

BOAT	GPH	HULL
Name TRAFALGAR Sail Nr PER-1105	554.9	Length Overall 12.700m Maximum Beam 3.110m Displacement 6,186kg Draft 2.409m IMS Reg. Division Performance Dynamic Allowance 0.000% Fwd Accommodation No Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL		IMSL 11.056m VCGD -0.142m Sink 22.90kg/mm RL 10.377m VCGM -0.141m WS 29.55m² LSM0 10.478m Displacement/Length ratio 5.3774
Class SOTO 42 Designer SOTO ACEBAL Builder M BOATS Series 11/2009 Age 11/2009 Age Allowance 0.325% Offset File CHI1105.off - 11/11/2009 17:20:52 Measurement by - 03/10/2019		



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Rating Office
Asociacion de Veleros
Oceanicos del Peru
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SCORING OPTIONS						
Time on Distance	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	541.2			607.2		
Time on Time	1.1086			1.1117		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	627.7	493.8	441.9	816.2	612.2	534.3
Time on Time	1.0753	1.3670	1.5274	0.8270	1.1025	1.2634

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	901.1	737.1	678.0	655.5	641.1	626.3	626.3
52°	589.1	492.4	466.1	457.3	452.9	446.3	442.4
60°	555.9	473.7	451.7	443.8	439.5	434.5	427.7
75°	531.6	462.6	438.1	426.0	419.2	415.0	403.1
90°	537.5	464.0	436.0	415.7	400.7	392.0	383.4
110°	560.8	466.0	430.6	408.4	393.6	380.9	354.0
120°	581.1	476.9	437.3	408.8	382.2	365.6	340.7
135°	656.2	525.7	461.3	430.8	403.4	376.8	320.0
150°	785.5	623.3	521.9	463.3	433.9	408.3	357.9
Run VMG	907.0	719.7	602.6	529.7	483.3	448.1	399.1

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Number **110502**
ORC Ref **PER00000114**
Issued On **4/10/2019**
VPP Ver. **2019 1.01**
Valid until **31/03/2020**

Crew Weight
Default **736kg**
Maximum **765kg**
Minimum* **574kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	580.3	1.0339
Non Spin OSN	566.5	1.0592

Selected Courses							
Windward / Leeward	904.0	728.4	640.3	592.6	562.2	537.2	512.7
Circular Random	759.0	614.7	538.6	495.2	468.3	450.0	425.4
Coastal / Long Distance	904.3	684.6	576.8	515.1	479.7	450.1	407.1
Non Spinnaker	804.9	647.2	562.7	513.5	482.9	462.5	436.8

Sails Limitations

Headsails	Spinnakers
6	4

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	42.9°	41.6°	39.9°	39.5°	38.8°	38.4°	39.0°
Beat VMG	4.00	4.88	5.31	5.49	5.62	5.75	5.75
52°	6.11	7.31	7.72	7.87	7.95	8.07	8.14
60°	6.48	7.60	7.97	8.11	8.19	8.29	8.42
75°	6.77	7.78	8.22	8.45	8.59	8.67	8.93
90°	6.70	7.76	8.26	8.66	8.99	9.18	9.39
110°	6.42	7.73	8.36	8.81	9.15	9.45	10.17
120°	6.19	7.55	8.23	8.81	9.42	9.85	10.57
135°	5.49	6.85	7.80	8.36	8.92	9.55	11.25
150°	4.58	5.78	6.90	7.77	8.30	8.82	10.06
Run VMG	3.97	5.00	5.97	6.80	7.45	8.03	9.02
Gybe Angles	141.9°	145.8°	148.8°	155.1°	166.3°	180.0°	180.0°

Class Division Length
CDL = **10.718**

Storm Sails Areas

Heavy Weather Jib	32.61
Storm Jib (JL=10.11)	12.08
Storm Trysail	16.49

Owner
BIANCA COGORNO

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

BOAT	
Name TRAFALGAR	Sail Nr PER-1105
File PER1105	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay None Fitted	Runners 0
Carbon Mast Yes	Jumper Struts None
Taper Hollows No	Jib Furler No
Fiber Rigging No	Main Furler No
Lenticular Rigging No	Without Backstay No
Articulated Bowsprit No	
P 15.700	E 6.000 MDT1 0.136 MW 0.235
IG 15.488	J 4.708 MDL1 0.251 GO 0.251
ISP 15.743	SFJ 0.160 MDT2 0.095 BD 0.292
BAS 1.694	SPL 4.700 MDL2 0.157 MWT 201.00
FSP 0.072	TPS TL 2.225 MCG 5.210

