

BOAT Name NATALIA Sail Nr ROU-1	GPH 543,4	HULL Length Overall 12,960m Maximum Beam 3,910m Displacement 7.621kg Draft 2,741m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,000% Fwd Accommodation No Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class SWAN 42 CS Designer SWAN NY/CLUB FRERS Builder NAUTOR Series 01/2006 Age 01/2010 Age Allowance 0,292% Offset File SWAN42CS.OFF - 19/2/2015 20:04:48 Measurement by MURCHIO-CHITI-Tach - 16/05/2014		IMSL 11,836m VCGD -0,472m Sink 24,36kg/mm RL 11,321m VCGM -0,366m WS 32,99m²




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Offshore
Racing
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	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	530,3			594,9		
Time On Time	1,1315			1,1346		
Performance Line	0,992	114,6		1,036	249,7	
Triple Number	Low 1,0923	Medium 1,3976	High 1,5686	Low 0,8373	Medium 1,1300	High 1,2955

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	914,1	753,3	665,4	627,6	607,7	595,3	592,4
52°	595,9	497,9	457,5	443,8	436,7	432,4	427,5
60°	559,8	475,5	445,1	431,2	423,6	418,7	412,9
75°	530,0	461,2	435,2	417,1	402,5	394,1	386,3
90°	529,8	452,4	437,0	417,7	398,2	380,1	359,3
110°	529,5	454,2	422,0	400,1	385,3	375,2	354,5
120°	553,3	459,8	424,6	397,6	377,7	365,1	340,2
135°	623,6	499,3	449,6	423,2	396,8	369,3	316,2
150°	748,6	599,9	508,1	458,6	431,8	408,5	358,3
Run VMG	864,4	692,8	586,7	524,7	483,2	454,4	409,6

Selected Courses							
Windward / Leeward	889,3	723,0	626,0	576,1	545,5	524,9	501,0
Circular Random	744,4	602,8	527,6	484,0	456,9	438,6	413,7
Ocean for PCS	793,6	629,7	538,9	483,3	445,9	418,0	375,0
Non Spinnaker	816,0	653,0	564,0	511,3	478,0	455,9	428,1

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	43,2°	42,0°	40,6°	38,7°	37,5°	36,7°	37,2°
Beat VMG	3,94	4,78	5,41	5,74	5,92	6,05	6,08
52°	6,04	7,23	7,87	8,11	8,24	8,33	8,42
60°	6,43	7,57	8,09	8,35	8,50	8,60	8,72
75°	6,79	7,80	8,27	8,63	8,95	9,14	9,32
90°	6,79	7,96	8,24	8,62	9,04	9,47	10,02
110°	6,80	7,93	8,53	9,00	9,34	9,59	10,16
120°	6,51	7,83	8,48	9,05	9,53	9,86	10,58
135°	5,77	7,21	8,01	8,51	9,07	9,75	11,39
150°	4,81	6,00	7,09	7,85	8,34	8,81	10,05
Run VMG	4,16	5,20	6,14	6,86	7,45	7,92	8,79
Gybe Angles	139,8°	144,4°	146,2°	155,0°	161,2°	169,1°	162,3°

Certificate

Number **Rou101**
ORC Ref **ESP00012759**
Issued On **28/6/2015**
VPP Ver. **2015 1.01**
Valid until **31/12/2015**

Crew Weight

Declared **875kg**
Default* **844kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	547,9	1,0951
Double H.OSN	535,9	1,1196
Non Spin GPH	582,1	1,0308
Non Spin OSN	566,4	1,0594
N/S Perf. Line	70,0	0,849

Sails Limitations

Headsails	7	Spinnakers	4
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Class Division Length

CDL = **11,580**

Storm Sails Areas

Heavy Weather Jib **44,53**
Storm Jib (JL=11,80) **16,49**
Storm Trysail **17,40**

Owner

BOAT	
Name NATALIA	Sail Nr ROU-1
File ROU1.dxt	Data in meters/kilograms

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 17,230	E 5,770	MDT1 0,138	MW 0,264	
IG 17,980	J 5,010	MDL1 0,264	GO 0,314	
ISP 19,440	SFJ 0,340	MDT2 0,106	BD 0,206	
BAS 1,920	SPL	MDL2 0,200	MWT 229,60	
FSP 0,074	TPS 7,300	TL 1,000	MCG 6,240	

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 27/06/2014		SG 1,0250	
FFM 1,460	FF 1,460	SFFP 0,474	
FAM 1,118	FA 1,118	SAFP 12,543	
W1 126,06	PD1 526,3	WD 11,891	
W2 126,06	PD2 522,9	GSA 1,0	
W3 126,06	PD3 527,6	RSA 1,0	
W4 126,06	PD4 528,8	PLM 9000,0	
LCF from stem on CL / on sheer		7,164 / 7,412	
Maximum beam station from stem		8,347	
RM Measured		224,3kg·m	
RM Default		214,7kg·m	
Limit of positive stability / Stab.Index		135,7° / 138,3	
Freeboard at mast at 5,350		1,238	



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Measurements Datasheet

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0,440	
Type Folding 2 blades	PBW 0,110	
Twin Screw No	PIPA 0,0040	
ST1 0,065	ST3 0,180	ST5 0,280
ST2 0,180	ST4 0,110	EDL 1,630

COMMENTS	
OFFSET VALIDO.07/2014	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



