

<b>BOAT</b> Name <b>LA SIRENA I</b> Sail Nr <b>ESP-4900</b>	<b>GPH</b> <b>702,8</b>	<b>HULL</b> Length Overall <b>7,493m</b> Maximum Beam <b>2,504m</b> Displacement <b>1.491kg</b> Draft <b>1,778m</b> IMS Reg. Division <b>Sportboat</b> Dynamic Allowance <b>0,094%</b> Fwd Accommodation <b>No</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>REVULL 75</b> Designer <b>I.TOLEDO</b> Builder <b>REVULL</b> Series <b>01/1996</b> Age <b>11/1998</b> Age Allowance <b>0,487%</b> Offset File <b>esp4900.off - 22/01/2015 13:35:06</b> Measurement by <b>JUAN BELTRAN - 25/09/2013</b>		IMSL <b>6,881m</b> VCGD <b>0,040m</b> Sink <b>8,57kg/mm</b> RL <b>6,478m</b> VCGM <b>0,079m</b> WS <b>11,09m<sup>2</sup></b> LSM0 <b>6,689m</b> Displacement/Length ratio <b>4,9819</b>



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**2017**  
ORC International  
Certificate

**Rating Office**  
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	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	<b>685,5</b>			<b>762,9</b>		
Time On Time	<b>0,8753</b>			<b>0,8848</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>790,1</b>	<b>627,6</b>	<b>563,2</b>	<b>1016,7</b>	<b>763,9</b>	<b>676,1</b>
Time on Time	<b>0,8543</b>	<b>1,0756</b>	<b>1,1985</b>	<b>0,6639</b>	<b>0,8836</b>	<b>0,9984</b>

Wind Velocity	TIME ALLOWANCES						
	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1154,8</b>	<b>965,2</b>	<b>862,4</b>	<b>829,7</b>	<b>816,9</b>	<b>806,2</b>	<b>799,4</b>
52°	<b>760,3</b>	<b>645,4</b>	<b>602,4</b>	<b>589,0</b>	<b>583,2</b>	<b>580,0</b>	<b>571,2</b>
60°	<b>717,6</b>	<b>621,6</b>	<b>587,1</b>	<b>572,1</b>	<b>565,2</b>	<b>561,5</b>	<b>550,4</b>
75°	<b>683,3</b>	<b>605,3</b>	<b>573,8</b>	<b>550,5</b>	<b>534,9</b>	<b>527,5</b>	<b>521,9</b>
90°	<b>685,2</b>	<b>596,1</b>	<b>560,2</b>	<b>544,9</b>	<b>518,9</b>	<b>498,9</b>	<b>483,3</b>
110°	<b>691,1</b>	<b>596,5</b>	<b>558,0</b>	<b>520,5</b>	<b>492,3</b>	<b>476,9</b>	<b>451,1</b>
120°	<b>717,3</b>	<b>608,3</b>	<b>566,9</b>	<b>530,9</b>	<b>493,7</b>	<b>457,8</b>	<b>419,0</b>
135°	<b>799,1</b>	<b>651,8</b>	<b>589,8</b>	<b>555,7</b>	<b>520,8</b>	<b>486,1</b>	<b>409,7</b>
150°	<b>937,7</b>	<b>748,0</b>	<b>639,4</b>	<b>586,2</b>	<b>554,5</b>	<b>522,2</b>	<b>457,7</b>
Run VMG	<b>1082,8</b>	<b>863,8</b>	<b>731,4</b>	<b>645,7</b>	<b>592,5</b>	<b>560,8</b>	<b>499,9</b>

**Certificate**  
Number **490002**  
ORC Ref **ESP00024134**  
Issued On **04/10/2017**  
VPP Ver. **2017 1.00**  
Valid until **31/12/2017**