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 03/10/2019	SG 1.0253	
FFM 1.405	FF 1.405	SFFP 0.087
FAM 1.080	FA 1.081	SAFP 12.117
W1 100.0	PD1 492.4	WD 11.470
W2 100.0	PD2 487.4	GSA 1.0
W3 100.0	PD3 486.4	RSA 1.0
W4 100.0	PD4 488.2	PLM 9000.0
LCF from stem on CL / on sheer		6.753 / 6.923
Maximum beam station from stem		7.594
RM Measured		184.9kg-m
RM Default		183.3kg-m
Limit of positive stability / Stab.Index		129.6° / 136.4
Freeboard at mast at 4.868		1.222



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0.393	
Type Folding 2 blades	PBW 0.107	
Twin Screw No	PIPA 0.0040	
ST1 0.066	ST3 0.178	ST5 0.322
ST2 0.170	ST4 0.110	EDL 0.607

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COMMENTS	
EX CHI-1105, EX ECU-1105	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	1.070	2.04	2.84	4.01	5.03	60.74 62.76 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	
	15.15	15.15	15.15	8.50	8.17	106.48 SL · (SFL + 4·SHW) / 6
Asymmetric	SLU	SLE	SL	SHW	SFL	
	16.06	14.45	15.26	8.29	8.17	105.08 AS · (SFL + 4·SHW) / 6

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.09	0.72	1.38	2.58	3.78	4.91	15.80	40.26	Y		09/10/2014	Kevlar	NUEVA DECLARADO
0.09	0.73	1.38	2.56	3.74	4.91	15.85	40.19	Y		24/04/2014	Kevlar	REMEDIACION
0.09	0.67	1.28	2.52	3.76	4.90	15.86	39.75	Y		03/10/2019	Carbon	NUEVA
0.08	0.72	1.37	2.54	3.70	4.85	15.62	39.19	Y		03/10/2019	Carbon	USADA

MEASUREMENT INVENTORY				
Measurer G LIZA				
Date 07/02/2019				
Comment				
Id	Item	Weight	Distance	VCG Description
C4	Engine			YANMAR 36 HP
Id	Item	Weight	Distance	VCG Description

