

<b>BOAT</b> Name <b>MACHICHACO II</b> Sail Nr <b>ESP-2980</b>	<b>GPH</b> <b>661,7</b>	<b>HULL</b> Length Overall <b>10,362m</b> Maximum Beam <b>3,860m</b> Displacement <b>4.395kg</b> Draft <b>2,120m</b> IMS Reg. Division <b>Performance</b> Dynamic Allowance <b>0,199%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>PROTOTIPO</b> Designer <b>FONTANA/MALETTO</b> Builder <b>MININI</b> Series <b>01/1982</b> Age <b>01/1984</b> Age Allowance <b>0,488%</b> Offset File <b>machichaco2.off - 28/01/2016</b> Measurement by <b>GERARDO VALVERDE - 07/07/2014</b>		IMSL <b>8,706m</b> VCGD <b>0,015m</b> Sink <b>15,97kg/mm</b> RL <b>7,610m</b> VCGM <b>0,096m</b> WS <b>21,90m<sup>2</sup></b> LSM0 <b>8,656m</b> Displacement/Length ratio <b>6,7765</b>



**2016**  
ORC International  
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**Rating Office**  
R.F.E.V.  
Luis de salazar,9  
28002 Madrid



SCORING OPTIONS	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	<b>641,8</b>			<b>716,1</b>		
Time On Time	<b>0,9348</b>			<b>0,9426</b>		
Performance Line	<b>0,887</b>	<b>138,1</b>		<b>0,741</b>	<b>161,8</b>	
Triple Number	Low <b>0,8768</b>	Medium <b>1,1561</b>	High <b>1,3200</b>	Low <b>0,6759</b>	Medium <b>0,9330</b>	High <b>1,1016</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1147,0</b>	<b>950,8</b>	<b>836,9</b>	<b>765,4</b>	<b>731,7</b>	<b>714,4</b>	<b>704,6</b>
52°	<b>746,8</b>	<b>624,5</b>	<b>556,2</b>	<b>525,8</b>	<b>511,2</b>	<b>504,0</b>	<b>498,0</b>
60°	<b>701,6</b>	<b>587,9</b>	<b>534,9</b>	<b>511,1</b>	<b>495,9</b>	<b>486,3</b>	<b>478,5</b>
75°	<b>664,0</b>	<b>560,9</b>	<b>519,4</b>	<b>497,5</b>	<b>479,6</b>	<b>464,5</b>	<b>448,1</b>
90°	<b>667,5</b>	<b>563,5</b>	<b>516,7</b>	<b>491,7</b>	<b>478,9</b>	<b>461,3</b>	<b>433,8</b>
110°	<b>681,8</b>	<b>561,4</b>	<b>513,3</b>	<b>485,3</b>	<b>459,3</b>	<b>440,2</b>	<b>421,7</b>
120°	<b>703,3</b>	<b>576,3</b>	<b>520,0</b>	<b>491,4</b>	<b>465,8</b>	<b>442,1</b>	<b>405,2</b>
135°	<b>776,0</b>	<b>632,1</b>	<b>547,0</b>	<b>509,7</b>	<b>484,1</b>	<b>459,6</b>	<b>416,9</b>
150°	<b>916,5</b>	<b>726,0</b>	<b>613,0</b>	<b>542,7</b>	<b>509,3</b>	<b>485,4</b>	<b>441,6</b>
Run VMG	<b>1058,3</b>	<b>838,4</b>	<b>707,0</b>	<b>617,9</b>	<b>556,9</b>	<b>518,4</b>	<b>471,5</b>

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VPP Ver. **2016 1.00**  
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**Crew Weight**  
Declared **480kg**  
Default\* **560kg**  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>664,3</b>	<b>0,9032</b>
Double H.OSN	<b>645,8</b>	<b>0,9291</b>
Non Spin GPH	<b>691,4</b>	<b>0,8678</b>
Non Spin OSN	<b>669,1</b>	<b>0,8967</b>
N/S Perf. Line	<b>73,2</b>	<b>0,729</b>

Selected Courses							
Windward / Leeward	<b>1102,7</b>	<b>894,6</b>	<b>771,9</b>	<b>691,6</b>	<b>644,3</b>	<b>616,4</b>	<b>588,1</b>
Circular Random	<b>921,1</b>	<b>740,1</b>	<b>641,6</b>	<b>583,3</b>	<b>546,7</b>	<b>522,6</b>	<b>492,9</b>
Ocean for PCS	<b>920,4</b>	<b>730,8</b>	<b>625,6</b>	<b>562,4</b>	<b>522,0</b>	<b>494,0</b>	<b>454,4</b>
Non Spinnaker	<b>973,3</b>	<b>777,4</b>	<b>669,7</b>	<b>605,4</b>	<b>564,8</b>	<b>538,1</b>	<b>504,8</b>