**Crew Weight**  
Declared **300kg**  
Default\* **388kg**  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>710,0</b>	<b>0,8451</b>
Double H.OSN	<b>693,7</b>	<b>0,8650</b>
Non Spin GPH	<b>732,5</b>	<b>0,8191</b>
Non Spin OSN	<b>711,8</b>	<b>0,8429</b>

Selected Courses							
Windward / Leeward	<b>1118,8</b>	<b>914,5</b>	<b>796,9</b>	<b>737,7</b>	<b>704,7</b>	<b>683,5</b>	<b>649,7</b>
Circular Random	<b>953,3</b>	<b>776,2</b>	<b>682,9</b>	<b>629,4</b>	<b>596,2</b>	<b>573,4</b>	<b>541,1</b>
Ocean for PCS	<b>1164,6</b>	<b>907,5</b>	<b>763,9</b>	<b>676,5</b>	<b>618,9</b>	<b>577,0</b>	<b>515,2</b>
Non Spinnaker	<b>1006,4</b>	<b>813,4</b>	<b>710,7</b>	<b>651,7</b>	<b>615,4</b>	<b>591,1</b>	<b>557,8</b>

**Sails Limitations**

Headsails	Spinnakers
<b>5</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>42,2°</b>	<b>41,4°</b>	<b>39,7°</b>	<b>38,4°</b>	<b>38,1°</b>	<b>37,7°</b>	<b>38,0°</b>
Beat VMG	<b>3,12</b>	<b>3,73</b>	<b>4,17</b>	<b>4,34</b>	<b>4,41</b>	<b>4,47</b>	<b>4,50</b>
52°	<b>4,74</b>	<b>5,58</b>	<b>5,98</b>	<b>6,11</b>	<b>6,17</b>	<b>6,21</b>	<b>6,30</b>
60°	<b>5,02</b>	<b>5,79</b>	<b>6,13</b>	<b>6,29</b>	<b>6,37</b>	<b>6,41</b>	<b>6,54</b>
75°	<b>5,27</b>	<b>5,95</b>	<b>6,27</b>	<b>6,54</b>	<b>6,73</b>	<b>6,83</b>	<b>6,90</b>
90°	<b>5,25</b>	<b>6,04</b>	<b>6,43</b>	<b>6,61</b>	<b>6,94</b>	<b>7,22</b>	<b>7,45</b>
110°	<b>5,21</b>	<b>6,04</b>	<b>6,45</b>	<b>6,92</b>	<b>7,31</b>	<b>7,55</b>	<b>7,98</b>
120°	<b>5,02</b>	<b>5,92</b>	<b>6,35</b>	<b>6,78</b>	<b>7,29</b>	<b>7,86</b>	<b>8,59</b>
135°	<b>4,50</b>	<b>5,52</b>	<b>6,10</b>	<b>6,48</b>	<b>6,91</b>	<b>7,41</b>	<b>8,79</b>
150°	<b>3,84</b>	<b>4,81</b>	<b>5,63</b>	<b>6,14</b>	<b>6,49</b>	<b>6,89</b>	<b>7,87</b>
Run VMG	<b>3,32</b>	<b>4,17</b>	<b>4,92</b>	<b>5,58</b>	<b>6,08</b>	<b>6,42</b>	<b>7,20</b>
Gybe Angles	<b>146,6°</b>	<b>147,9°</b>	<b>154,7°</b>	<b>173,3°</b>	<b>180,0°</b>	<b>180,0°</b>	<b>180,0°</b>

**Class Division Length**  
CDL = **6,680**

**Storm Sails Areas**


Heavy Weather Jib	<b>11,60</b>
Storm Jib (JL=6,03)	<b>4,30</b>
Storm Trysail	<b>5,40</b>

