

BOAT Name HIGH RISK Sail Nr ECU-18943	GPH 609,1	HULL Length Overall 13,042m Maximum Beam 4,109m Displacement 6.793kg Draft 2,423m IMS Reg. Division Performance Dynamic Allowance 0,000% Fwd Accommodation No Hull Construction Carbon Carbon Rudder Yes Crew Arm Extension 0,00
GENERAL Class IOR 43 Designer BOB SMITH Builder GERAGHTY Series 12/1985 Age 12/1985 Age Allowance 0,487% Offset File US18641.OFF - 01/10/2017 09:29:30 Measurement by P. GUTIERREZ - 20/04/2016		IMSL 9,848m VCGD -0,136m Sink 21,84kg/mm RL 8,986m VCGM -0,073m WS 29,02m² LSM0 9,722m Displacement/Length ratio 7,3926



World Leader in Rating Technology

2017
ORC International
Certificate

Rating Office
Federación Ecuatoriana
de Vela
Patricio D. Gutiérrez - RO
gutierrez@yca.org.ar



SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	591,5			663,5	
Time On Time	1,0143			1,0173		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	708,0	536,9	473,9	921,3	668,9	571,2
Time on Time	0,9534	1,2573	1,4244	0,7327	1,0091	1,1817

TIME ALLOWANCES	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1035,1	853,0	751,5	704,4	681,0	666,6	657,2
52°	671,8	558,0	501,5	482,3	473,2	468,0	463,7
60°	631,0	527,5	484,3	466,4	457,3	451,6	446,1
75°	597,7	506,3	471,4	451,3	436,2	427,2	419,7
90°	602,7	508,7	472,5	451,0	432,2	417,6	400,4
110°	645,1	523,1	472,8	444,7	426,2	415,8	397,3
120°	664,8	537,4	479,6	450,1	423,7	403,7	382,6
135°	737,5	590,7	506,9	468,8	442,5	418,3	377,0
150°	871,3	684,7	574,1	506,3	470,0	445,6	402,8
Run VMG	1006,1	790,7	662,9	579,3	525,0	483,7	435,1

Certificate
Number **189431**
ORC Ref **ECU00005617**
Issued On **04/10/2017**
VPP Ver. **2017 1.00**
Valid until **31/03/2018**

Crew Weight
Declared **700kg**
Default* **661kg**
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **637,5 0,9412**
Non Spin OSN **619,7 0,9682**

Selected Courses	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Windward / Leeward	1020,6	821,8	707,2	641,9	603,0	575,1	546,1
Circular Random	848,0	680,7	590,3	537,5	505,0	483,7	457,9
Ocean for PCS	1043,6	801,2	664,1	580,2	525,8	488,3	437,9
Non Spinnaker	898,3	716,7	617,3	558,3	521,5	497,3	467,9

Sails Limitations
Headsails **5** | Spinnakers **3**

Velocity Prediction in Knots for True Wind Speeds	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	43,9°	42,9°	42,3°	41,3°	40,1°	39,3°	39,1°
Beat VMG	3,48	4,22	4,79	5,11	5,29	5,40	5,48
52°	5,36	6,45	7,18	7,46	7,61	7,69	7,76
60°	5,71	6,82	7,43	7,72	7,87	7,97	8,07
75°	6,02	7,11	7,64	7,98	8,25	8,43	8,58
90°	5,97	7,08	7,62	7,98	8,33	8,62	8,99
110°	5,58	6,88	7,61	8,09	8,45	8,66	9,06
120°	5,42	6,70	7,51	8,00	8,50	8,92	9,41
135°	4,88	6,09	7,10	7,68	8,14	8,61	9,55
150°	4,13	5,26	6,27	7,11	7,66	8,08	8,94
Run VMG	3,58	4,55	5,43	6,21	6,86	7,44	8,27
Gybe Angles	145,0°	148,7°	149,9°	154,3°	167,1°	180,0°	180,0°

