

BOAT		GPH	HULL					
Name <b>ZEPPELIN</b> Sail Nr <b>ESP-7386</b>		<b>660,2</b>	Length Overall <b>10,300m</b>					
			Maximum Beam <b>3,484m</b>					
			Displacement <b>5.444kg</b>					
			Draft <b>1,962m</b>					
			IMS Reg. Division <b>Cruiser/Racer</b>					
			Dynamic Allowance <b>0,348%</b>					
			Fwd Accommodation <b>Yes</b>					
			Hull Construction <b>Cored</b>					
			Carbon Rudder <b>No</b>					
			Crew Arm Extension					
			IMSL	9,500m	VCGD	-0,061m	Sink	18,52kg/mm
			RL	7,764m	VCGM	0,095m	WS	24,12m <sup>2</sup>
			LSM0	9,406m	Displacement/Length ratio		6,5419	



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**Rating Office**  
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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time on Distance	<b>639,9</b>			<b>713,5</b>	
Time on Time	<b>0,9377</b>			<b>0,9461</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>765,2</b>	<b>582,5</b>	<b>517,2</b>	<b>989,3</b>	<b>719,7</b>	<b>618,2</b>
Time on Time	<b>0,8821</b>	<b>1,1588</b>	<b>1,3050</b>	<b>0,6823</b>	<b>0,9379</b>	<b>1,0919</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1128,7</b>	<b>936,1</b>	<b>825,1</b>	<b>757,8</b>	<b>731,5</b>	<b>721,7</b>	<b>725,6</b>
52°	<b>733,4</b>	<b>620,7</b>	<b>554,9</b>	<b>524,6</b>	<b>511,6</b>	<b>507,0</b>	<b>505,3</b>
60°	<b>691,7</b>	<b>589,3</b>	<b>535,5</b>	<b>511,2</b>	<b>498,8</b>	<b>493,1</b>	<b>490,1</b>
75°	<b>661,6</b>	<b>565,5</b>	<b>521,6</b>	<b>500,4</b>	<b>486,2</b>	<b>475,5</b>	<b>465,2</b>
90°	<b>670,2</b>	<b>567,8</b>	<b>516,6</b>	<b>493,3</b>	<b>482,8</b>	<b>468,6</b>	<b>444,8</b>
110°	<b>681,2</b>	<b>561,5</b>	<b>509,6</b>	<b>484,6</b>	<b>463,9</b>	<b>445,7</b>	<b>426,4</b>
120°	<b>702,2</b>	<b>576,0</b>	<b>516,0</b>	<b>488,6</b>	<b>467,3</b>	<b>445,8</b>	<b>409,9</b>
135°	<b>775,4</b>	<b>631,3</b>	<b>545,6</b>	<b>505,9</b>	<b>482,8</b>	<b>461,4</b>	<b>419,2</b>
150°	<b>915,5</b>	<b>723,1</b>	<b>612,7</b>	<b>541,6</b>	<b>506,1</b>	<b>484,4</b>	<b>444,1</b>
Run VMG	<b>1057,1</b>	<b>835,0</b>	<b>706,3</b>	<b>619,0</b>	<b>557,9</b>	<b>516,7</b>	<b>473,4</b>

**Certificate**  
Number **738601**  
ORC Ref **ESP00003254**  
Issued On **11/03/2019**  
VPP Ver. **2019 1.01**  
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**Crew Weight**  
Default 631kg  
Maximum **500kg**  
Minimum\* **375kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Double H.GPH	<b>666,0</b>	<b>0,9009</b>
Double H.OSN	<b>646,3</b>	<b>0,9284</b>
Non Spin GPH	<b>689,3</b>	<b>0,8704</b>
Non Spin OSN	<b>666,8</b>	<b>0,8998</b>

