

BOAT Name CHALLWA Sail Nr PER 066	GPH 571.7	HULL Length Overall 11.086m Maximum Beam 3.306m Displacement 4,204kg Draft 2.189m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.103% Fwd Accommodation No Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class J111 Designer JOHNSTONE Builder J-BOATS Series 01/2011 Age 07/2012 Age Allowance 0.260% Offset File j111per3.off - 20/06/2017 20:51:00 Measurement by G LIZA / L YARLEQ - 17/07/2012		IMSL 10.447m VCGD -0.201m Sink 18.16kg/mm RL 10.055m VCGM -0.188m WS 23.99m² LSM0 10.146m Displacement/Length ratio 4.0251



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Rating Office
Asociacion de Veleros
Oceanicos del Peru
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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	555.6			624.8		
Time on Time	1.0799			1.0804		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	649.4	508.0	452.2	838.1	624.8	548.5
Time on Time	1.0394	1.3288	1.4927	0.8054	1.0804	1.2307

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	968.6	790.7	697.6	665.9	652.5	642.8	628.2
52°	634.0	527.8	487.8	475.2	469.4	466.4	456.5
60°	598.3	508.1	476.2	462.1	455.4	451.5	440.8
75°	570.7	495.2	466.5	446.9	432.4	424.7	417.7
90°	577.5	490.0	465.9	443.4	421.3	403.7	385.1
110°	566.0	479.5	446.3	427.0	412.2	396.2	367.9
120°	578.2	484.1	447.4	414.8	392.9	377.1	345.8
135°	647.9	516.8	466.2	432.5	397.9	363.3	306.9
150°	769.0	610.8	516.0	469.1	443.9	414.7	345.2
Run VMG	888.0	705.3	595.8	541.4	512.6	478.8	398.6

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Crew Weight
Default 703kg
Maximum **635kg**
Minimum* **476kg**
**when applied by the NoR and SI*
Non Manual Pwr

Special Scoring
ToD ToT
Non Spin GPH **615.9 0.9742**
Non Spin OSN **598.8 1.0020**

Selected Courses							
Windward / Leeward	928.3	748.0	646.7	603.7	582.6	560.8	513.4
Circular Random	783.3	633.8	554.9	509.6	481.0	460.4	427.9
Coastal / Long Distance	924.3	703.0	586.9	527.2	494.9	464.9	410.9
Non Spinnaker	864.4	690.9	596.6	541.0	505.9	482.1	449.6

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	42.7°	41.6°	39.6°	38.0°	37.4°	36.9°	36.7°
Beat VMG	3.72	4.55	5.16	5.41	5.52	5.60	5.73
52°	5.68	6.82	7.38	7.58	7.67	7.72	7.89
60°	6.02	7.08	7.56	7.79	7.90	7.97	8.17
75°	6.31	7.27	7.72	8.06	8.33	8.48	8.62
90°	6.23	7.35	7.73	8.12	8.55	8.92	9.35
110°	6.36	7.51	8.07	8.43	8.73	9.09	9.79
120°	6.23	7.44	8.05	8.68	9.16	9.55	10.41
135°	5.56	6.97	7.72	8.32	9.05	9.91	11.73
150°	4.68	5.89	6.98	7.67	8.11	8.68	10.43
Run VMG	4.05	5.10	6.04	6.65	7.02	7.52	9.03
Gybe Angles	143.3°	145.3°	148.9°	151.5°	148.7°	146.3°	142.4°

Class Division Length
CDL = **10.252**

Storm Sails Areas
Heavy Weather Jib **28.15**
Storm Jib (JL=9.39) **10.43**
Storm Trysail **10.69**

Owner
GERMAN FUCHS
Paul Harris 297
Barranco, Lima - Peru

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

BOAT	
Name CHALLWA	Sail Nr PER 066
File PER066	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 15/06/2017		SG 1.0253	
FFM 1.097	FF 1.095	SFFP 0.398	
FAM 0.116	FA 0.120	SAFP 11.154	
W1 75.0	PD1 572.8	WD 11.100	
W2 75.0	PD2 571.3	GSA 1.0	
W3 75.0	PD3 578.8	RSA 1.0	
W4 75.0	PD4 572.2	PLM 9000.0	
LCF from stem on CL / on sheer		6.093 / 6.303	
Maximum beam station from stem		7.060	
RM Measured		114.3kg-m	
RM Default		106.5kg-m	
Limit of positive stability / Stab.Index		124.9° / 124.4	
Freeboard at mast at 4.512		1.070	