**Sails Limitations**

Headsails	Spinnakers
<b>6</b>	<b>3</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>43,4°</b>	<b>42,1°</b>	<b>42,4°</b>	<b>41,0°</b>	<b>40,0°</b>	<b>39,1°</b>	<b>39,1°</b>
Beat VMG	<b>3,14</b>	<b>3,79</b>	<b>4,30</b>	<b>4,70</b>	<b>4,92</b>	<b>5,04</b>	<b>5,11</b>
52°	<b>4,82</b>	<b>5,76</b>	<b>6,47</b>	<b>6,85</b>	<b>7,04</b>	<b>7,14</b>	<b>7,23</b>
60°	<b>5,13</b>	<b>6,12</b>	<b>6,73</b>	<b>7,04</b>	<b>7,26</b>	<b>7,40</b>	<b>7,52</b>
75°	<b>5,42</b>	<b>6,42</b>	<b>6,93</b>	<b>7,24</b>	<b>7,51</b>	<b>7,75</b>	<b>8,03</b>
90°	<b>5,39</b>	<b>6,39</b>	<b>6,97</b>	<b>7,32</b>	<b>7,52</b>	<b>7,80</b>	<b>8,30</b>
110°	<b>5,28</b>	<b>6,41</b>	<b>7,01</b>	<b>7,42</b>	<b>7,84</b>	<b>8,18</b>	<b>8,54</b>
120°	<b>5,12</b>	<b>6,25</b>	<b>6,92</b>	<b>7,33</b>	<b>7,73</b>	<b>8,14</b>	<b>8,89</b>
135°	<b>4,64</b>	<b>5,70</b>	<b>6,58</b>	<b>7,06</b>	<b>7,44</b>	<b>7,83</b>	<b>8,64</b>
150°	<b>3,93</b>	<b>4,96</b>	<b>5,87</b>	<b>6,63</b>	<b>7,07</b>	<b>7,42</b>	<b>8,15</b>
Run VMG	<b>3,40</b>	<b>4,29</b>	<b>5,09</b>	<b>5,83</b>	<b>6,46</b>	<b>6,94</b>	<b>7,63</b>
Gybe Angles	<b>146,6°</b>	<b>150,8°</b>	<b>151,4°</b>	<b>157,6°</b>	<b>180,0°</b>	<b>180,0°</b>	<b>180,0°</b>

**Class Division Length**  
CDL = **8,159**

**Storm Sails Areas**

Heavy Weather Jib	<b>21,60</b>
Storm Jib (JL=8,22)	<b>8,00</b>
Storm Trysail	<b>9,34</b>

**Owner**

<b>BOAT</b>	
Name <b>MACHICHACO II</b>	Sail Nr <b>ESP-2980</b>
File <b>E2980.dxt</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>07/07/2014</b>		SG <b>1,0250</b>	
FFM <b>1,222</b>	FF <b>1,222</b>	SFFP <b>0,560</b>	
FAM <b>0,897</b>	FA <b>0,897</b>	SAFP <b>10,261</b>	
W1 <b>71,100</b>	PD1 <b>562,0</b>	WD <b>9,600</b>	
W2 <b>71,100</b>	PD2 <b>562,1</b>	GSA <b>1,0</b>	
W3 <b>71,100</b>	PD3 <b>562,2</b>	RSA <b>1,0</b>	
W4 <b>71,100</b>	PD4 <b>562,0</b>	PLM <b>9000,0</b>	
LCF from stem on CL / on sheer		<b>5,469 / 5,767</b>	
Maximum beam station from stem		<b>5,860</b>	
RM Measured		<b>95,6kg·m</b>	
RM Default		<b>98,3kg·m</b>	
Limit of positive stability / Stab.Index		<b>112,6° / 107,9</b>	
Freeboard at mast at 3,960		<b>1,135</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>No</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>11,700</b>	E <b>4,560</b>	MDT1 <b>0,080</b>	MW <b>0,170</b>
IG <b>12,550</b>	J <b>3,800</b>	MDL1 <b>0,210</b>	GO <b>0,200</b>
ISP <b>12,670</b>	SFJ <b>0,160</b>	MDT2 <b>0,070</b>	BD <b>0,270</b>
BAS <b>1,640</b>	SPL <b>3,850</b>	MDL2 <b>0,080</b>	MWT <b>80,00</b>
FSP <b>0,044</b>	TPS	TL <b>2,000</b>	MCG <b>4,000</b>



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## 2016 Measurements Datasheet

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

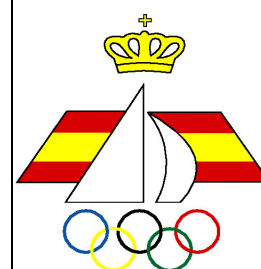
<b>PROPELLER</b>			
Installation <b>Shaft exposed</b>	PRD <b>0,377</b>		
Type <b>Feathering 2 blades</b>	PBW <b>0,120</b>		
Twin Screw <b>No</b>	PIPA <b>0,0038</b>		
PSA <b>15,800</b>	PHL <b>0,115</b>	ST3 <b>0,082</b>	ESL <b>0,900</b>
PSD <b>0,025</b>	ST1 <b>0,022</b>	ST4 <b>0,045</b>	
PHD <b>0,064</b>	ST2 <b>0,082</b>	ST5 <b>0,175</b>	

