

BOAT Name PISCO SOUR Sail Nr ECU-2110	GPH 537,5	HULL Length Overall 13,840m Maximum Beam 3,500m Displacement 8.031kg Draft 2,833m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,000% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder Yes Crew Arm Extension
GENERAL Class EVENTO 46 Designer J/V Builder INDIANA YACHTING Series 01/2004 Age 05/2004 Age Allowance 0,422% Offset File J_V46.OFF - 22/09/2011 01:05:32 a.m. Measurement by P. GUTIERREZ - 28/09/2017		IMSL 12,028m VCGD -0,237m Sink 26,93kg/mm RL 11,297m VCGM -0,241m WS 34,82m² LSMO 11,560m Displacement/Length ratio 5,1987



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2017
ORC International
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Rating Office
Federación Ecuatoriana
de Vela
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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	524,1			589,8		
Time On Time	1,1448			1,1445		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	615,9	476,5	421,5	805,0	593,9	513,6
Time on Time	1,0959	1,4165	1,6015	0,8385	1,1365	1,3143

TIME ALLOWANCES	Wind Velocity						
	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	904,3	738,9	659,9	628,2	611,9	598,2	591,2
52°	587,3	485,2	447,9	436,8	431,1	426,0	419,1
60°	549,6	462,0	433,4	423,1	417,1	413,3	403,1
75°	517,6	447,8	421,0	403,9	394,7	388,8	379,1
90°	516,4	446,7	419,4	397,1	376,7	364,1	353,4
110°	546,3	452,1	416,8	391,2	374,4	360,0	332,4
120°	567,0	463,2	424,0	396,5	368,9	347,9	323,0
135°	636,5	510,3	446,8	418,0	392,6	366,3	310,6
150°	760,3	605,4	508,3	451,2	421,8	398,2	349,7
Run VMG	877,9	699,0	587,0	516,3	471,7	437,0	390,4

Certificate
Number **FVEC11**
ORC Ref **ECU00005608**
Issued On **04/10/2017**
VPP Ver. **2017 1.00**
Valid until **31/03/2018**

Crew Weight
Declared **900kg**
Default* **846kg**
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **562,4** **1,0669**
Non Spin OSN **549,5** **1,0920**

Selected Courses	Windward / Leeward						
	891,1	718,9	623,4	572,3	541,8	517,6	490,8
Circular Random	741,2	598,0	521,5	477,0	449,0	429,9	403,8
Ocean for PCS	916,2	706,0	587,6	515,1	467,5	433,6	386,1
Non Spinnaker	784,9	629,4	545,1	495,4	464,0	442,9	415,5

Sails Limitations
Headsails **7** Spinnakers **5**

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	43,4°	42,6°	40,9°	40,0°	39,1°	38,4°	38,6°
Beat VMG	3,98	4,87	5,46	5,73	5,88	6,02	6,09
52°	6,13	7,42	8,04	8,24	8,35	8,45	8,59
60°	6,55	7,79	8,31	8,51	8,63	8,71	8,93
75°	6,96	8,04	8,55	8,91	9,12	9,26	9,50
90°	6,97	8,06	8,58	9,07	9,56	9,89	10,19
110°	6,59	7,96	8,64	9,20	9,62	10,00	10,83
120°	6,35	7,77	8,49	9,08	9,76	10,35	11,15
135°	5,66	7,05	8,06	8,61	9,17	9,83	11,59
150°	4,73	5,95	7,08	7,98	8,53	9,04	10,29
Run VMG	4,10	5,15	6,13	6,97	7,63	8,24	9,22
Gybe Angles	142,2°	145,1°	147,4°	154,4°	163,6°	180,0°	180,0°

Class Division Length
CDL = **11,664**

Storm Sails Areas
Heavy Weather Jib **43,26**
Storm Jib (JL=11,63) **16,02**
Storm Trysail **21,52**