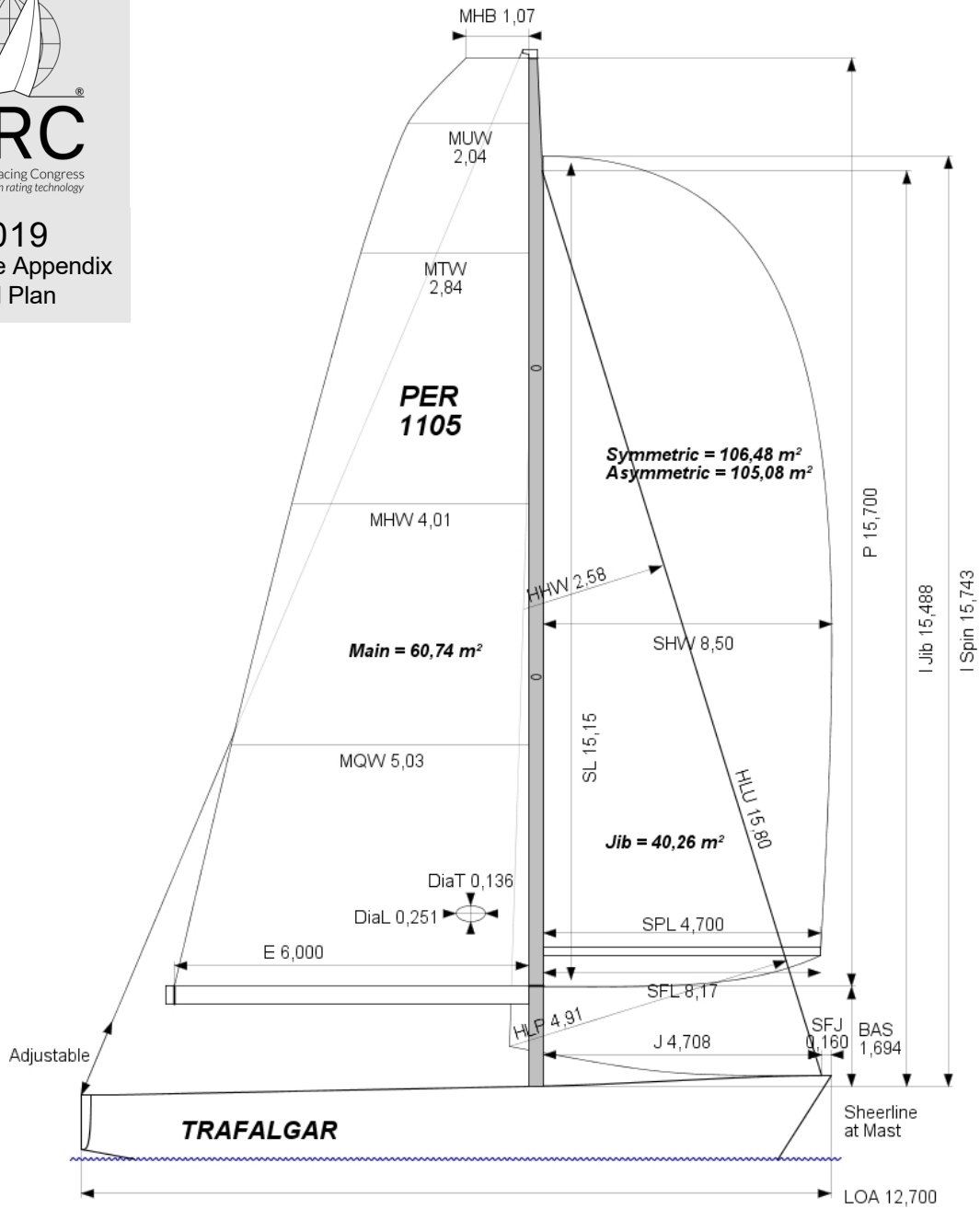
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
C3	Tank	PETROLEO	ALUMINO	30.0	8.30	0.00	-2.0
Id	Item	Weight	Distance	VCG Description			
B4	Ballast	200.0	7.60	-0.30 8 PANES DE PLOMO DE 25 C/U			
E4	Ballast	250.0	7.60	-0.30 10 PANES DE PLOMO DE 25 C/U			
E5	Ballast	600.0	6.87	-0.30 24 PANES DE PLOMO DE 25 C/U			
B5	Ballast	600.0	6.87	-0.30 24 PANES DE PLOMO DE 25 C/U			
E6	Ballast	150.0	5.96	-0.30 6 PANES DE PLOMO DE 25 C/U			
C4	Battery	32.0	7.85	0.00 2 X 12 V / 75 AMP			



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M 2	1.07	2.04	2.84	4.01	5.03	60.68	G LIZA	03/10/2019	NORTH	Carbon	3DI-USADA

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
M	0.09	0.72	1.38	2.58	3.78	4.91	15.80	104%	40.26	Y			09/10/2014	NORTH S	Kevlar	NUEVA DECLARADO
L-A	0.09	0.73	1.38	2.56	3.74	4.91	15.85	104%	40.19	Y			24/04/2014	NORTH S	Kevlar	REMEDIACION
J2.5	0.09	0.67	1.28	2.52	3.76	4.90	15.86	104%	39.75	Y		G LIZA	03/10/2019	NORTH S	Carbon	NUEVA
G1-LM2	0.08	0.72	1.37	2.54	3.70	4.85	15.62	103%	39.19	Y		G LIZA	03/10/2019	NORTH S	Carbon	USADA

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	15.15	15.15	15.15	8.50	8.17	106.48	G LIZA	03/10/2019	NORTH	Nylon	BL-USADO
S1.5	15.23	15.23	15.23	8.34	8.27	105.68			NORTH	Nylon	NUEVO DECLARADO
S1	15.11	15.11	15.11	8.09	8.19	102.12		21/01/2010	NORTH	Nylon	BL

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A1.5 HUV	16.06	14.45	15.25	8.29	8.17	105.09	asym	G LIZA	03/10/2019	NORTH	Nylon	NUEVA