

<b>BOAT</b> Name <b>TECHNICOL</b> Sail Nr <b>EST-615</b>	<b>GPH</b> <b>569.9</b>	<b>HULL</b> Length Overall <b>12.350m</b> Maximum Beam <b>3.646m</b> Displacement <b>6,841kg</b> Draft <b>2.309m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.000%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Cored</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>X-41 mod</b> Designer <b>JEPPESEN</b> Builder <b>X YACHTS</b> Series <b>01/2006</b> Age <b>04/2010</b> Age Allowance <b>0.390%</b> Offset File <b>X41_k2016_mkRUD.off - 15/07/2017</b> Measurement by <b>Tetsmann/Luciani - 10/05/2018</b>		IMSL <b>11.061m</b> VCGD <b>-0.231m</b> Sink <b>22.89kg/mm</b> RL <b>10.163m</b> VCGM <b>-0.243m</b> WS <b>32.25m<sup>2</sup></b> LSM0 <b>10.938m</b> Displacement/Length ratio <b>5.2276</b>



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>554.0</b>			<b>620.1</b>		
Time on Time	<b>1.0831</b>			<b>1.0886</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>651.8</b>	<b>505.1</b>	<b>449.9</b>	<b>841.5</b>	<b>622.4</b>	<b>543.1</b>
Time on Time	<b>1.0356</b>	<b>1.3364</b>	<b>1.5004</b>	<b>0.8021</b>	<b>1.0845</b>	<b>1.2429</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>951.8</b>	<b>780.0</b>	<b>692.8</b>	<b>662.4</b>	<b>649.0</b>	<b>639.1</b>	<b>628.6</b>
52°	<b>623.1</b>	<b>519.3</b>	<b>477.2</b>	<b>464.3</b>	<b>458.8</b>	<b>456.0</b>	<b>447.8</b>
60°	<b>589.5</b>	<b>498.4</b>	<b>464.9</b>	<b>451.7</b>	<b>445.8</b>	<b>442.5</b>	<b>434.1</b>
75°	<b>565.3</b>	<b>485.6</b>	<b>455.8</b>	<b>438.1</b>	<b>426.1</b>	<b>419.5</b>	<b>413.5</b>
90°	<b>572.1</b>	<b>487.9</b>	<b>454.1</b>	<b>435.0</b>	<b>416.3</b>	<b>400.8</b>	<b>384.1</b>
110°	<b>588.1</b>	<b>484.4</b>	<b>446.1</b>	<b>421.2</b>	<b>399.4</b>	<b>387.0</b>	<b>364.9</b>
120°	<b>602.4</b>	<b>493.0</b>	<b>450.2</b>	<b>421.8</b>	<b>395.1</b>	<b>373.4</b>	<b>344.5</b>
135°	<b>664.2</b>	<b>534.3</b>	<b>470.5</b>	<b>440.4</b>	<b>412.9</b>	<b>385.7</b>	<b>330.9</b>
150°	<b>787.6</b>	<b>627.7</b>	<b>527.6</b>	<b>471.0</b>	<b>442.7</b>	<b>417.5</b>	<b>368.4</b>
Run VMG	<b>909.4</b>	<b>724.9</b>	<b>609.3</b>	<b>537.5</b>	<b>492.6</b>	<b>457.9</b>	<b>409.7</b>

**Certificate**

Number **EST615**  
ORC Ref **EST00000331**  
Issued On **22/08/2018**  
VPP Ver. **2018 1.00**  
Valid until **31/12/2018**

**Crew Weight**

Default 782kg  
Maximum **880kg**  
Minimum\* **660kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>574.5</b>	<b>1.0444</b>
Double H.OSN	<b>560.3</b>	<b>1.0708</b>
Non Spin GPH	<b>602.6</b>	<b>0.9957</b>
Non Spin OSN	<b>586.0</b>	<b>1.0239</b>