Owner
ANTONIO GINATIA


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

Signature

BOAT	
Name PISCO SOUR	Sail Nr ECU-2110
File ECU2110	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 28/09/2017	SG	1,0253
FFM 1,492	FF 1,492	SFFP 0,107
FAM 1,194	FA 1,195	SAFP 13,640
W1 145,0	PD1 459,5	WD 11,090
W2 145,0	PD2 459,8	GSA 1,0
W3 145,0	PD3 459,5	RSA 1,0
W4 145,0	PD4 459,5	PLM 9000,0
LCF from stem on CL / on sheer		7,612 / 7,797
Maximum beam station from stem		8,724
RM Measured		275,5kg·m
RM Default		260,9kg·m
Limit of positive stability / Stab.Index		134,3° / 141,6
Freeboard at mast at 5,265		1,383

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 18,300	E 6,720	MDT1 0,135	MW 0,225
IG 17,580	J 5,035	MDL1 0,270	GO 0,315
ISP 17,615	SFJ 0,230	MDT2 0,122	BD 0,335
BAS 1,710	SPL 5,035	MDL2 0,225	MWT 259,00
FSP 0,072	TPS	TL 1,700	MCG 6,970




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IMS Measurement Certificate

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD	0,450
Type Folding 2 blades	PBW	
Twin Screw No	PIPA	0,0039
ST1 0,047	ST3 0,260	ST5 0,340
ST2 0,260	ST4 0,112	EDL 1,360

COMMENTS	
EST Y FBDS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,220	1,57	2,75	4,43	5,63	74,68	76,61	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	18,50	18,50	18,50	8,98	8,80	137,89			
Asymmetric	SLU	SLE	SL	SHW	SFL			AS · (SFL + 4·SHW) / 6	
	17,40	16,83	17,11	7,30	9,66	110,85			

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	0,77	1,46	2,85	4,00	5,27	17,44	47,71	Y		24/04/2016	Carbon	REMEDIACION
0,09	0,75	1,45	2,74	4,00	5,25	17,56	47,48	Y		22/09/2011	Carbon	
0,12	0,73	1,40	2,69	3,94	5,24	17,40	46,44	Y		03/06/2012	Carbon	

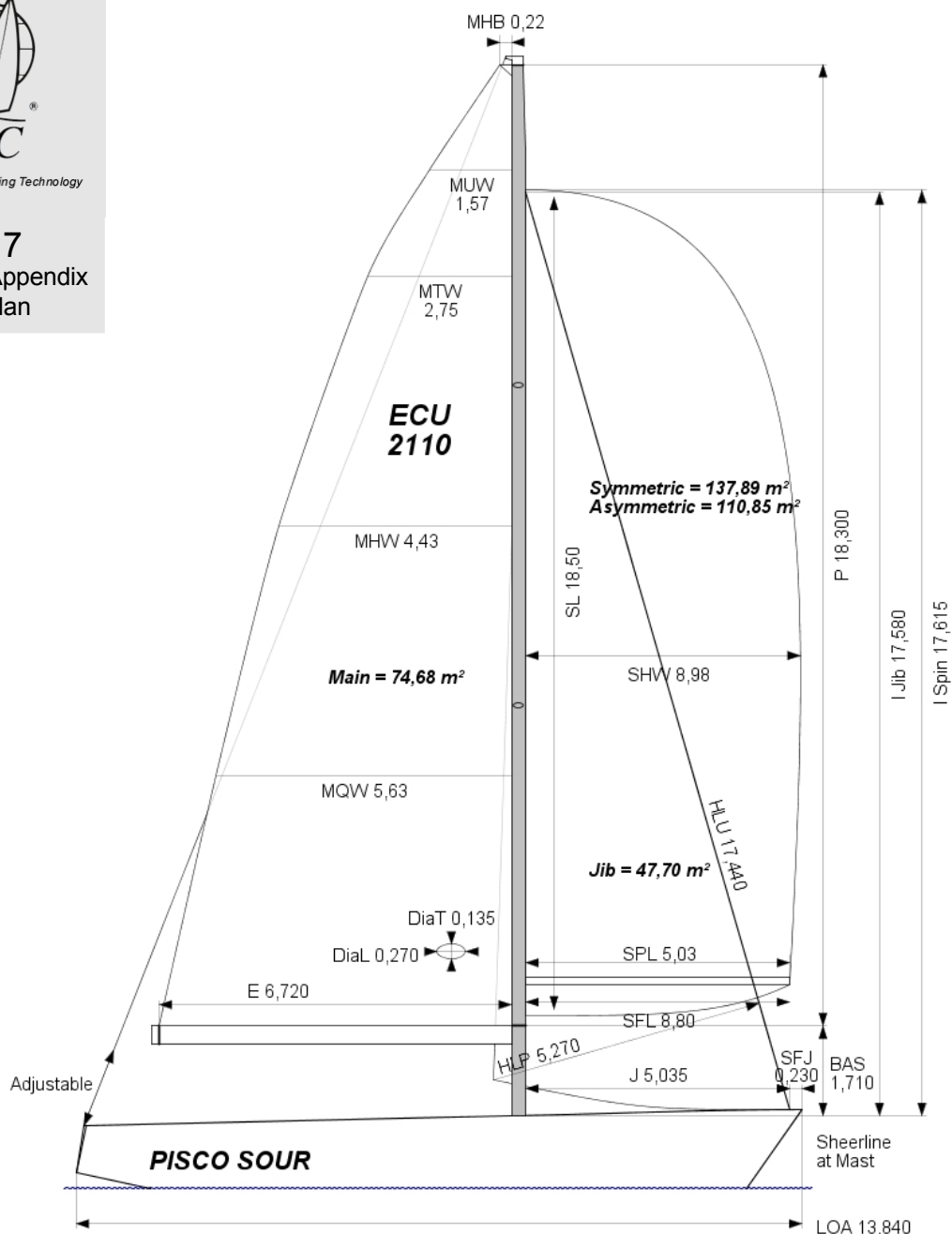
MEASUREMENT INVENTORY				
Measurer PATRICIO GUTIERREZ P G				
Date 28/09/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
3	Engine	YANMAR		
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

