

BOAT	GPH	HULL
Name SARANDREA Sail Nr ESP-3166	693.5	Length Overall 9.147m Maximum Beam 3.232m Displacement 3,427kg Draft 1.827m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.314% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL		IMSL 8.682m VCGD 0.202m Sink 15.35kg/mm RL 6.902m VCGM 0.252m WS 20.15m² LSM0 8.810m Displacement/Length ratio 5.0117
Class FIRST 310 Designer FINOT Builder BENETEAU Series 01/1991 Age 02/1992 Age Allowance 0.487% Offset File E141.OFF - 22/01/2015 21:27:06 Measurement by - 08/05/2007		



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	672.6			752.4		
Time on Time	0.8921			0.8971		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	801.9	611.4	547.6	1037.7	755.8	660.0
Time on Time	0.8417	1.1040	1.2327	0.6505	0.8931	1.0227

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1184.2	979.3	864.4	803.7	786.6	783.5	799.1
52°	769.1	650.0	582.8	555.1	546.1	543.2	545.9
60°	725.3	617.1	562.8	539.7	529.7	526.2	526.3
75°	694.8	592.8	548.4	526.5	511.9	502.4	497.0
90°	704.0	592.2	539.4	517.6	505.0	488.3	465.2
110°	708.4	584.6	533.4	506.1	481.6	462.1	441.3
120°	733.6	601.1	540.5	511.3	485.3	459.5	420.4
135°	817.1	661.4	571.3	530.4	504.2	477.8	426.6
150°	964.1	757.1	639.6	565.8	529.8	505.2	456.2
Run VMG	1113.2	874.1	736.5	643.5	577.9	538.0	489.7
Selected Courses							
Windward / Leeward	1148.7	926.7	800.4	723.6	682.3	660.8	644.4
Circular Random	960.6	772.9	672.1	614.0	579.3	557.9	534.0
Coastal / Long Distance	1145.2	869.7	719.8	631.9	589.1	556.7	504.2
Non Spinnaker	1013.5	810.1	699.7	635.4	596.6	572.6	545.8

Certificate

Number **316601**
ORC Ref **ESP00004372**
Issued On **23/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default **575kg**
Maximum **400kg**
Minimum* **300kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	705.6	0.8503
Double H.OSN	686.2	0.8744
Non Spin GPH	722.8	0.8301
Non Spin OSN	698.8	0.8586

Sails Limitations

Headsails	Spinnakers
1	3

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	44.0°	41.9°	41.2°	40.4°	39.9°	39.9°	41.2°
Beat VMG	3.04	3.68	4.16	4.48	4.58	4.59	4.51
52°	4.68	5.54	6.18	6.49	6.59	6.63	6.59
60°	4.96	5.83	6.40	6.67	6.80	6.84	6.84
75°	5.18	6.07	6.56	6.84	7.03	7.17	7.24
90°	5.11	6.08	6.67	6.96	7.13	7.37	7.74
110°	5.08	6.16	6.75	7.11	7.47	7.79	8.16
120°	4.91	5.99	6.66	7.04	7.42	7.83	8.56
135°	4.41	5.44	6.30	6.79	7.14	7.54	8.44
150°	3.73	4.76	5.63	6.36	6.80	7.13	7.89
Run VMG	3.23	4.12	4.89	5.59	6.23	6.69	7.35
Gybe Angles	146.6°	150.7°	153.2°	158.5°	180.0°	180.0°	180.0°