**Owner**

<b>BOAT</b>	
Name <b>LASIRENAI</b>	Sail Nr <b>ESP-4900</b>
File <b>E4900</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>25/09/2013</b>		SG <b>1,0270</b>
FFM <b>0,922</b>	FF <b>0,921</b>	SFFP <b>0,214</b>
FAM <b>0,762</b>	FA <b>0,763</b>	SAFP <b>6,939</b>
W1 <b>25,0</b>	PD1 <b>647,5</b>	WD <b>7,130</b>
W2 <b>25,0</b>	PD2 <b>650,2</b>	GSA <b>1,0</b>
W3 <b>25,0</b>	PD3 <b>643,8</b>	RSA <b>1,0</b>
W4 <b>25,0</b>	PD4 <b>648,4</b>	PLM <b>9000,0</b>
LCF from stem on CL / on sheer		<b>4,125 / 4,285</b>
Maximum beam station from stem		<b>5,199</b>
RM Measured		<b>21,7kg·m</b>
RM Default		<b>26,9kg·m</b>
Limit of positive stability / Stab.Index		<b>110,5° / 103,8</b>
Freeboard at mast at 2,810		<b>0,831</b>

<b>RIG</b>			
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>		Runners <b>0</b>
Inner Stay <b>None Fitted</b>	Jumper Struts <b>None</b>		Jib Furler <b>No</b>
Carbon Mast <b>No</b>	Main Furler <b>No</b>		Without Backstay <b>No</b>
Taper Hollows <b>No</b>	MWT <b>41,00</b>		MCG <b>3,050</b>
Fiber Rigging <b>No</b>	P <b>8,900</b>		E <b>3,470</b>
Lenticular Rigging <b>No</b>	IG <b>9,270</b>		J <b>2,500</b>
Articulated Bowsprit <b>No</b>	ISP <b>9,330</b>		SFJ <b>0,310</b>
	BAS <b>1,350</b>		SPL <b>2,850</b>
	FSP <b>0,050</b>		TPS <b>3,500</b>
	MDT1 <b>0,081</b>		MW <b>0,120</b>
	MDL1 <b>0,120</b>		GO <b>0,120</b>
	MDT2 <b>0,081</b>		BD <b>0,118</b>
	MDL2 <b>0,120</b>		



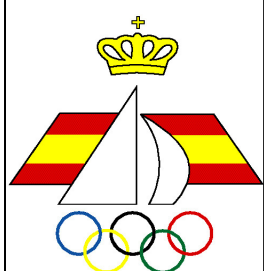
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**2017**

**IMS Measurement Certificate**

**Certificate**

Number **490002**  
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<b>MIZZEN RIG AND SAILS</b>	
N/A	

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

<b>COMMENTS</b>	

<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	
	0,155	0,83	1,49	2,38	3,02	19,37	20,02	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	
	8,98	8,98	8,98	5,00	5,03	37,46			
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)		AS · (SFL + 4·SHW) / 6	
	10,05	8,77	9,41	4,07	4,29	32,26 34,26			

<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>
0,08	0,51	0,97	1,55	2,15	2,70	9,18	13,74	Y		06/11/2013	Unknow	
0,06	0,21	0,37	0,72	1,43	2,90	8,80	9,19			25/09/2013		

