

<b>BOAT</b> Name <b>HORUS</b> Sail Nr <b>ITA-148</b>	<b>GPH</b> <b>542.2</b>	<b>HULL</b> Length Overall <b>13.500m</b> Maximum Beam <b>4.068m</b> Displacement <b>8,428kg</b> Draft <b>2.347m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.002%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Cored</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class <b>M45</b> Designer <b>COSSUTTI-POLLI</b> Builder <b>2M MARINE</b> Series <b>06/2010</b> Age <b>06/2010</b> Age Allowance <b>0.292%</b> Offset File <b>ita148.off - 19/04/2019 17:08:46</b> Measurement by - <b>20/05/2019</b>		IMSL <b>12.274m</b> VCGD <b>0.123m</b> Sink <b>28.13kg/mm</b> RL <b>10.792m</b> VCGM <b>-0.028m</b> WS <b>37.91m<sup>2</sup></b> LSM0 <b>11.932m</b> Displacement/Length ratio <b>4.9612</b>



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>527.9</b>			<b>594.5</b>		
Time on Time	<b>1.1365</b>			<b>1.1354</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>620.3</b>	<b>480.4</b>	<b>427.5</b>	<b>806.8</b>	<b>597.6</b>	<b>520.8</b>
Time on Time	<b>1.0881</b>	<b>1.4051</b>	<b>1.5789</b>	<b>0.8366</b>	<b>1.1295</b>	<b>1.2962</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>923.8</b>	<b>752.1</b>	<b>672.0</b>	<b>642.8</b>	<b>629.4</b>	<b>616.2</b>	<b>607.1</b>
52°	<b>599.5</b>	<b>496.8</b>	<b>454.4</b>	<b>442.0</b>	<b>436.4</b>	<b>433.2</b>	<b>425.1</b>
60°	<b>562.8</b>	<b>473.4</b>	<b>439.9</b>	<b>428.4</b>	<b>422.8</b>	<b>419.6</b>	<b>409.5</b>
75°	<b>534.5</b>	<b>458.2</b>	<b>429.3</b>	<b>412.5</b>	<b>402.4</b>	<b>396.3</b>	<b>389.5</b>
90°	<b>538.6</b>	<b>459.1</b>	<b>428.3</b>	<b>408.1</b>	<b>389.8</b>	<b>375.5</b>	<b>361.9</b>
110°	<b>545.6</b>	<b>451.7</b>	<b>416.7</b>	<b>396.2</b>	<b>382.2</b>	<b>369.1</b>	<b>347.3</b>
120°	<b>560.2</b>	<b>458.9</b>	<b>420.4</b>	<b>392.5</b>	<b>368.4</b>	<b>353.4</b>	<b>329.4</b>
135°	<b>628.0</b>	<b>501.1</b>	<b>440.7</b>	<b>411.5</b>	<b>384.1</b>	<b>357.5</b>	<b>303.4</b>
150°	<b>749.2</b>	<b>594.2</b>	<b>499.4</b>	<b>446.0</b>	<b>417.4</b>	<b>392.2</b>	<b>342.5</b>
Run VMG	<b>865.1</b>	<b>686.2</b>	<b>576.6</b>	<b>511.0</b>	<b>468.7</b>	<b>435.0</b>	<b>387.0</b>