Class Division Length

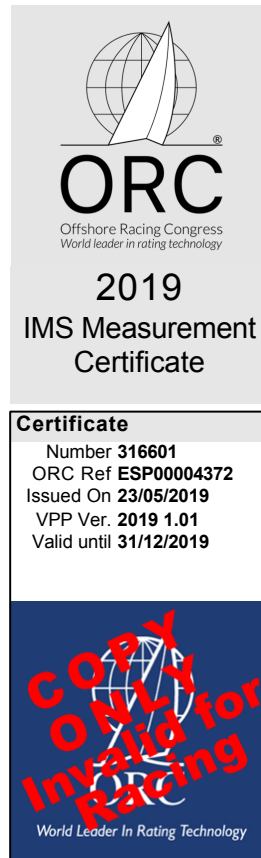
CDL = 7.792

Storm Sails Areas

Heavy Weather Jib	18.06
Storm Jib (JL=7.52)	6.69
Storm Trysail	7.69

Owner

BOAT										INCLINING TEST AND FREEBOARDS													
Name SARANDREA					Sail Nr ESP-3166					Inclining Test Current Inclining													
File E3166					Data in meters/kilograms					Flotation date 11/05/2015					SG 1.0250								
RIG																							
Forestay Tension Aft					Spreaders 1					FFM 1.183					FF 1.217								
Inner Stay None Fitted					Runners 0					FAM 0.975					FA 0.963								
Carbon Mast No					Jumper Struts None					W1 41.1					PD1 476.2								
Taper Hollows No					Jib Furler Yes					W2 41.1					PD2 477.9								
Fiber Rigging No					Main Furler No					W3 41.1					PD3 471.5								
Lenticular Rigging No					Without Backstay No					W4 41.1					PD4 469.7								
Articulated Bowsprit No										LCF from stem on CL / on sheer					5.361 / 5.594								
										Maximum beam station from stem					6.091								
										RM Measured					66.6kg-m								
										RM Default					72.0kg-m								
										Limit of positive stability / Stab.Index					103.2° / 99.9								
										Freeboard at mast at 3.525					1.078								
MIZZEN RIG AND SAILS										PROPELLER													
N/A										Installation Shaft exposed													
										Type Folding 2 blades													
										Twin Screw No													
										PRD 0.370													
										PBW													
										PIPA 0.0047													
										PSA 15.500													
										PHL 0.125													
										ST3 0.101													
										ESL 1.065													
										PSD 0.025													
										ST1 0.027													
										ST4 0.057													
										PHD 0.069													
										ST2 0.101													
										ST5 0.225													
COMMENTS										MOVABLE BALLAST													
										N/A													
										CENTERBOARD													
										N/A													
SAILS (Maximum Areas)																							
Mainsail						MHB		MUW		MTW		MHW		MQW		Area		Area (r)		Formula			
						0.150		0.86		1.43		2.41		3.19		25.59		26.04		P/8 · (E + 2 · MQW + 2 · MHW + 1.5 · MTW + MUW + 0.5 · MHB)			
Symmetric						SLU		SLE		SL		SHW		SFL		55.27				SL · (SFL + 4 · SHW) / 6			
						11.40		11.40		11.40		5.81		5.85									
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	
0.10		0.60		1.13		2.25		3.39		4.56		10.90		24.79								Unknown	
MEASUREMENT INVENTORY											MEASUREMENT INVENTORY												
Measurer ESP 488-842											Id Item Tank Use Tank Type Capcty Dist. VCG Condtm Description												
Date 11/05/2015											001 Tank AGUA 150.0												
Comment											002 Tank GASPOIL 70.0												
Id Item Weight Distance VCG Description											003 Tank aguas negras 20.0												
004 Anchor 66.0											002 Tank gasoil 70.0												
004 Anchor 0.66 ancla con-											001 Tank agua 150.0												
Id Item Weight Description											Id Item Weight Distance VCG Description												
											001 Battery 40.0 3 BAT												
											001 Battery 40.0 2 baterías												