Class Division Length
CDL = **9,418**

Storm Sails Areas
Heavy Weather Jib **40,71**
Storm Jib (JL=11,29) **15,08**
Storm Trysail **12,80**

Owner
RAFAEL BODERO GOMEZ


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

Signature

BOAT	
Name HIGH RISK	Sail Nr ECU-18943
File ECU18943	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 03/10/2017		SG 1,0253	
FFM 1,338	FF 1,339	SFFP 0,803	
FAM 0,985	FA 0,986	SAFP 11,435	
W1 100,0	PD1 470,7	WD 11,870	
W2 100,0	PD2 476,0	GSA 1,0	
W3 100,0	PD3 470,5	RSA 1,0	
W4 100,0	PD4 473,3	PLM 9000,0	
LCF from stem on CL / on sheer		6,883 / 7,103	
Maximum beam station from stem		7,169	
RM Measured		197,8kg·m	
RM Default		176,6kg·m	
Limit of positive stability / Stab.Index		117,5° / 115,7	
Freeboard at mast at 5,117		1,145	

RIG			
Forestay Tension Aft	Spreaders 4		
Inner Stay Adjustable	Runners 2		
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 Bowsprit No			
P 15,450	E 4,736	MDT1 0,131	MW 0,141
IG 17,314	J 4,997	MDL1 0,193	GO 0,156
ISP 17,439	SFJ 0,120	MDT2 0,119	BD 0,235
BAS 1,649	SPL 4,985	MDL2 0,142	MWT 0,00
FSP 0,044	TPS	TL 2,370	MCG 0,000




World Leader in Rating Technology

2017

IMS Measurement Certificate

Certificate

Number **189431**
 ORC Ref **ECU00005617**
 Issued On **04/10/2017**
 VPP Ver. **2017 1.00**
 Valid until **31/03/2018**



MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0,440		
Type Feathering 2 blades	PBW 0,113		
Twin Screw No	PIPA 0,0354		
PSA 22,000	PHL 0,146	ST3 0,120	ESL 1,050
PSD 0,440	ST1 0,027	ST4 0,050	
PHD 0,062	ST2 0,119	ST5 0,270	

COMMENTS	
CAMBIO ARMADOR AMTES US-18943	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,160	0,95	1,71	2,83	3,86	41,93	42,44	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	17,35	17,35	17,35	9,17	9,16	132,55		SL · (SFL + 4·SHW) / 6	
Asymmetric Not Available									

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
0,07	0,88	1,74	3,52	5,40	7,33	17,58	63,20			20/04/2016	Kevlar	REMEDIACION