Selected Courses							
Windward / Leeward	<b>1092,9</b>	<b>885,6</b>	<b>765,7</b>	<b>688,4</b>	<b>644,7</b>	<b>619,2</b>	<b>599,5</b>
Circular Random	<b>915,6</b>	<b>736,8</b>	<b>640,1</b>	<b>583,7</b>	<b>549,3</b>	<b>527,6</b>	<b>503,0</b>
Coastal / Long Distance	<b>1089,3</b>	<b>831,3</b>	<b>688,2</b>	<b>600,7</b>	<b>557,9</b>	<b>526,7</b>	<b>478,3</b>
Non Spinnaker	<b>968,5</b>	<b>773,9</b>	<b>667,5</b>	<b>604,6</b>	<b>566,0</b>	<b>541,6</b>	<b>513,6</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>43,4°</b>	<b>41,6°</b>	<b>41,3°</b>	<b>40,4°</b>	<b>39,6°</b>	<b>39,1°</b>	<b>39,7°</b>
Beat VMG	<b>3,19</b>	<b>3,85</b>	<b>4,36</b>	<b>4,75</b>	<b>4,92</b>	<b>4,99</b>	<b>4,96</b>
52°	<b>4,91</b>	<b>5,80</b>	<b>6,49</b>	<b>6,86</b>	<b>7,04</b>	<b>7,10</b>	<b>7,12</b>
60°	<b>5,20</b>	<b>6,11</b>	<b>6,72</b>	<b>7,04</b>	<b>7,22</b>	<b>7,30</b>	<b>7,34</b>
75°	<b>5,44</b>	<b>6,37</b>	<b>6,90</b>	<b>7,19</b>	<b>7,40</b>	<b>7,57</b>	<b>7,74</b>
90°	<b>5,37</b>	<b>6,34</b>	<b>6,97</b>	<b>7,30</b>	<b>7,46</b>	<b>7,68</b>	<b>8,09</b>
110°	<b>5,29</b>	<b>6,41</b>	<b>7,06</b>	<b>7,43</b>	<b>7,76</b>	<b>8,08</b>	<b>8,44</b>
120°	<b>5,13</b>	<b>6,25</b>	<b>6,98</b>	<b>7,37</b>	<b>7,70</b>	<b>8,08</b>	<b>8,78</b>
135°	<b>4,64</b>	<b>5,70</b>	<b>6,60</b>	<b>7,12</b>	<b>7,46</b>	<b>7,80</b>	<b>8,59</b>
150°	<b>3,93</b>	<b>4,98</b>	<b>5,88</b>	<b>6,65</b>	<b>7,11</b>	<b>7,43</b>	<b>8,11</b>
Run VMG	<b>3,41</b>	<b>4,31</b>	<b>5,10</b>	<b>5,82</b>	<b>6,45</b>	<b>6,97</b>	<b>7,61</b>
Gybe Angles	<b>146,0°</b>	<b>150,4°</b>	<b>152,2°</b>	<b>156,2°</b>	<b>173,8°</b>	<b>180,0°</b>	<b>180,0°</b>

**Class Division Length**  
CDL = **8,633**

**Storm Sails Areas**

Heavy Weather Jib	<b>23,76</b>
Storm Jib (JL=8,63)	<b>8,80</b>
Storm Trysail	<b>9,42</b>

**Owner**

<b>BOAT</b>	
Name <b>ZEPPELIN</b>	Sail Nr <b>ESP-7386</b>
File <b>E7386</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>27/04/2016</b>		SG <b>1,0250</b>	
FFM <b>1,281</b>	FF <b>1,279</b>	SFFP <b>0,390</b>	
FAM <b>1,039</b>	FA <b>1,041</b>	SAFP <b>9,636</b>	
W1 <b>83,5</b>	PD1 <b>601,1</b>	WD <b>10,550</b>	
W2 <b>83,5</b>	PD2 <b>600,2</b>	GSA <b>1,0</b>	
W3 <b>83,5</b>	PD3 <b>606,2</b>	RSA <b>1,0</b>	
W4 <b>83,5</b>	PD4 <b>577,3</b>	PLM <b>9000,0</b>	
LCF from stem on CL / on sheer		<b>5,727 / 5,968</b>	
Maximum beam station from stem		<b>6,408</b>	
RM Measured		<b>116,4kg-m</b>	
RM Default		<b>117,8kg-m</b>	
Limit of positive stability / Stab.Index		<b>113,4° / 114,6</b>	
Freeboard at mast at 3,890		<b>1,128</b>	