Selected Courses							
Windward / Leeward	<b>930.6</b>	<b>752.4</b>	<b>651.0</b>	<b>600.0</b>	<b>570.8</b>	<b>548.5</b>	<b>519.2</b>
Circular Random	<b>784.3</b>	<b>633.2</b>	<b>552.9</b>	<b>506.6</b>	<b>477.9</b>	<b>458.4</b>	<b>431.5</b>
Coastal / Long Distance	<b>928.5</b>	<b>707.3</b>	<b>588.4</b>	<b>524.5</b>	<b>489.4</b>	<b>459.5</b>	<b>412.2</b>
Non Spinnaker	<b>842.5</b>	<b>674.6</b>	<b>583.8</b>	<b>530.6</b>	<b>497.5</b>	<b>475.4</b>	<b>446.4</b>

**Sails Limitations**

Headsails	Spinnakers
<b>6</b>	<b>4</b>

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.0°</b>	<b>41.7°</b>	<b>40.3°</b>	<b>39.0°</b>	<b>39.0°</b>	<b>38.4°</b>	<b>38.6°</b>
Beat VMG	<b>3.78</b>	<b>4.62</b>	<b>5.20</b>	<b>5.43</b>	<b>5.55</b>	<b>5.63</b>	<b>5.73</b>
52°	<b>5.78</b>	<b>6.93</b>	<b>7.54</b>	<b>7.75</b>	<b>7.85</b>	<b>7.89</b>	<b>8.04</b>
60°	<b>6.11</b>	<b>7.22</b>	<b>7.74</b>	<b>7.97</b>	<b>8.07</b>	<b>8.14</b>	<b>8.29</b>
75°	<b>6.37</b>	<b>7.41</b>	<b>7.90</b>	<b>8.22</b>	<b>8.45</b>	<b>8.58</b>	<b>8.71</b>
90°	<b>6.29</b>	<b>7.38</b>	<b>7.93</b>	<b>8.28</b>	<b>8.65</b>	<b>8.98</b>	<b>9.37</b>
110°	<b>6.12</b>	<b>7.43</b>	<b>8.07</b>	<b>8.55</b>	<b>9.01</b>	<b>9.30</b>	<b>9.87</b>
120°	<b>5.98</b>	<b>7.30</b>	<b>8.00</b>	<b>8.54</b>	<b>9.11</b>	<b>9.64</b>	<b>10.45</b>
135°	<b>5.42</b>	<b>6.74</b>	<b>7.65</b>	<b>8.17</b>	<b>8.72</b>	<b>9.33</b>	<b>10.88</b>
150°	<b>4.57</b>	<b>5.73</b>	<b>6.82</b>	<b>7.64</b>	<b>8.13</b>	<b>8.62</b>	<b>9.77</b>
Run VMG	<b>3.96</b>	<b>4.97</b>	<b>5.91</b>	<b>6.70</b>	<b>7.31</b>	<b>7.86</b>	<b>8.79</b>
Gybe Angles	<b>141.5°</b>	<b>147.1°</b>	<b>148.9°</b>	<b>155.8°</b>	<b>168.4°</b>	<b>180.0°</b>	<b>180.0°</b>

**Class Division Length**

CDL = **10.613**

**Storm Sails Areas**

Heavy Weather Jib **39.52**  
Storm Jib (JL=11.12) **14.64**  
Storm Trysail **15.12**

**Owner**

<b>BOAT</b>			
Name	<b>TECHNONICOL</b>	Sail Nr	<b>EST-615</b>
File	<b>Est0615</b>	Data in	<b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date		<b>05/07/2017</b>	SG <b>1.0250</b>
FFM	<b>1.460</b>	FF	<b>1.461</b> SFFP <b>0.200</b>
FAM	<b>1.096</b>	FA	<b>1.096</b> SAFFP <b>11.995</b>
W1	<b>111.9</b>	PD1	<b>515.3</b> WD <b>12.210</b>
W2	<b>111.9</b>	PD2	<b>515.5</b> GSA <b>1.0</b>
W3	<b>111.9</b>	PD3	<b>514.1</b> RSA <b>1.0</b>
W4	<b>111.9</b>	PD4	<b>515.4</b> PLM <b>9000.0</b>
LCF from stem on CL / on sheer		<b>6.917 / 7.131</b>	
Maximum beam station from stem		<b>8.432</b>	
RM Measured		<b>208.9kg-m</b>	
RM Default		<b>203.0kg-m</b>	
Limit of positive stability / Stab.Index		<b>131.0° / 134.5</b>	
Freeboard at mast at 5.210		<b>1.218</b>	