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RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows	Jib Furler Yes		
Fiber Rigging	Main Furler		
Lenticular Rigging	Without Backstay		
Articulated Bowsprit No			
P 13.770	E 4.435	MDT1 0.110	MW 0.167
IG 14.440	J 4.212	MDL1 0.167	GO 0.167
ISP 15.630	SFJ 0.300	MDT2 0.090	BD 0.135
BAS 1.695	SPL 0.000	MDL2 0.123	MWT 114.00
FSP 0.062	TPS 6.617	TL 0.880	MCG 4.730

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.412		
Type Feathering 2 blades	PBW 0.123		
Twin Screw	PIPA 0.0035		
ST1 0.042	ST3 0.180	ST5 0.283	
ST2 0.180	ST4 0.112	EDL 2.254	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.200	1.08	1.86	3.07	3.85	38.29	39.15	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL				
	18.09	15.03	16.56	9.70	8.75	131.24		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
0.08	0.70	1.31	2.40	3.45	4.45	14.47	33.92	Y		09/01/2015	Carbon	NUEVO
0.08	0.69	1.28	2.34	3.39	4.45	14.50	33.51	Y		18/09/2013	Carbon	
0.08	0.67	1.29	2.36	3.39	4.44	14.43	33.38	Y		28/04/2016	Carbon	
0.07	0.68	1.27	2.33	3.35	4.41	14.27	32.67	Y		15/07/2017	Carbon	USADA
0.06	0.54	1.03	1.96	2.81	3.59	13.50	25.58	Y		15/07/2017	Dacron	USADA

MEASUREMENT INVENTORY				
Measurer Patricio Gutierrez				
Date 15/06/2017				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
5	Engine	YANMAR	20HP	
Id	Item	Weight Description		