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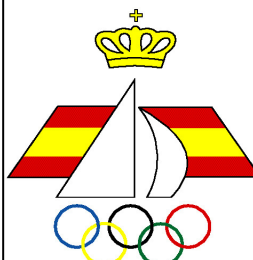
<b>RIG</b>			
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>		
Inner Stay <b>None Fitted</b>	Runners <b>0</b>		
Carbon Mast <b>No</b>	Jumper Struts <b>None</b>		
Taper Hollows <b>No</b>	Jib Furler <b>No</b>		
Fiber Rigging <b>No</b>	Main Furler <b>No</b>		
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>		
Articulated Bowsprit <b>No</b>			
P <b>11,950</b>	E <b>4,500</b>	MDT1 <b>0,120</b>	MW <b>0,180</b>
IG <b>13,160</b>	J <b>3,740</b>	MDL1 <b>0,180</b>	GO <b>0,210</b>
ISP <b>13,195</b>	SFJ <b>0,150</b>	MDT2 <b>0,120</b>	BD <b>0,130</b>
BAS <b>1,680</b>	SPL <b>3,810</b>	MDL2 <b>0,140</b>	MWT <b>126,00</b>
FSP <b>0,066</b>	TPS	TL <b>0,730</b>	MCG <b>5,320</b>

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

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD <b>0,410</b>		
Type <b>Folding 2 blades</b>	PBW		
Twin Screw <b>No</b>	PIPA <b>0,0038</b>		
ST1 <b>0,064</b>	ST3 <b>0,170</b>	ST5 <b>0,315</b>	
ST2 <b>0,170</b>	ST4 <b>0,110</b>	EDL <b>2,290</b>	

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<b>COMMENTS</b>	

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

<b>CENTERBOARD</b>	
N/A	

<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>	
	0,170	0,80	1,44	2,64	3,68	30,15	30,60	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>				
	12,97	12,97	12,97	6,77	6,53	72,65		SL · (SFL + 4·SHW) / 6	
<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)												
<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>
0,09	0,65	1,24	2,50	3,91	5,40	12,64	32,96			03/03/2018	Unknow	
0,08	0,52	0,99	2,09	3,37	4,76	12,50	27,91			27/04/2016	Unknow	

<b>MEASUREMENT INVENTORY</b>				
Measurer <b>ESP 825-842</b>				
Date <b>27/04/2016</b>				
Comment				
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG Description</b>
-	Tools			
<b>Id</b>	<b>Item</b>	<b>Maker</b>	<b>Model</b>	
001	Engine	VOLVO		
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Description</b>	