Selected Courses							
Windward / Leeward	<b>894.5</b>	<b>719.1</b>	<b>624.3</b>	<b>576.9</b>	<b>549.0</b>	<b>525.6</b>	<b>497.0</b>
Circular Random	<b>747.1</b>	<b>602.6</b>	<b>525.9</b>	<b>481.7</b>	<b>454.3</b>	<b>435.6</b>	<b>409.7</b>
Coastal / Long Distance	<b>891.5</b>	<b>674.6</b>	<b>561.9</b>	<b>500.3</b>	<b>465.7</b>	<b>436.5</b>	<b>390.8</b>
Non Spinnaker	<b>809.4</b>	<b>647.0</b>	<b>558.9</b>	<b>507.0</b>	<b>474.4</b>	<b>452.5</b>	<b>424.0</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>43.6°</b>	<b>42.2°</b>	<b>40.9°</b>	<b>40.0°</b>	<b>40.3°</b>	<b>39.5°</b>	<b>39.9°</b>
Beat VMG	<b>3.90</b>	<b>4.79</b>	<b>5.36</b>	<b>5.60</b>	<b>5.72</b>	<b>5.84</b>	<b>5.93</b>
52°	<b>6.01</b>	<b>7.25</b>	<b>7.92</b>	<b>8.15</b>	<b>8.25</b>	<b>8.31</b>	<b>8.47</b>
60°	<b>6.40</b>	<b>7.60</b>	<b>8.18</b>	<b>8.40</b>	<b>8.52</b>	<b>8.58</b>	<b>8.79</b>
75°	<b>6.73</b>	<b>7.86</b>	<b>8.39</b>	<b>8.73</b>	<b>8.95</b>	<b>9.09</b>	<b>9.24</b>
90°	<b>6.68</b>	<b>7.84</b>	<b>8.41</b>	<b>8.82</b>	<b>9.24</b>	<b>9.59</b>	<b>9.95</b>
110°	<b>6.60</b>	<b>7.97</b>	<b>8.64</b>	<b>9.09</b>	<b>9.42</b>	<b>9.75</b>	<b>10.37</b>
120°	<b>6.43</b>	<b>7.84</b>	<b>8.56</b>	<b>9.17</b>	<b>9.77</b>	<b>10.19</b>	<b>10.93</b>
135°	<b>5.73</b>	<b>7.18</b>	<b>8.17</b>	<b>8.75</b>	<b>9.37</b>	<b>10.07</b>	<b>11.87</b>
150°	<b>4.81</b>	<b>6.06</b>	<b>7.21</b>	<b>8.07</b>	<b>8.63</b>	<b>9.18</b>	<b>10.51</b>
Run VMG	<b>4.16</b>	<b>5.25</b>	<b>6.24</b>	<b>7.04</b>	<b>7.68</b>	<b>8.28</b>	<b>9.30</b>
Gybe Angles	<b>142.7°</b>	<b>145.1°</b>	<b>147.2°</b>	<b>154.2°</b>	<b>162.1°</b>	<b>180.0°</b>	<b>180.0°</b>

**Certificate**

Number **1481**  
ORC Ref **ITA00052749**  
Issued On **23/05/2019**  
VPP Ver. **2019 1.01**  
Valid until **31/12/2019**

**Crew Weight**

Default **886kg**  
Maximum **920kg**  
Minimum\* **690kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>552.2</b>	<b>1.0866</b>
Double H.OSN	<b>539.4</b>	<b>1.1124</b>
Non Spin GPH	<b>577.0</b>	<b>1.0399</b>
Non Spin OSN	<b>562.5</b>	<b>1.0666</b>

**Sails Limitations**

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

**Class Division Length**

CDL = **11.534**

**Storm Sails Areas**

Heavy Weather Jib **43.94**  
Storm Jib (JL=11.73) **16.28**  
Storm Trysail **19.35**

**Owner**

<b>BOAT</b>	
Name <b>HORUS</b>	Sail Nr <b>ITA-148</b>
File <b>ITA148</b>	Data in <b>meters/kilograms</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>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>17.550</b>	E <b>6.300</b> MDT1 <b>0.144</b> MW <b>0.276</b>
IG <b>17.888</b>	J <b>5.460</b> MDL1 <b>0.276</b> GO <b>0.322</b>
ISP <b>19.620</b>	SFJ MDT2 <b>0.117</b> BD <b>0.336</b>
BAS <b>1.790</b>	SPL <b>5.760</b> MDL2 <b>0.234</b> MWT <b>243.00</b>
FSP <b>0.075</b>	TPS <b>6.560</b> TL <b>0.996</b> MCG <b>7.636</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>10/06/2017</b>		SG <b>1.0050</b>	
FFM <b>1.470</b>	FF <b>1.476</b>	SFFP <b>0.400</b>	
FAM <b>1.160</b>	FA <b>1.168</b>	SAFP <b>13.280</b>	
W1 <b>109.8</b>	PD1 <b>469.3</b>	WD <b>13.990</b>	
W2 <b>109.8</b>	PD2 <b>468.2</b>	GSA <b>1.0</b>	
W3 <b>109.8</b>	PD3 <b>467.7</b>	RSA <b>1.0</b>	
W4 <b>109.8</b>	PD4 <b>468.8</b>	PLM <b>9000.0</b>	
LCF from stem on CL / on sheer		<b>7.257 / 7.498</b>	
Maximum beam station from stem		<b>9.113</b>	
RM Measured		<b>258.2kg-m</b>	
RM Default		<b>265.0kg-m</b>	
Limit of positive stability / Stab.Index		<b>120.4° / 123.2</b>	
Freeboard at mast at 5.460		<b>1.331</b>	