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**IMS Measurement Certificate**

<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>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>15.800</b>	E	<b>5.470</b> MDT1 <b>0.131</b> MW <b>0.240</b>
IG	<b>17.035</b>	J	<b>5.210</b> MDL1 <b>0.240</b> GO <b>0.263</b>
ISP	<b>17.065</b>	SFJ	MDT2 <b>0.115</b> BD <b>0.270</b>
BAS	<b>1.865</b>	SPL	<b>5.400</b> MDL2 <b>0.190</b> MWT <b>187.00</b>
FSP	<b>0.076</b>	TPS	TL <b>0.550</b> MCG <b>5.700</b>

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

<b>PROPELLER</b>			
Installation	<b>Strut</b>	PRD	<b>0.430</b>
Type	<b>Folding 2 blades</b>	PBW	<b>0.125</b>
Twin Screw	<b>No</b>	PIPA	<b>0.0036</b>
ST1	<b>0.060</b>	ST3	<b>0.180</b> ST5 <b>0.325</b>
ST2	<b>0.180</b>	ST4	<b>0.100</b> EDL <b>1.520</b>

<b>COMMENTS</b>	

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



Invalid for racing

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<b>CENTERBOARD</b>	
<b>N/A</b>	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.380	1.31	2.17	3.59	4.60	52.54	53.70	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	17.09	17.09	17.09	9.79	9.58	138.83			
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)	AS · (SFL + 4·SHW) / 6		
	16.92	15.56	16.24	5.88	7.83	84.85	109.84		

<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
0.19	0.97	1.75	3.01	4.22	5.48	16.89	49.53			15/06/2017	Unknow	Jib 1
0.18	0.88	1.61	2.91	4.14	5.47	16.89	48.24			15/06/2017	Unknow	Jib 2
0.12	0.69	1.32	2.58	3.90	5.35	16.71	44.02			08/05/2017	Unknow	Jib 3
0.13	0.63	1.17	2.21	3.18	4.01	14.81	31.69			08/05/2017	Unknow	Staysail

