

BOAT
Name ANDREINA Sail Nr PER 2355

GPH
639,9

HULL					
Length Overall	12,260 m				
Maximum Beam	3,875 m				
Displacement	8.493 kg				
Draft	2,115 m				
IMS Reg. Division	Cruiser/Racer				
Dynamic Allowance	0,752%				
Fwd Accommodation	Yes				
Hull Construction	Cored				
Carbon Rudder	No				
Trim Tab	No				
IMS L	10,552	VCGD	-0,111	VCGM	-0,015
Sink	22,69 kg/mm	Wetted Area	31,44 m²		



2009
ORC International
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GENERAL
Class SUN LEGEND 41
Designer PETERSON
Builder JEANNEAU
Series 04/1985
Age 05/1989
Age Allowance 1,300%
Offset File IJNN41.OFF - 25/11/2008 18:08:36
Measurement by Carrion - 15/12/2008

SCORING OPTIONS	OFFSHORE			INSHORE		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	639,9			713,4		
Time On Time	0,9376			0,9462		
Performance Line	PLT	PLD		PLT	PLD	
	0,822	103,9		0,940	266,4	
Triple Number	Low	Medium	High	Low	Medium	High
	0,9113	1,1960	1,3483	0,6907	0,9620	1,1300

Rating Office
Federacion Peruana Vela
Bolognesi 761, Callao
5, Peru
Aguiles Rubina, Rat. Ofi.
rubina@terra.com.pe

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1096,5	894,4	785,8	736,1	707,1	689,2	672,2
52°	697,7	574,6	530,0	508,8	496,5	488,4	480,1
60°	648,0	547,6	511,9	490,0	478,6	471,8	464,7
75°	607,6	529,5	497,5	474,9	460,6	452,1	443,7
90°	614,3	524,2	487,6	465,7	454,7	448,8	428,8
110°	634,3	534,9	496,5	469,8	451,0	434,6	414,5
120°	676,6	553,6	508,5	478,4	457,5	439,5	407,2
135°	781,2	620,1	538,2	501,7	475,1	456,1	420,9
150°	931,8	729,2	606,8	538,7	504,0	478,0	442,6
Run VMG	1075,9	842,1	700,7	609,0	552,0	516,2	468,9

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VPP Ver. 1.11
Valid until 30/03/2010

Crew Weight
Declared 764 kg
Default* 764 kg

Special Scoring	
ToD	ToT
Double Handed 641,7	0,9350
Non Spinnaker 677,2	0,8860

Selected Courses							
Windward / Leeward	1105,6	880,9	755,1	681,8	637,4	609,5	575,6
Circular Random	888,5	714,0	620,2	565,8	532,4	510,6	483,2
Ocean for PCS	949,8	747,1	634,4	566,3	522,2	491,5	448,5
Non Spinnaker	957,9	762,4	655,4	592,1	552,6	527,0	495,9

Sails Limitations		
Genoa	Jibs	Spinnakers
3	2	3
Spinnaker configuration Symmetric		

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	45,1°	44,8°	42,5°	39,9°	38,3°	37,3°	36,5°
Beat VMG	3,28	4,02	4,58	4,89	5,09	5,22	5,36
52°	5,16	6,27	6,79	7,08	7,25	7,37	7,50
60°	5,56	6,57	7,03	7,35	7,52	7,63	7,75
75°	5,93	6,80	7,24	7,58	7,82	7,96	8,11
90°	5,86	6,87	7,38	7,73	7,92	8,02	8,39
110°	5,68	6,73	7,25	7,66	7,98	8,28	8,68
120°	5,32	6,50	7,08	7,52	7,87	8,19	8,84
135°	4,61	5,81	6,69	7,18	7,58	7,89	8,55
150°	3,86	4,94	5,93	6,68	7,14	7,53	8,13
Run VMG	3,35	4,28	5,14	5,91	6,52	6,97	7,68
Gybe Angles	143,4°	146,4°	148,4°	160,1°	169,8°	173,6°	175,9°

Storm Sails Areas
Heavy Weather Jib 36,03
Storm Jib (JL=10,62) 13,35
Storm Trysail 11,10

Owner
Enrique Chiappori
Osa Mayor 230
Surco, Lima
fchiappori@maquinarias.c

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

Signature

BOAT	
Name ANDREINA	Sail Nr PER 2355
File ANDREINA.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 15/12/2008		SG 1,0250
FFM 1,275	FF 1,275	SFFP 0,524
FAM 1,020	FA 1,020	SAFP 11,030
W1 23,750	PD1 57,5	WD 12,400
W2 47,500	PD2 115,0	GSA 38,0
W3 71,250	PD3 172,5	RSA 7800,0
W4 95,000	PD4 230,0	PLM 2130,0
Maximum beam station from stem		6,976
RM Measured / Default		190,0 / 174,7
Limit of positive stability		116,3°
Stability Index		120,4
Freeboard at mast at 4,610		1,138

RIG				
Forestay Tension Aft		Spreaders 2		
Inner Forestay None Fitted		Runners 0		
Carbon Mast No		Jumpers None		
Taper Hollows No		w/o Backstay No		
P 14,090	E 4,500	MDT1 0,140	TL 0,000	
IG 16,125	J 4,610	MDL1 0,210	MWT	
ISP 16,085	SFJ 0,000	MDT2 0,140	MCG	
SPS 2,865	SPL 4,370	MDL2 0,210	CPW 2,500	
BAS 1,765	TPS	MW 0,210	BD 0,180	
BAL 0,050	FSP 0,080	GO 0,270	BWT	