Invalid for Racing

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SAILS (Maximum Areas)						
Mainsail	HB	MGT	MGU	MGM	MGL	
	0,180	1,52	2,48	3,77	4,84	
	Area	Area (r)	Formula			
	60,99	62,42	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)			
Symmetric						
Not Available						
Asymmetric	SLU	SLE	ASL	AMG	ASF	
	22,14	17,77	19,95	11,23	10,95	
	Area					185,81
	Formula					ASL · (ASF + 4·AMG) / 6

HEADSAILS												
Area = 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)												
JH	JGT	JGU	JGM	JGL	LPG	JL	Area	Btn	Fly	Meas.Date	Material	Comment
0,11	0,77	1,46	2,68	3,89	5,33	18,10	48,58	Y		22/06/2015	Unknow	LIGERO
0,10	0,77	1,44	2,66	3,87	5,32	18,13	48,39	Y		22/06/2015	Unknow	MEDIO

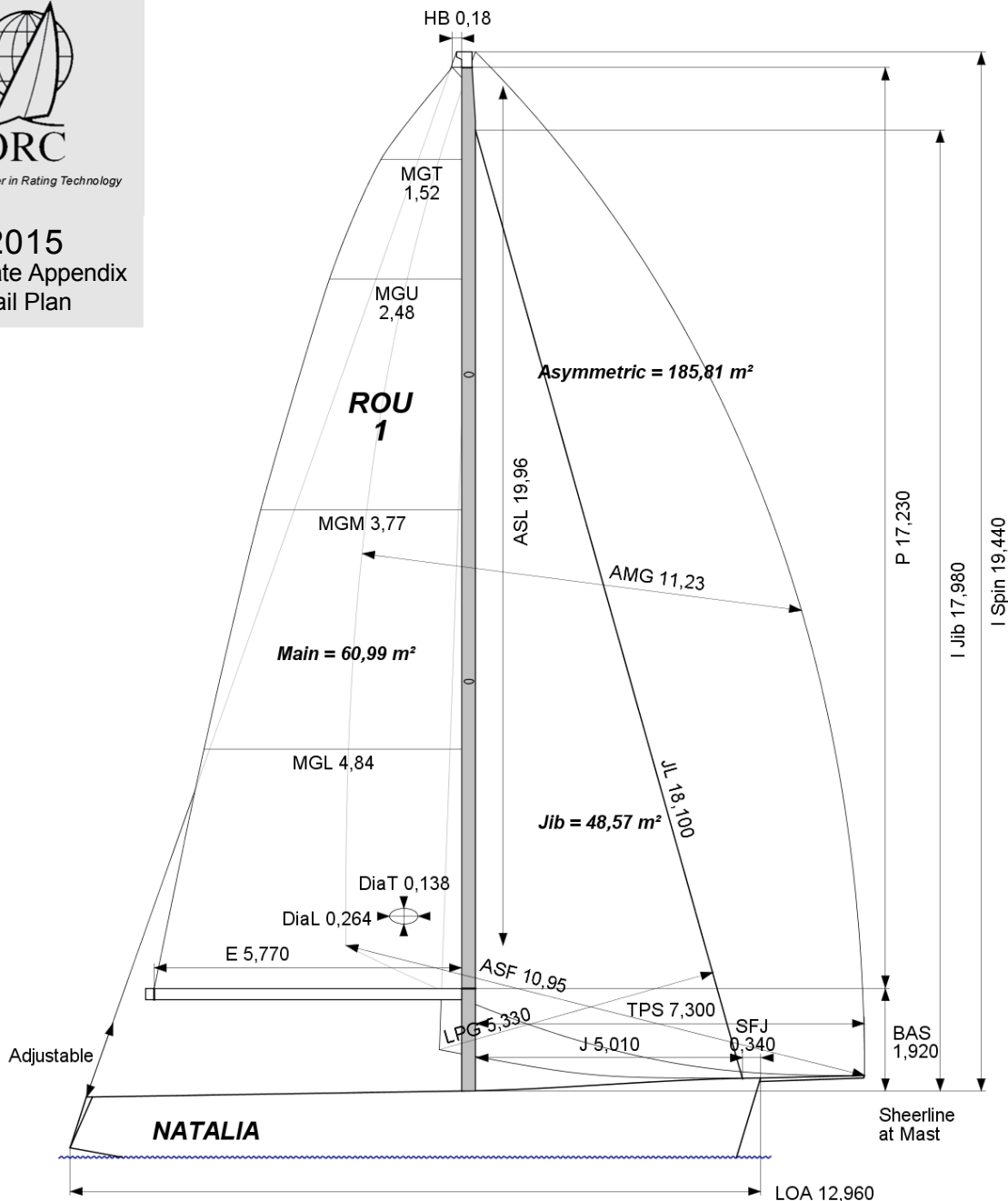
MEASUREMENT INVENTORY				
Measurer TACHAMONTANER ESP-22				
Date 27/06/2014				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

MEASUREMENT INVENTORY				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>



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Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0,180	1,52	2,48	3,77	4,84	60,99	C.M.	27/06/2015		Unknown	27061401

HEADSAILS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,11	0,77	1,46	2,68	3,89	5,33	18,10	106%	48,58	Y		CESAR	22/06/2015		Unknown	LIGERO
1	0,10	0,77	1,44	2,66	3,87	5,32	18,13	106%	48,39	Y		CESAR	22/06/2015		Unknown	MEDIO

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
1	22,14	17,77	19,95	11,23	10,95	185,81	asym	CESAR CALVO	22/06/2015		Unknown	A2
1	21,78	17,95	19,87	11,04	11,27	183,52	asym	CESAR CALVO	22/06/2015		Unknown	A1