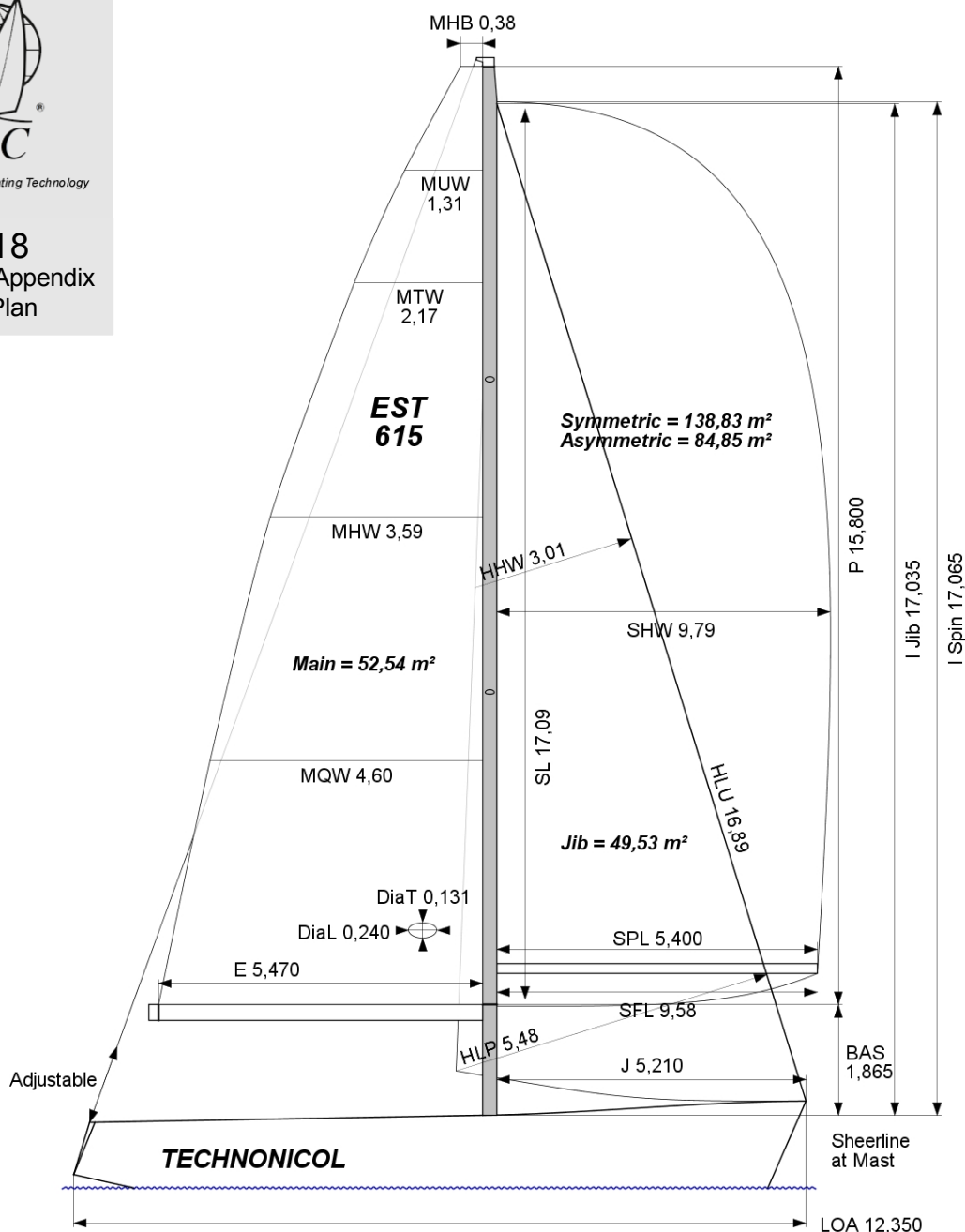
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>Paolo Luciani</b>				
Date <b>05/07/2017</b>				
Comment <b>ORC Worlds 2017</b>				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
A	Engine	VOLVO PENTA	D2-408	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>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>
C	Tank	WASTE	Plastic	40.0	4.15	0.00	0-0	
B	Tank	FUEL	Steel	90.0	5.50	0.00	5-0	
A	Tank	WATER	Plastic	210.0	5.20	0.00	0-0	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>			
C	Battery	0.0	7.50	0.00	30 Ah Engine			
B	Battery	0.0	4.50	0.00	180 Ah Sevice			
-	Misc				Removed closet in front cabin			
-	Misc				Removed decorative wall panels			
-	Misc				Removed sofa backboards in saloon			
-	Misc				Rem.hammock, closet doors in back cabin			



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measur	Meas.Date	Manufacture	Material	Comment
C	0.380	1.31	2.17	3.59	4.60	52.54	SLO 03	10/05/2018	OneSails	Unknown	P15,80;E5,47

**HEADSAILS (4)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measur	Meas.Date	Manufacture	Material	Comment
C	0.19	0.97	1.75	3.01	4.22	5.48	16.89	105%	49.53			SLO 03	15/06/2017	OneSails	Unknown	Jib 1
D	0.18	0.88	1.61	2.91	4.14	5.47	16.89	105%	48.24			SLO 03	15/06/2017	OneSails	Unknown	Jib 2
E	0.12	0.69	1.32	2.58	3.90	5.35	16.71	103%	44.02			SLO 03	08/05/2017	OneSails	Unknown	Jib 3
F	0.13	0.63	1.17	2.21	3.18	4.01	14.81	77%	31.69			SLO 03	08/05/2017	OneSails	Unknown	Staysail

**SYMMETRIC SPINNAKERS (2)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measur	Meas.Date	Manufacture	Material	Comment
C	17.09	17.09	17.09	9.79	9.58	138.83	SLO 03	15/06/2017	OneSails	Unknown	S 1
D	16.97	16.97	16.97	9.70	10.11	138.33	SLO 03	15/06/2017	OneSails	Unknown	S 2

**ASYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measur	Meas.Date	Manufacture	Material	Comment
A	16.92	15.56	16.24	5.88	7.83	84.85	asym	SLO 03	15/06/2017	OneSails	Unknown	A 0