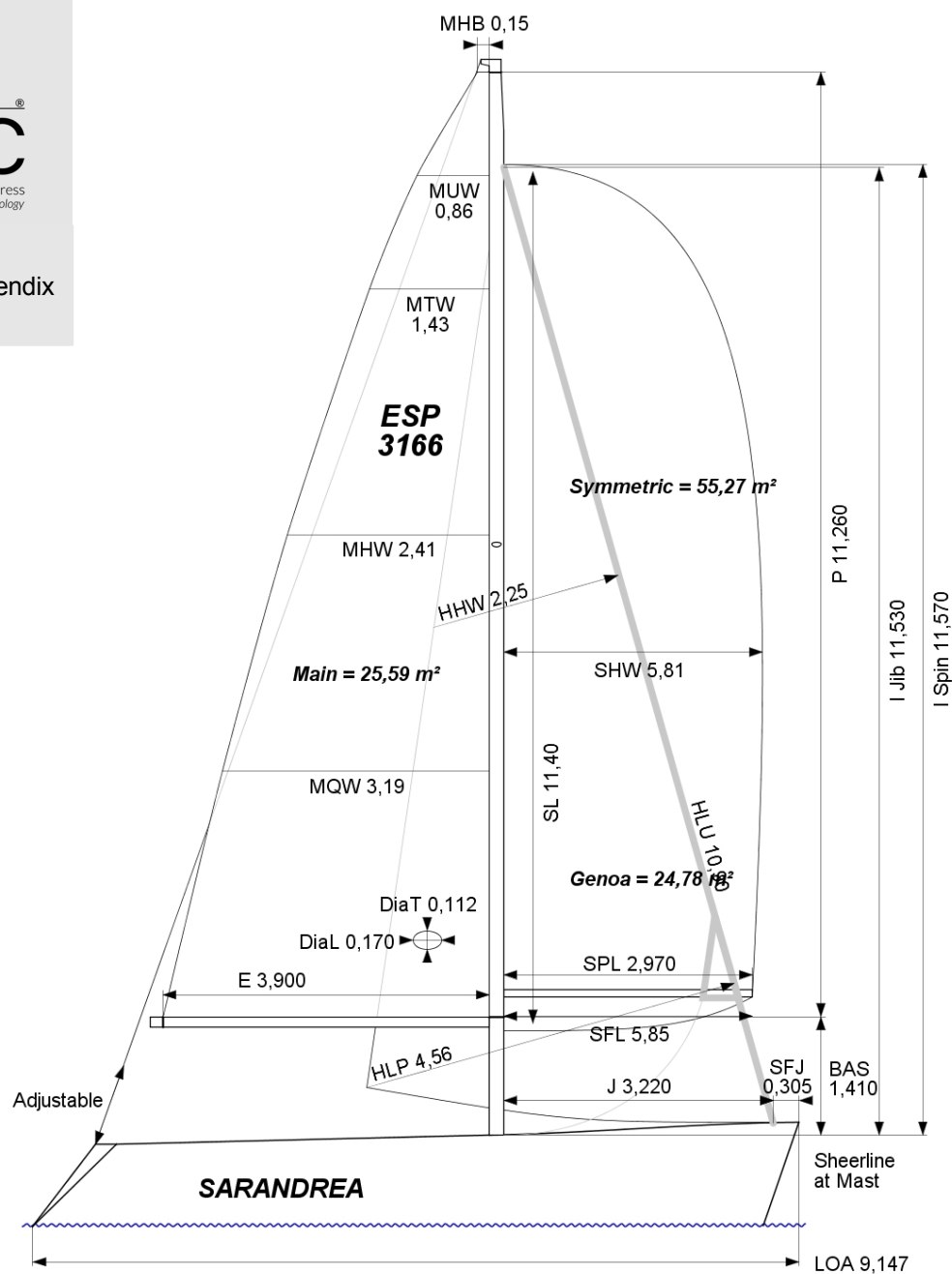




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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Measurer	Meas.Date	Manufacture	Material	Comment
Mayor	0.15	0.86	1.43	2.41	3.19	25.59							Unknown	

HEADSAILS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
GENOV	0.10	0.60	1.13	2.25	3.39	4.56	10.90	142%	24.79						Unknown	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
AMARILLO	11.40	11.40	11.40	5.81	5.85	55.28				Unknown	

ASYMMETRIC SPINNAKERS (0)

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