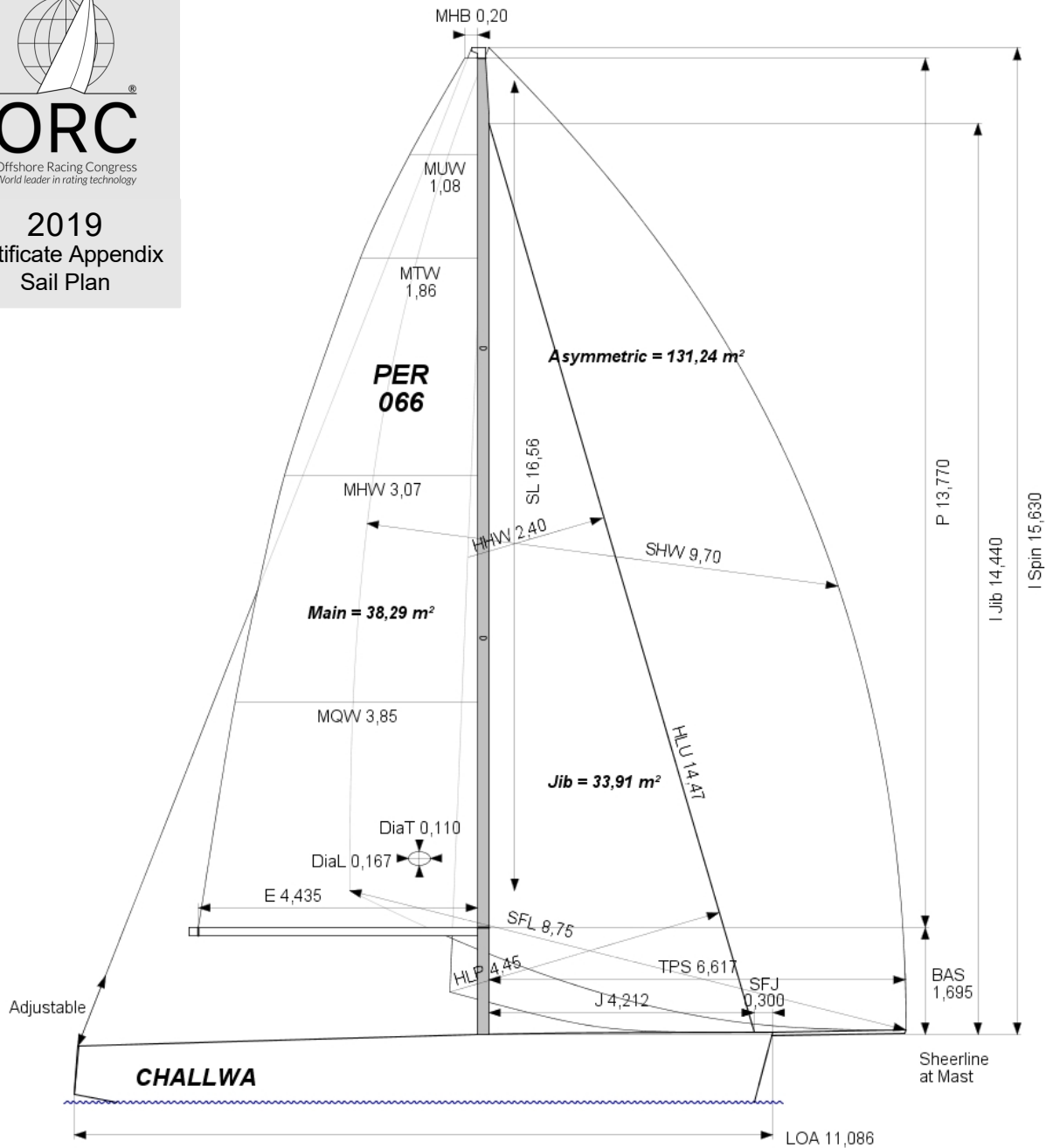
MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
6B	Tank	WATER	FLEXS	100.0	8.31			0-0 A BABOR MID	
6A	Tank	FUEL	PVC RIGIDO	80.0	8.31			24-0 SUBRE CRUJIA A	
Id	Item	Weight	Distance	VCG Description					
E6	Battery	12.0	5.21	12v 11placas A ESTRIBOR					
E6	Battery	12.0	5.21	12v 9 placas A ESTRIBOR					
9D	Misc	2.0	9.51	TANQUE GAS A BABOR POPA					
9C	Misc	3.0	6.81	COCINA A BABOR					
9B	Misc	6.0	6.31	REFRIGERADOR A BABOR					
9A	Misc	1.0	6.31	LAVADERO INOX A BABOR					



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1-18	0.20	1.08	1.86	3.07	3.85	38.29	G LIZA	21/09/2018	NORTH	Carbon	NUEVA

HEADSAILS (5)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
JT	0.08	0.70	1.31	2.40	3.45	4.45	14.47	106%	33.92	Y		G LIZA/L	09/01/2015	QUANTUM	Carbon	NUEVO
C2	0.08	0.69	1.28	2.34	3.39	4.45	14.50	106%	33.51	Y		DECLAR	18/09/2013	QUANTUM	Carbon	
J-1	0.08	0.67	1.29	2.36	3.39	4.44	14.43	105%	33.38	Y		G LIZA	28/04/2016	QUANTUM	Carbon	
J1.5-2	0.07	0.68	1.27	2.33	3.35	4.41	14.27	105%	32.67	Y		G LIZA/L	15/07/2017	QUANTUM	Carbon	USADA
STAYSA	0.06	0.54	1.03	1.96	2.81	3.59	13.50	85%	25.58		Y	DECLAR	15/07/2017	QUANTUM	Dacron	USADA

SYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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ASYMMETRIC SPINNAKERS (4)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A2-18	18.09	15.03	16.56	9.70	8.75	131.24	asym	G LIZA	06/06/2018	QUANTUM	Nylon	verde limon/fucsia
A3	17.93	15.01	16.47	8.68	9.30	120.84	asym	G LIZA/L YAR	14/09/2013	QUANTUM	Nylon	amarillo
A5	16.38	14.76	15.57	6.78	8.96	93.63	asym	G LIZA/L	14/09/2013	QUANTUM	Nylon	blanco
COD 0	16.01	14.44	15.23	6.56	8.72	88.72	asym	G LIZA/L	15/05/2014	QUANTUM	Nylon	gris grueso