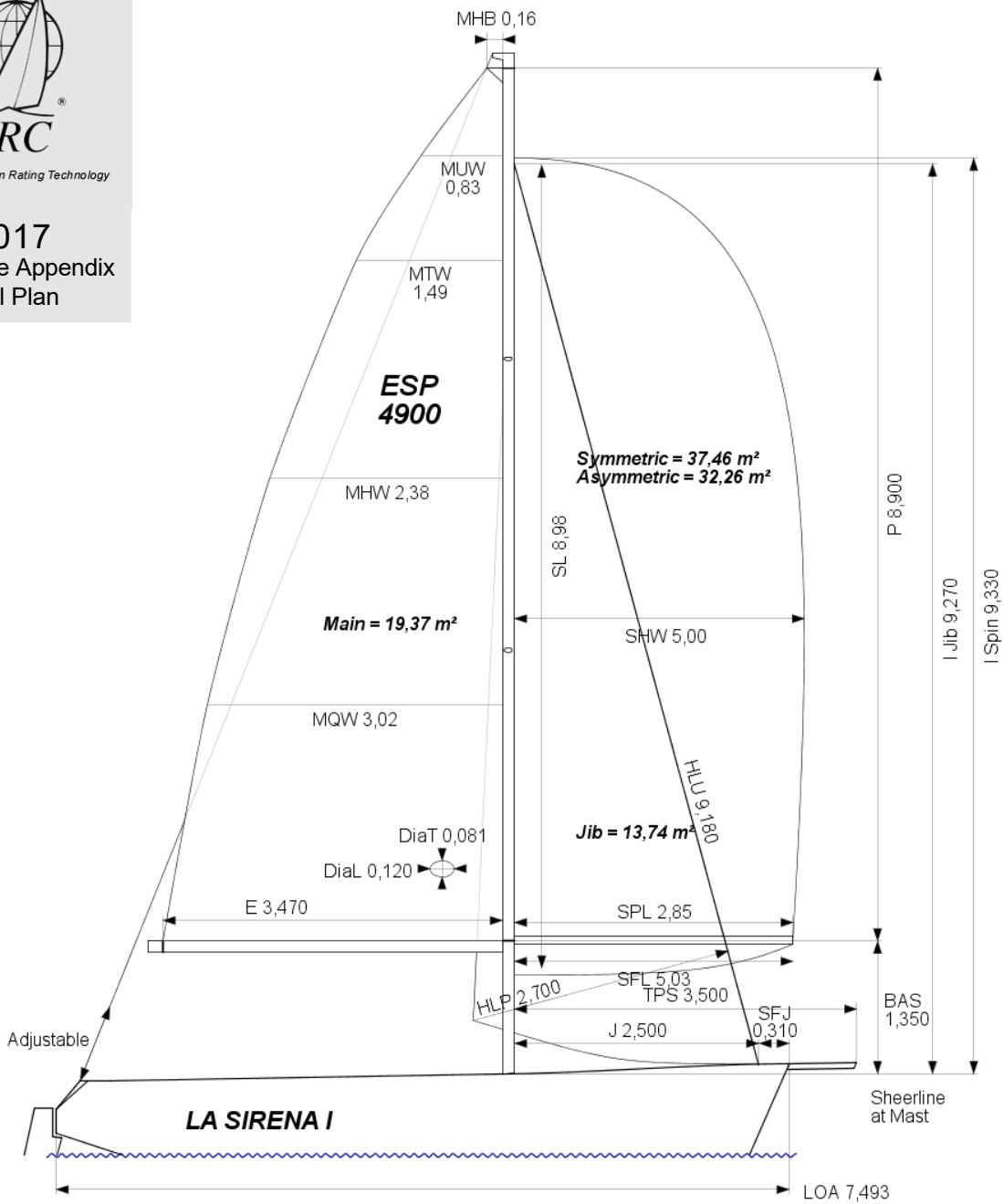
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>JUANJO BELTRAN ESP 493</b>				
Date <b>25/09/2013</b>				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
QR	Anchor	5,0	4,75	ANCLA-MAS-
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

<b>MEASUREMENT INVENTORY</b>				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
1	Battery		4,30	1 BATERIA 90 AH



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
m14	0,155	0,83	1,49	2,38	3,02	19,37	tacha	03/10/2014		Unknown	

**HEADSAILS (2)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,08	0,51	0,97	1,55	2,15	2,70	9,18	108%	13,74	Y		tacha	06/11/2013		Unknown	
ORC	0,06	0,21	0,37	0,72	1,43	2,90	8,80	116%	9,19			493	25/09/2013			

**SYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	8,98	8,98	8,98	5,00	5,03	37,46	tacha	27/11/2013		Nylon	S1

**ASYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
001	10,05	8,77	9,41	4,07	4,29	32,26	asym	E222	07/10/2015		Unknown	07101503