

BOAT		GPH	HULL					
Name ESTERO BLANCO		674.2	Length Overall 7.489m					
Sail Nr ESP-4616			Maximum Beam 2.378m					
GENERAL			Displacement 1,140kg					
			Draft 1.655m					
			IMS Reg. Division Sportboat					
			Dynamic Allow ance 0.183%					
			Fw d Accommodation No					
			Hull Construction Solid					
			Carbon Rudder Yes					
			Crew Arm Extension					
			IMSL	6.995m	VCGD	-0.064m	Sink	7.84kg/mm
			RL	6.883m	VCGM	-0.028m	WS	10.41m²
			LSM0	6.592m		Displacement/Length ratio		3.9797



ORC
Offshore Racing Congress
World leader in rating technology

2019
ORC International
Certificate

Rating Office

Offshore
Racing
Congress

COPY ONLY for Rating

World Leader In Rating Technology

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	657.1			736.2		
Time on Time	0.9131			0.9169		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	755.0	603.8	537.2	968.4	737.2	650.5
Time on Time	0.8940	1.1180	1.2565	0.6970	0.9156	1.0377

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1141.9	944.5	835.5	804.9	797.0	790.2	787.5
52°	751.3	637.5	593.3	579.0	573.9	572.7	563.6
60°	711.2	615.3	579.4	561.8	554.9	551.9	540.7
75°	682.9	599.3	566.9	539.4	521.6	513.9	505.3
90°	647.4	577.0	556.2	532.9	502.7	480.4	462.8
110°	639.1	566.2	522.7	495.3	476.6	455.9	425.9
120°	656.2	573.4	525.6	480.4	450.1	428.3	392.2
135°	729.6	603.9	554.5	507.8	461.3	414.5	338.0
150°	861.1	686.7	599.8	561.7	524.3	479.4	378.5
Run VMG	994.3	793.0	691.6	627.2	576.0	539.0	437.1
Selected Courses							
Windward / Leeward	1068.1	868.7	763.6	716.0	686.5	664.6	612.3
Circular Random	912.2	744.1	655.6	604.3	571.3	547.2	509.8
Coastal / Long Distance	1060.7	817.6	694.8	629.4	588.6	552.0	486.1
Non Spinnaker	1001.5	804.8	699.1	637.7	599.5	573.5	536.3

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	41.7°	40.7°	38.5°	37.2°	37.1°	37.0°	37.7°
Beat VMG	3.15	3.81	4.31	4.47	4.52	4.56	4.57
52°	4.79	5.65	6.07	6.22	6.27	6.29	6.39
60°	5.06	5.85	6.21	6.41	6.49	6.52	6.66
75°	5.27	6.01	6.35	6.67	6.90	7.01	7.12
90°	5.56	6.24	6.47	6.76	7.16	7.49	7.78
110°	5.63	6.36	6.89	7.27	7.55	7.90	8.45
120°	5.49	6.28	6.85	7.49	8.00	8.41	9.18
135°	4.93	5.96	6.49	7.09	7.80	8.69	10.65
150°	4.18	5.24	6.00	6.41	6.87	7.51	9.51
Run VMG	3.62	4.54	5.21	5.74	6.25	6.68	8.24
Gybe Angles	144.6°	147.7°	150.6°	170.7°	180.0°	180.0°	140.3°

Certificate

Number **461602**
ORC Ref **ESP00005193**
Issued On **07/08/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default 380kg
Maximum **320kg**
Minimum* **235kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	690.7	0.8687
Double H.OSN	675.4	0.8883
Non Spin GPH	721.3	0.8318
Non Spin OSN	700.1	0.8570

Sails Limitations

Headsails	Spinnakers
5	3

Dacron Sails

Class Division Length

CDL = 6.940

Storm Sails Areas

Heavy Weather Jib	10.53
Storm Jib (JL=5.74)	3.90
Storm Trysail	5.35

Owner

BOAT							
Name		ESTERO BLANCO		Sail Nr		ESP-4616	
File		E4616		Data in		meters/kilograms	
RIG							
Forestay Tension		Aft		Spreaders		1	
Inner Stay		None Fitted		Runners		0	
Carbon Mast		No		Jumper Struts		None	
Taper Hollows		No		Jib Furler		No	
Fiber Rigging		No		Main Furler		No	
Lenticular Rigging		No		Without Backstay		No	
Articulated Bowspirt		No					
P	8.950	E	3.410	MDT1	0.080	MW	0.120
IG	8.770	J	2.900	MDL1	0.120	GO	0.140
ISP	10.510	SFJ	0.200	MDT2	0.080	BD	0.112
FAS	1.165	SPL	2.650	MDL2	0.065	MWT	
BSP	0.045	TPS	4.270	TL	1.480	MCG	

INCLINING TEST AND FREEBOARDS				
Inclining Test Current Inclining				
Flotation date	12/07/2015			SG 1.0250
FFM	0.886	FF	0.886	SFFP 0.066
FAM	0.688	FA	0.688	SAFP 7.097
W1	18.8	PD1	532.6	WD 6.950
W2	18.8	PD2	531.2	GSA 1.0
W3	18.8	PD3	534.4	RSA 1.0
W4	18.8	PD4	537.6	PLM 9000.0
LCF from stem on CL / on sheer				4.027 / 4.181
Maximum beam station from stem				4.515
RM Measured				19.3kg-m
RM Default				23.6kg-m
Limit of positive stability / Stab.Index				115.3° / 107.3
Freeboard at mast at 3.100				0.795