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>	
4B	Tank	PETROL	PALSTICO	90,0	9,49	0,10	±2,0	a popa motor	
4A	Tank	AGUA	ODRE	100,0	6,54	0,10	0,0	a lado babor	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					
1E	Ballast		13,34	-0,15 8 barras de plomo					
1D	Ballast		13,34	-0,15 16 barras de plomo					
1C	Ballast		8,34	-0,15 19 barras de plomo					
1B	Ballast	1181,0	8,34	-0,15 25 barras de plomo					
1A	Ballast		7,24	-0,15 14 barras de plomo					
2B	Battery	15,0	7,93	0,10 01 bateria 12 placasr					
2A	Battery	15,0	7,93	0,10 01 bateria 12 placas					



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
M1	0,220	1,57	2,75	4,43	5,63	74,68	A V M	24/04/2016	NORTH	Carbon	REMEDICION					
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
L-M-1	0,08	0,77	1,46	2,85	4,00	5,27	17,44	105%	47,71	Y		A V M	24/04/2016	NORTH	Carbon	REMEDICION
K C L	0,09	0,75	1,45	2,74	4,00	5,25	17,56	104%	47,48	Y		F	22/09/2011	NORTH	Carbon	
K C M	0,12	0,73	1,40	2,69	3,94	5,24	17,40	104%	46,44	Y		F	03/06/2012	NORTH	Carbon	
SYMMETRIC SPINNAKERS (5)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
S1.5	18,50	18,50	18,50	8,98	8,80	137,89	A V M	22/08/2016	NORTH	Nylon	NUEVO					
S2B	17,16	17,16	17,16	8,89	8,65	126,44	R PESCHIERA	07/10/2014	NORTH	Nylon	REMEDICION					
S3	17,34	17,34	17,34	8,29	8,73	121,06	F CARLIER	03/06/2012	NORTH	Nylon	RUN					
S1B	17,07	17,07	17,07	8,47	8,60	120,86	A V M	24/04/2016	NORTH	Nylon	REMEDICION					
COD O	17,18	17,18	17,18	6,40	8,56	97,81	F CARLIER	03/06/2012	NORTH	Nylon	VMG					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A0	17,40	16,83	17,11	7,30	9,66	110,85	asym	R PESCHIERA	08/10/2014	NORTH	Unknown	NUEVA				