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<b>COMMENTS</b>	
NUEVO OFFSET.07/14	

<b>MOVEABLE BALLAST</b>	
N/A	



<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,140	0,92	1,68	2,90	3,82	31,46	32,21	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	74,31		SL · (SFL + 4·SHW) / 6	
	13,11	13,11	13,11	6,82	6,73				
<b>Asymmetric</b>									
Not Available									

<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
0,07	0,61	1,17	2,35	3,58	4,58	12,65	29,71					* Copied from legacy *

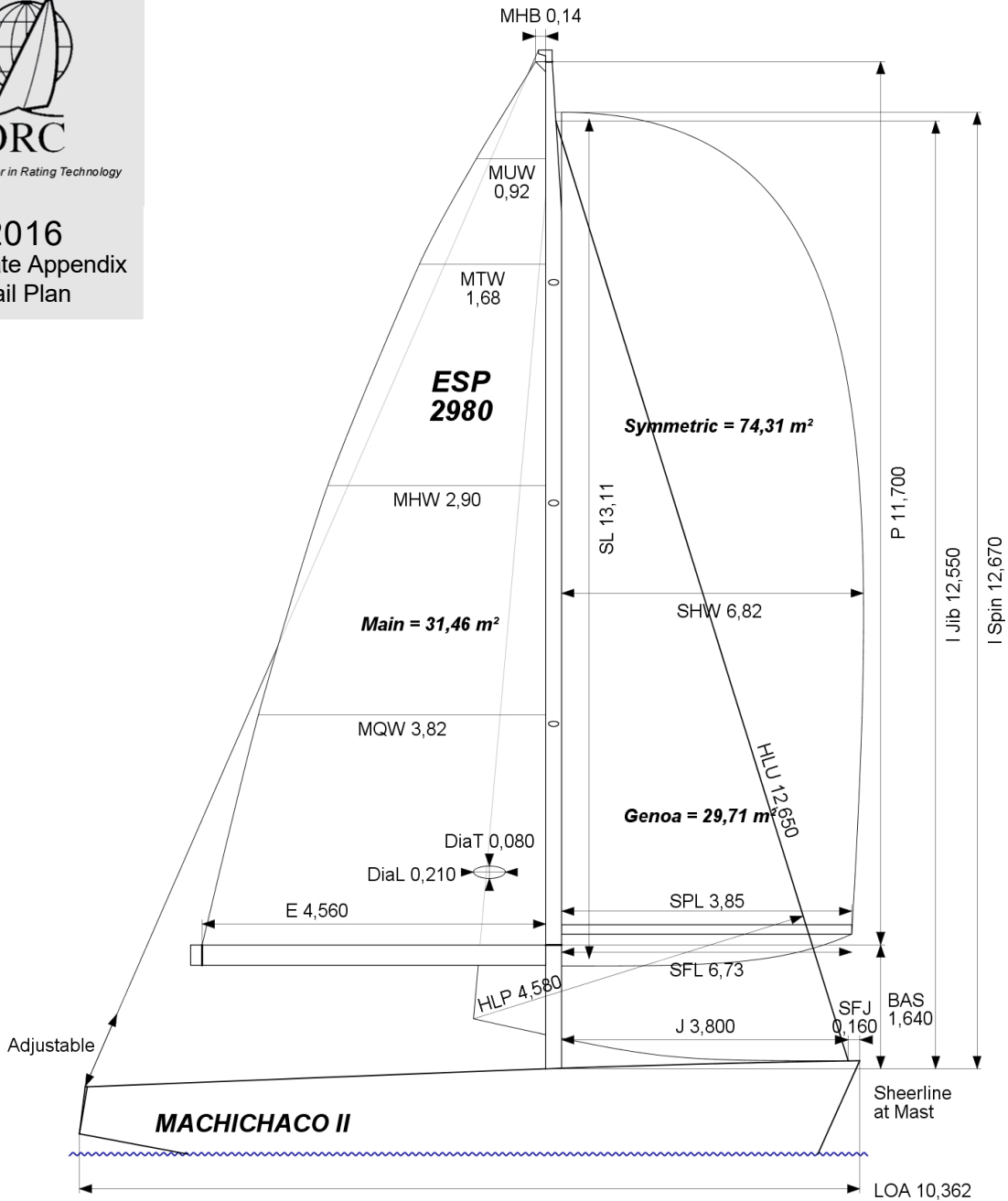
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>GERARDO VALVERDE07 E24</b>				
Date <b>07/07/2014</b>				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight Description		

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



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
m1	0,140	0,92	1,68	2,90	3,82	31,46	e24	10/01/2016		Unknown	

**HEADSAILS**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
001	0,07	0,61	1,17	2,35	3,58	4,58	12,65	121%	29,71							* Copied from legacy *

**SYMMETRIC SPINNAKERS**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC	13,11	13,11	13,11	6,82	6,73	74,31					* Copied from legacy *

**ASYMMETRIC SPINNAKERS**

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