Abstract

IMS Measurement Certificate

MIZZEN RIG AND SAILS	
	N/A

PROPELLER	
Type	No Propeller

Certificate
Number 461602
ORC Ref ESP00005193
Issued On 07/08/2019
VPP Ver. 2019 1.01
Valid until 31/12/2019

COMMENTS	

MOVABLE BALLAST	
	N/A

CENTERBOARD	
	N/A

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	
	0.150	0.70	1.27	2.18	2.85	
						Area Area (r)
						18.07 18.48
						Formula
						P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	
	8.66	8.66	8.66	5.06	4.97	
						36.39
						SL · (SFL + 4·SHW) / 6
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	
	11.62	9.10	10.36	5.10	5.99	
						Area (r)
						45.57 47.18
						AS · (SFL + 4·SHW) / 6

HEADSAILS												
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
0.06	0.36	0.69	1.37	2.05	2.69	8.49	11.61	Y		24/06/2015	Dacron	

MEASUREMENT INVENTORY				
Measurer ESP 386 Date 12/07/2015 Comment LCF EN 4,041				
<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>
EN	Engine			SIN MOTOR
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

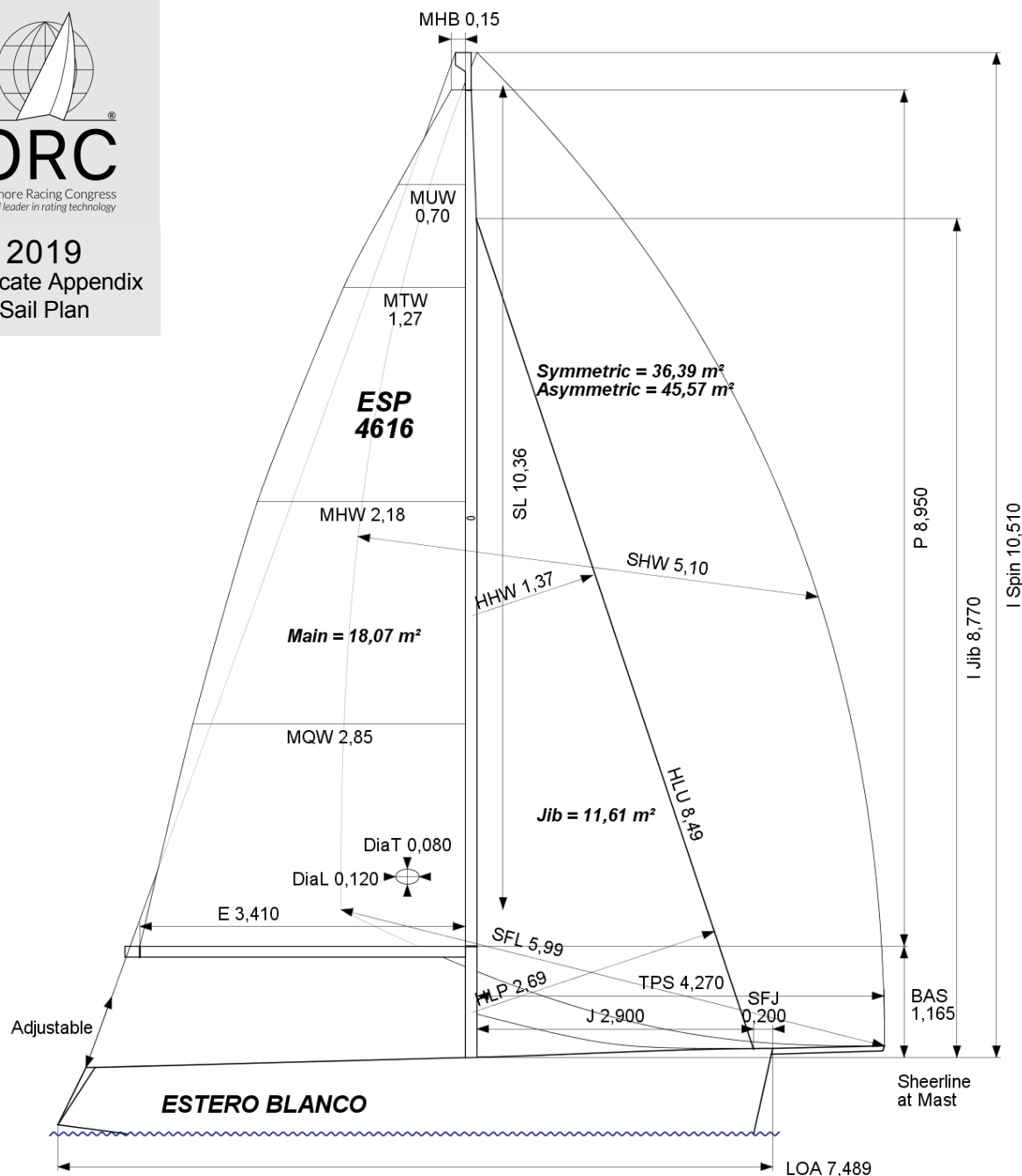
MEASUREMENT INVENTORY				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
BAT	Battery		3.40	40 Ah



ORC

Offshore Racing Congress
World leader in rating technology

2019
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M-1	0.15	0.70	1.27	2.18	2.85	18.07		24/06/2015		Dacron	

HEADSAILS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J-1	0.06	0.36	0.69	1.37	2.05	2.69	8.49	93%	11.61	Y			24/06/2015		Dacron	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S-1	8.66	8.66	8.66	5.06	4.97	36.39		24/06/2015		Unknown	

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
001	11.62	9.10	10.36	5.10	5.99	45.57	asym		14/06/2009		Unknown	