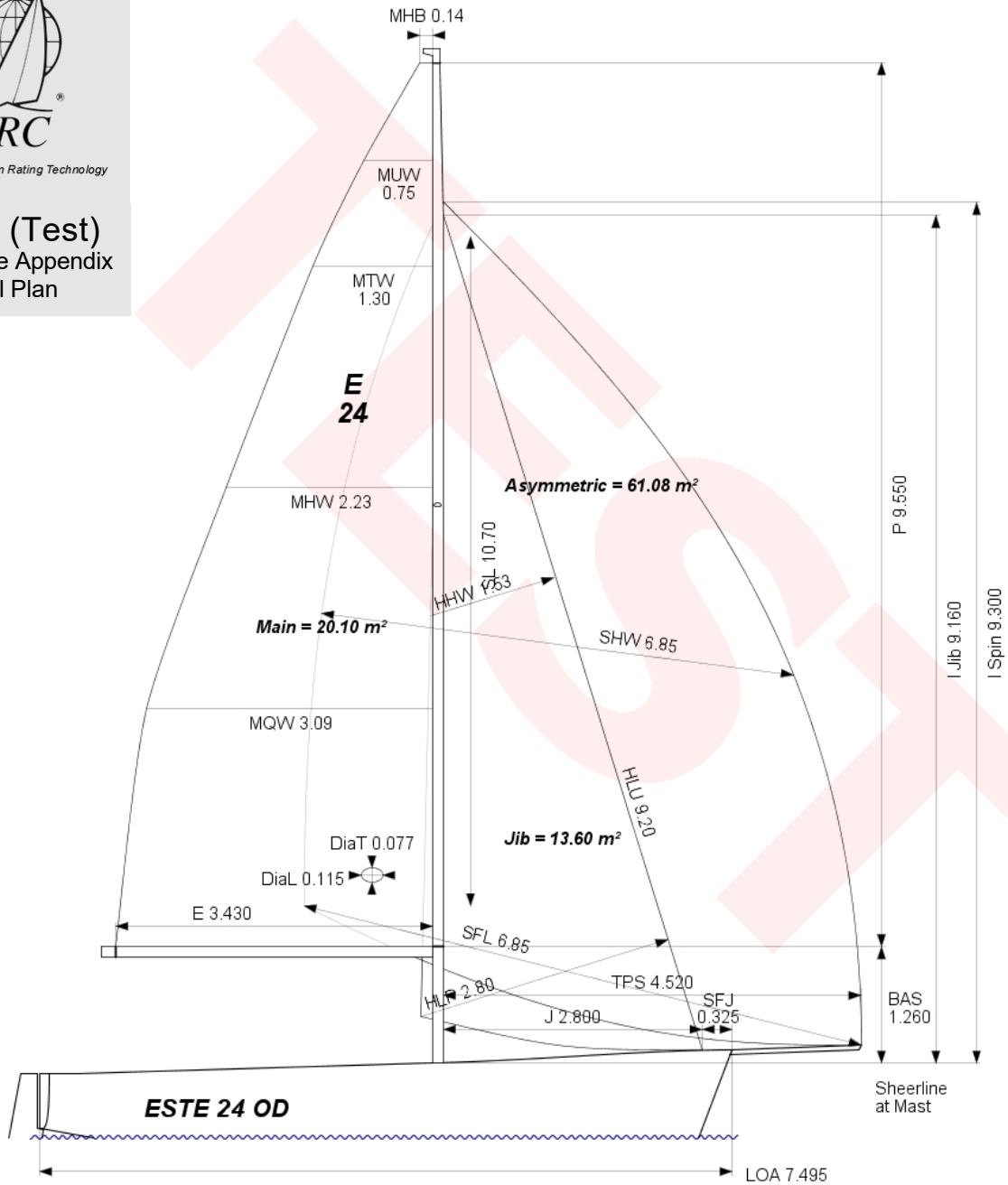
<b>MEASUREMENT INVENTORY</b>				
Measurer				
Date				
Comment				
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>
<b>Id</b>	<b>Item</b>	<b>Maker</b>	<b>Model</b>	
1	Engine	OUTBOARD	MIN 17Kg	
<b>Id</b>	<b>Item</b>	<b>Weight Description</b>		

<b>MEASUREMENT INVENTORY</b>				
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>



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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					
ORC	0.14	0.75	1.30	2.23	3.09	20.11	CLASS				CLASS					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
A	0.08	0.43	0.82	1.53	2.17	2.80	9.20	100%	13.61			CLASS				Unknow
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				
A	11.95	9.45	10.70	6.85	6.85	61.08	asym				Unknown	Comment				