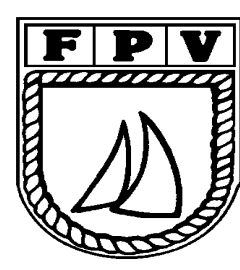
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IMS Measurement
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HEAVY ITEMS			
Bow Thruster No	Generator Yes	Air Condition Yes	
Windlass Yes	Jib Furler No	Desalinator No	
Heavy Deck No	Main Furler No		
Headliners Yes	Water Heater Yes		
Anchor Weight	Heavy Items Adjustment	0,0030	
Anchor LCG	Total Gyradius Adjustment	0,0290	

PROPELLER			
Installation Out of Aperture	PRD 0,475		
Type Folding	PBW 0,120		
Twin Screw No	PIPA 0,0053		
PSA 12,000	PHL 0,120	ST3 0,120	ESL 1,100
PSD 0,030	ST1 0,025	ST4 0,060	
PHD 0,078	ST2 0,102	ST5 0,220	

Certificate

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MIZZEN RIG AND SAILS	
N/A	

WATER BALLAST	
N/A	

COMMENTS	
N/A	

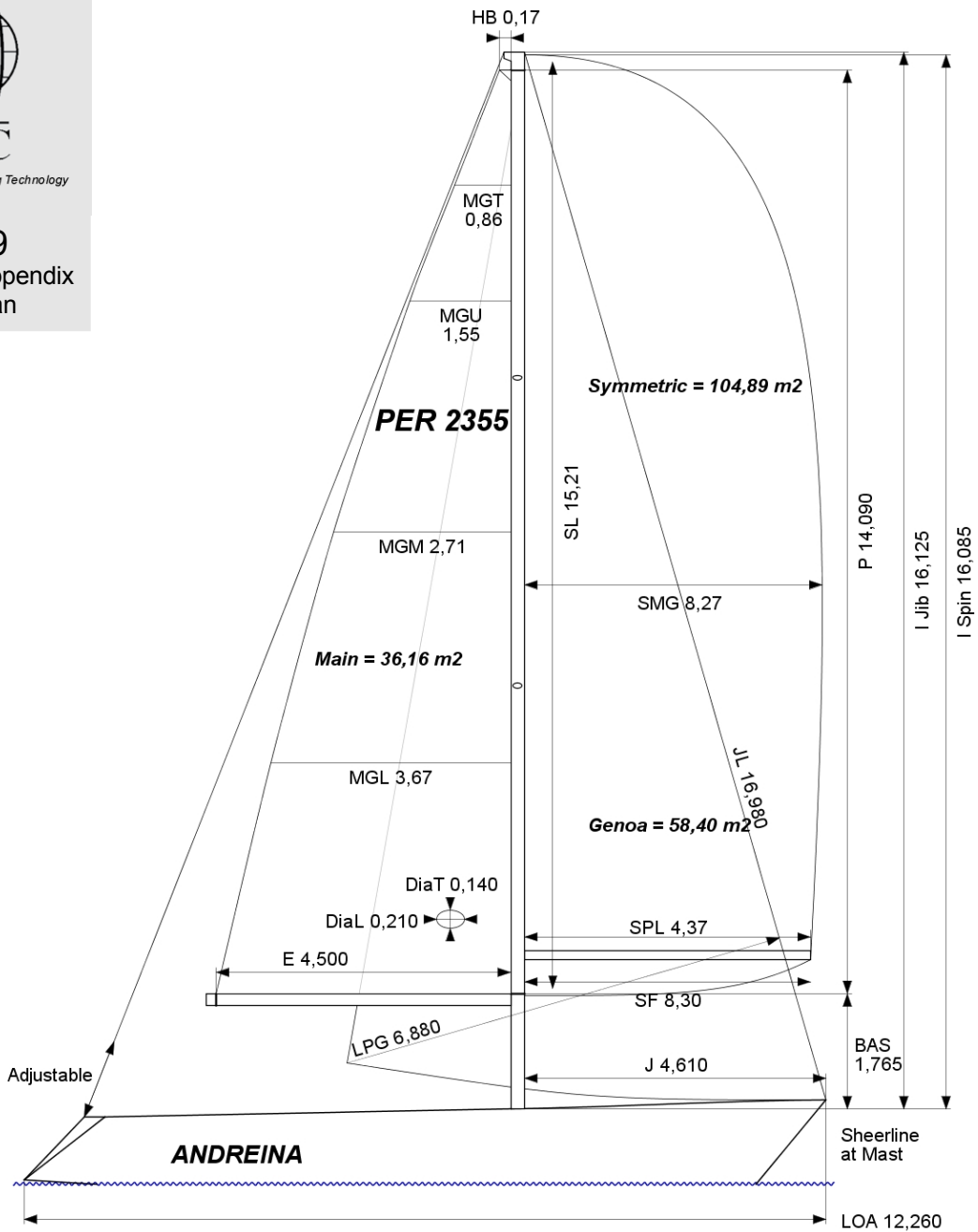
CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,175	0,86	1,55	2,71	3,67	0,00	36,16	P/8 · (E + 2·MGL+ 2·MGM + 1,5·MGU + MGT + 0,5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG	Area	Formula
	0,00	0,86	1,72	3,44	5,16	16,98	6,88	58,40	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)
Symmetric	SL	SMG	SF				Area	Formula	
	15,21	8,27	8,30				104,89	SL · (SF + 4·SMG) / 6	



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC	0,175	0,86	1,55	2,71	3,67	0,00	36,16					* Copied from legacy

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC						6,88	0,00	149%	58,40					* Copied from

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC	15,21	8,27	0,00	104,89					* Copied from legacy *

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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