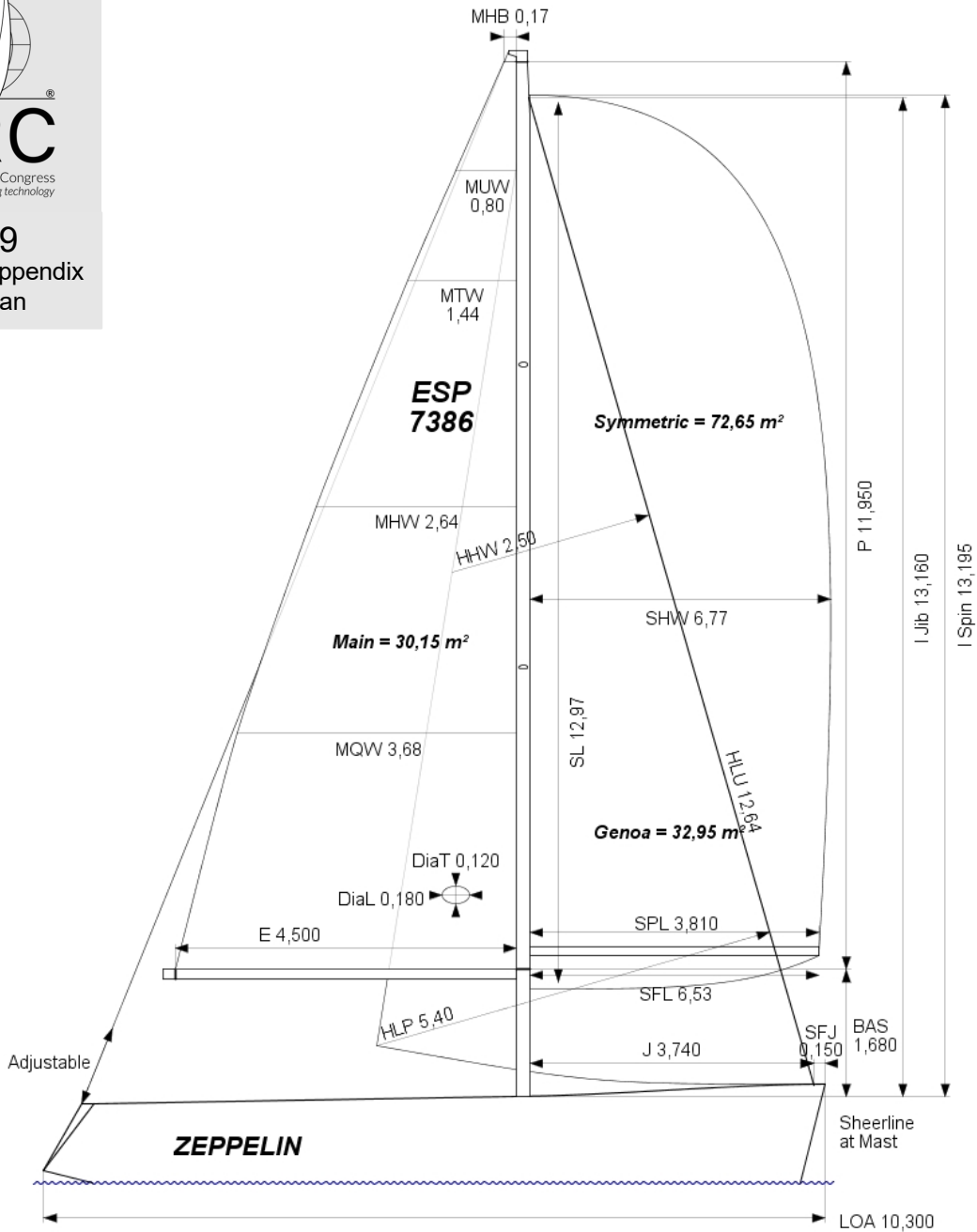
<b>MEASUREMENT INVENTORY</b>									
<b>Id</b>	<b>Item</b>	<b>Tank Use</b>	<b>Tank Type</b>	<b>Capcty</b>	<b>Dist.</b>	<b>VCG</b>	<b>Condtn</b>	<b>Description</b>	
AG	Tank	AGUA	PVC		8,20		0,0	Lado de babor	
GA	Tank	GASOIL		90,0	9,50		10,0	Lado de estribor	
A.S	Tank	AGUAS			3,00		0,0	Lado de estribor	
<b>Id</b>	<b>Item</b>	<b>Weight</b>	<b>Distance</b>	<b>VCG</b>	<b>Description</b>				
.	Ballast								
BAT	Battery	8,20		3	Baterías. Lado de babor				
.	Misc								



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Sail Plan



**SAILS INVENTORY**

MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
VELERIA	0,17	0,80	1,44	2,64	3,68	30,16		06/11/2015		Unknown						
LIGERA	0,16	0,80	1,47	2,63	3,59	29,92		27/04/2016	QUANTUM	Unknown						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
LIGERO	0,09	0,65	1,24	2,50	3,91	5,40	12,64	144%	32,96				03/03/2018	QUATUM	Unknown	
PESAD	0,08	0,52	0,99	2,09	3,37	4,76	12,50	127%	27,91				27/04/2016	QUANTUM	Unknown	
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
0.6	12,97	12,97	12,97	6,77	6,53	72,66		03/03/2018		Unknown						
POPAS	13,03	13,03	13,03	6,62	6,53	71,69		27/04/2016		Unknown						
0.9	12,90	12,90	12,90	6,67	6,44	71,21		03/03/2018		Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				