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

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD <b>0.492</b>		
Type <b>Folding 2 blades</b>	PBW <b>0.130</b>		
Twin Screw <b>No</b>	PIPA <b>0.0042</b>		
ST1 <b>0.065</b>	ST3 <b>0.180</b>	ST5 <b>0.326</b>	
ST2 <b>0.180</b>	ST4 <b>0.110</b>	EDL <b>1.970</b>	

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<b>COMMENTS</b>	
fb points from lower chine ACL	

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

<b>CENTERBOARD</b>	
N/A	



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<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>	
	0.500	1.46	2.45	4.04	5.24	66.35	67.78	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
<b>Symmetric</b>	<b>SLU</b>	<b>SLE</b>	<b>SL</b>	<b>SHW</b>	<b>SFL</b>				
	18.98	18.98	18.98	10.44	10.39	164.97		SL · (SFL + 4·SHW) / 6	
<b>Asymmetric on centerline</b>	<b>SLU</b>	<b>SLE</b>	<b>SL</b>	<b>SHW</b>	<b>SFL</b>				
	21.62	19.32	20.47	10.06	12.12	178.63		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>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>
0.18	1.08	1.88	3.26	4.53	5.63	17.60	54.86	N	N	23/05/2019	Unknow	J1L
0.18	1.09	1.87	3.27	4.52	5.59	17.60	54.73	N	N	23/05/2019	Unknow	J2
0.10	0.70	1.34	2.71	4.14	5.56	17.72	48.83	Y	N	16/06/2017	Unknow	Jib #3
0.05	0.50	0.96	1.98	2.97	3.92	16.40	32.34	N	N	16/06/2017	Unknow	Stay Sail

<b>MEASUREMENT INVENTORY</b>				
Measurer <b>FIV 85</b>				
Date <b>10/06/2017</b>				
Comment <b>MONFALCONE-FAIR CONDITIONS</b>				
<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>	
A	Engine	VOLVO	55 HP	
<b>Id</b>	<b>Item</b>	<b>Weight Description</b>		