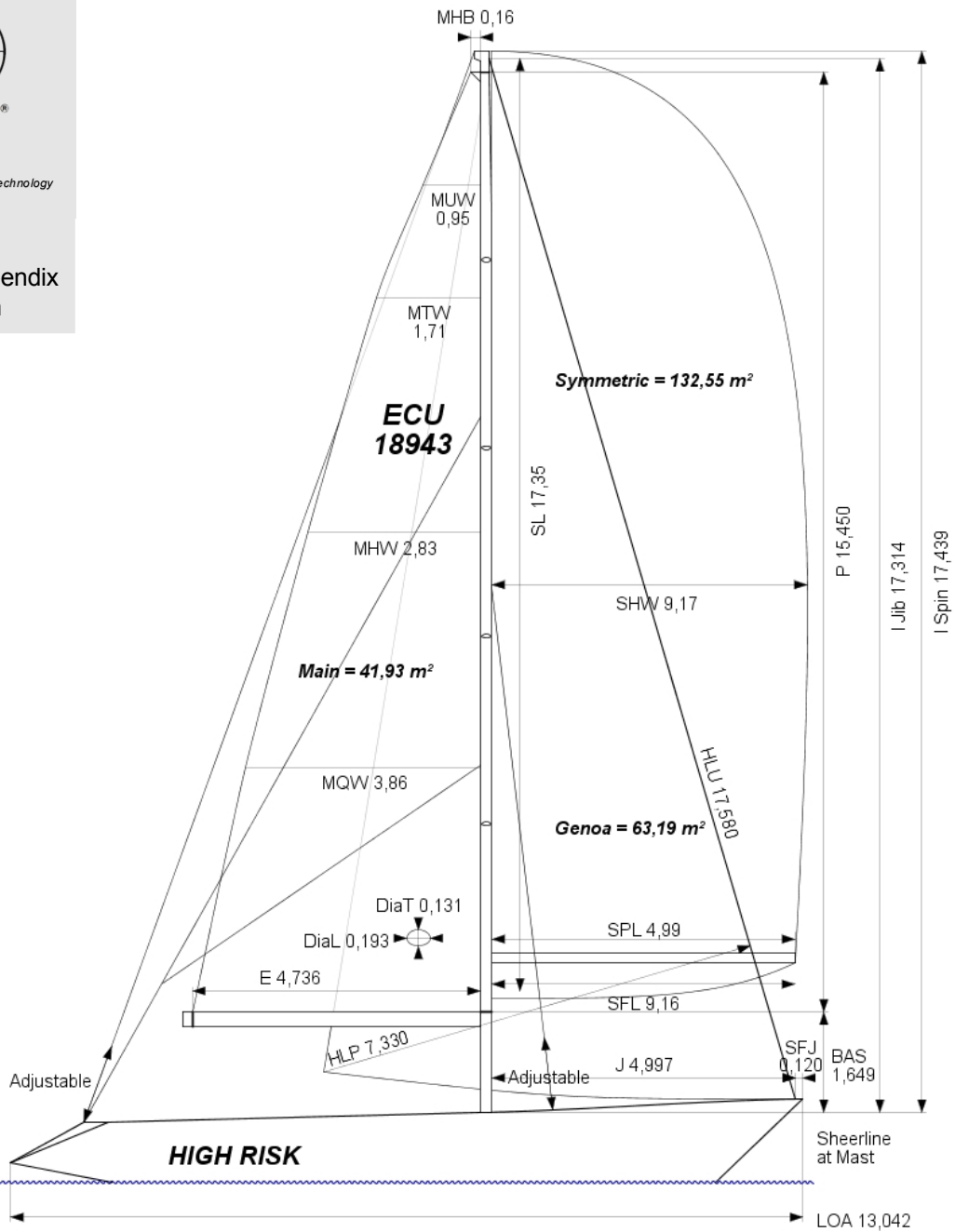
MEASUREMENT INVENTORY				
Measurer PATRICIO GUTIERREZ P G				
Date 03/10/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
C4	Engine	MIKUNI		
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

MEASUREMENT INVENTORY								
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>
E5	Tank	PETROLEO	PVC	100,0	6,80	0,00	20,0	
B5	Tank	AGUA	PVC	100,0	6,80	0,00	0,0	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				
C4	Battery	15,0	8,90	0,00 1 BAT. - 12 V / 70 AMP				
C5	Battery	40,0	6,80	0,00 2 BAT. - 12V / 135 AMP				



World Leader in Rating Technology

2017
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
MN	0,160	0,95	1,71	2,83	3,86	41,93	A V M	20/04/2016	ELVSTROM	Kevlar	REMEDICION

HEADSAILS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1	0,07	0,88	1,74	3,52	5,40	7,33	17,58	147%	63,20			A V M	20/04/2016	ELVSTROM	Kevlar	REMEDICION

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	17,35	17,35	17,35	9,17	9,16	132,55	A V M	20/04/2016	ELVSTROM	Nylon	REMEDICION
S2	16,58	16,58	16,58	7,88	8,50	110,59	P GUTIERREZ	03/10/2017	ELVSTROM	Nylon	AZUL

ASYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
----	-----	-----	----	-----	-----	------	------	----------	-----------	-------------	----------	---------