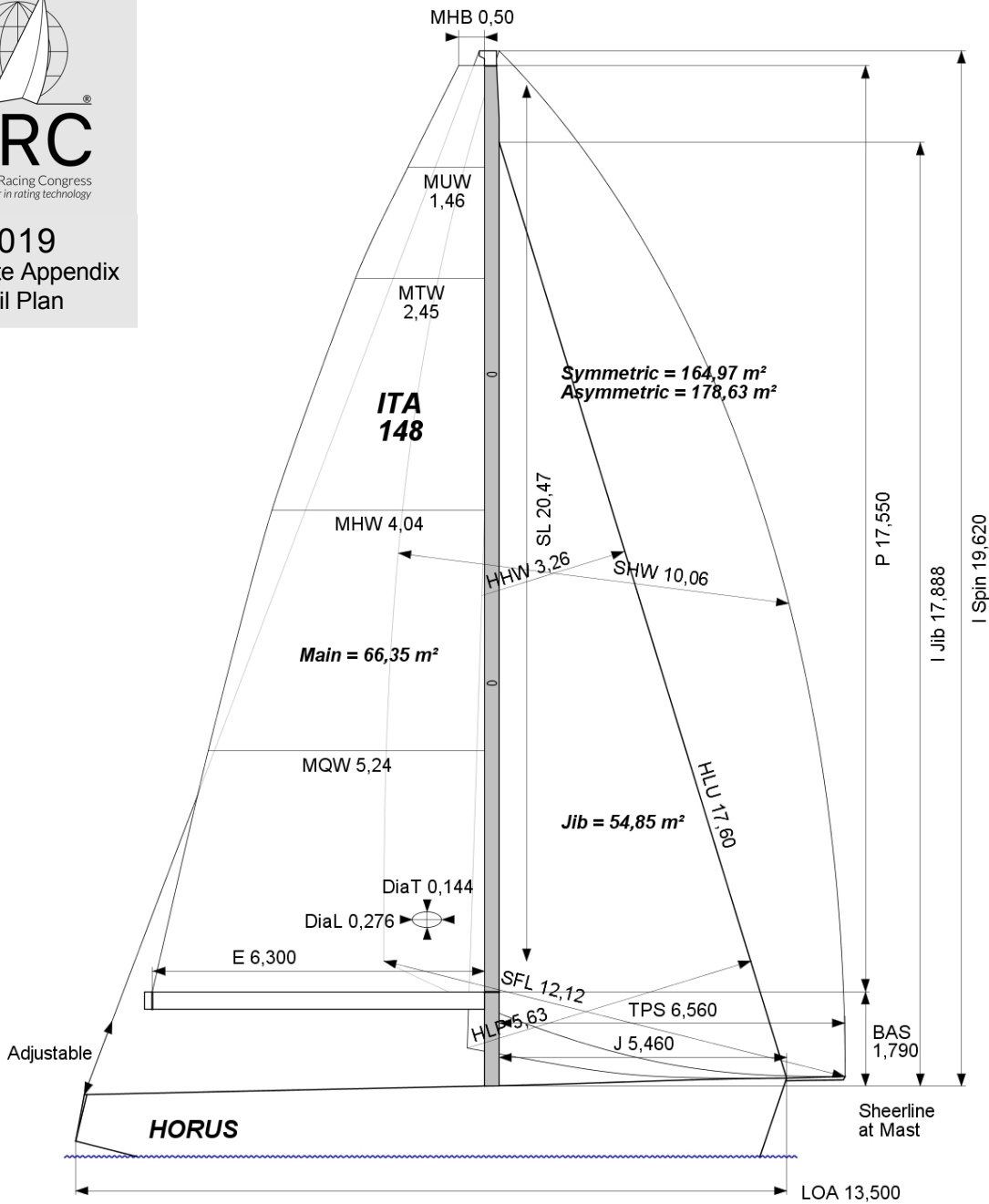
<b>MEASUREMENT INVENTORY</b>							
<b>Id</b>	<b>Item</b>	<b>Tank Use</b>	<b>Tank Type</b>	<b>Capcty</b>	<b>Dist.</b>	<b>VCG</b>	<b>Condtn Description</b>
A	Tank	DIESEL	POLIETILENE	170.0	10.95	0.20	20-0 L
B	Tank	WATER	POLIETILENE	274.0	10.95	0.00	0-0 2 x 137 L
C	Tank	BLACK	POLIETILENE	25.0	9.14	0.00	0-0
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>			
A	Ballast	64.5	5.00	-0.30 7 Pb LINGOTS FWD OF MAST			
B	Ballast	51.6	5.50	-0.30 6 Pb LINGOTS IN WC			
C	Ballast	63.0	6.00	-0.30 7 Pb LINGOTS STBD NEAR MAST			
A	Battery	81.0	6.40	0.00 3 x 27 kg (3 x 100 Ah) SERVIZI			
B	Battery	15.0	9.70	0.00 1 x 44 Ah MOTORE			
A	Misc	0.0	7.25	0.00 FORNO E FORNELLO BASCULANTI			
B	Misc	35.0	10.94	0.00 BOILER 20 LITRI			



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Sail Plan



**SAILS INVENTORY**

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
D	0.50	1.46	2.45	4.04	5.24	66.35		18/05/2017	OLIMPIC	Unknown						
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
B	0.18	1.08	1.88	3.26	4.53	5.63	17.60	103%	54.86	N	N		23/05/2019		Nylon	Unknow J1L
A	0.18	1.09	1.87	3.27	4.52	5.59	17.60	102%	54.73	N	N		23/05/2019		Nylon	Unknow J2
E	0.10	0.70	1.34	2.71	4.14	5.56	17.72	102%	48.83	Y	N		16/06/2017	OLIMPIC	Unknown	Jib #3
F	0.05	0.50	0.96	1.98	2.97	3.92	16.40	72%	32.34	N	N		16/06/2017	OLIMPIC	Unknown	Stay Sail
SYMMETRIC SPINNAKERS (6)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
F	18.98	18.98	18.98	10.44	10.39	164.97		23/04/2019	OLIMPIC	Nylon						
E	18.94	18.94	18.94	10.49	10.28	164.91		23/04/2019	OLIMPIC	Nylon						
G	20.05	20.05	20.05	9.52	8.96	157.20		20/05/2019	OLIMPIC	Nylon	S4					
D	18.56	18.56	18.56	10.02	9.89	154.58		20/04/2017	OLIMPIC	Nylon						
C	18.66	18.66	18.66	9.94	9.85	154.29		16/06/2017	OLIMPIC	Nylon	S1					
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
C	21.62	19.32	20.47	10.06	12.12	178.64	asym		15/05/2019	OLIMPIC	Nylon	A1				
B	19.98	18.13	19.05	6.49	8.61	109.79	asym		20/05/2019	OLIMPIC	Unknown	Code 0				