

BOAT Name NITRO Sail Nr ROU-8436	GPH 601.2	HULL Length Overall 11.000m Maximum Beam 3.614m Displacement 5,440kg Draft 2.285m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.192% Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class Saffier 36 Designer bosgraaf Builder saffier Series 03/2012 Age 03/2012 Age Allowance 0.260% Offset File saffier36.off - 03/04/2018 07:41:58 Measurement by - 28/03/2018		IMSLS 9.901m VCGD 0.216m Sink 19.41kg/mm RL 9.278m VCGM -0.042m WS 25.98m² LSM0 9.465m Displacement/Length ratio 6.4156



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	582.1			652.8		
Time on Time	1.0307			1.0341		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	700.0	529.7	466.2	910.9	655.3	564.3
Time on Time	0.9643	1.2743	1.4479	0.7410	1.0300	1.1962

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1071.2	873.1	756.3	693.2	673.5	666.4	656.0
52°	693.2	574.1	509.7	483.4	474.6	470.0	466.1
60°	643.9	539.9	491.4	469.3	457.9	452.8	447.5
75°	603.5	513.9	478.2	456.8	439.2	426.9	417.7
90°	608.1	514.3	474.7	453.2	431.0	412.1	389.9
110°	608.3	503.5	462.7	435.6	418.9	404.4	376.6
120°	624.5	512.3	467.5	437.5	409.3	388.4	362.3
135°	692.4	556.0	488.5	456.4	428.0	401.6	345.4
150°	821.5	650.1	546.8	488.7	458.8	432.7	383.4
Run VMG	948.6	750.6	631.4	557.7	509.7	474.0	424.3

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VPP Ver. **2020 1.02**
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Crew Weight
Default **636kg**
Maximum **750kg**
Minimum* **563kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **646.9 0.9275**
Non Spin OSN **624.7 0.9604**

Selected Courses							
Windward / Leeward	1009.9	811.9	693.9	625.5	591.6	570.2	540.1
Circular Random	837.6	672.2	582.7	530.2	497.6	475.8	447.0
Coastal / Long Distance	1003.8	760.3	624.5	546.3	506.6	475.6	426.8
Non Spinnaker	919.5	730.0	625.7	563.7	525.1	499.9	468.4

Sails Limitations
Headsails **5** Spinnakers **4**

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	43.5°	42.0°	41.3°	39.4°	38.8°	38.6°	38.4°
Beat VMG	3.36	4.12	4.76	5.19	5.34	5.40	5.49
52°	5.19	6.27	7.06	7.45	7.59	7.66	7.72
60°	5.59	6.67	7.33	7.67	7.86	7.95	8.04
75°	5.96	7.01	7.53	7.88	8.20	8.43	8.62
90°	5.92	7.00	7.58	7.94	8.35	8.74	9.23
110°	5.92	7.15	7.78	8.26	8.59	8.90	9.56
120°	5.76	7.03	7.70	8.23	8.79	9.27	9.94
135°	5.20	6.47	7.37	7.89	8.41	8.96	10.42
150°	4.38	5.54	6.58	7.37	7.85	8.32	9.39
Run VMG	3.80	4.80	5.70	6.45	7.06	7.59	8.48
Gybe Angles	141.5°	147.0°	149.5°	156.0°	170.0°	180.0°	180.0°

Class Division Length
CDL = **9.572**

Storm Sails Areas
Heavy Weather Jib **27.99**
Storm Jib (JL=9.36) **10.37**
Storm Trysail **11.73**

Owner

BOAT	
Name NITRO File nedc8436	Sail Nr ROU-8436 Data in meters/kilograms
RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay None Fitted	Runners/Checkstays 0
Carbon Mast Yes	Jib Furler No
Fiber Rigging No	Main Furler No
Non-Circular Rigging No	
Articulated Bowsprit No	
P 13.960	E 4.800 MDT1 0.109 MW 0.215
IG 14.360	J 3.830 MDL1 0.209 GO 0.225
ISP 15.650	SFJ 0.300 MDT2 0.108 BD 0.200
BAS 1.560	SPL 4.355 MDL2 0.203 MWT 132.90
FSD 0.035	TPS TL 0.980 MCG 5.320

INCLINING TEST AND FREEBOARDS		
Inclining Test Boom Inclining	LCFD	
Flotation date 22/05/2018	SG 1.0180	
FFM 1.368	FF 1.371	SFFP 0.005
FAM 0.182	FA 0.183	SAFP 11.166
W1 85.8	PD1 226.5	WD 4.580
W2 85.8	PD2 226.3	GSA 1.0
W3 85.8	PD3 230.0	RSA 1.0
W4 85.8	PD4 232.2	PLM 9000.0
LCF from stem on CL / on sheer	5.845 / 6.094	
Maximum beam station from stem	7.467	
RM Measured	135.3kg-m	
RM Default	141.6kg-m	
Limit of positive stability / Stab.Index	124.6° / 124.2	
Freeboard at mast at 4.130	1.235	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0.420	
Type Folding 2 blades	PBW 0.200	
Twin Screw No	PIPA 0.0037	
ST1 0.050	ST3 0.180	ST5 0.360
ST2 0.180	ST4 0.112	EDL 0.570

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.16	1.04	1.83	3.06	3.99	39.72	40.50	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	110.87		SL · (SFL + 4·SHW) / 6	
	15.70	15.70	15.70	8.53	8.25				
Asymmetric	Not Available								

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB), HS flying rated area = 32.32												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.08		1.24	2.21	3.13	4.02	13.98	29.82	Y	No		Unknow	
					4.01	14.05	28.68	Y	No	25/05/2017	Unknow	
					4.00	13.60	27.69	Y	No		Unknow	
0.06	0.77	1.51	2.73	3.34	3.70	11.90	27.52		Yes		Unknow	
0.10	0.48	0.91	1.83	2.84	3.90	13.45	25.53	Y	No	14/07/2018	Unknow	
0.08	0.45	0.85	1.95	2.80	3.90	12.18	23.16	Y	No		Unknow	
0.06	0.55	1.03	1.86	2.62	3.32	10.45	18.67		Yes		Unknow	

MEASUREMENT INVENTORY				
Measurer	Date 20/03/2012			
Comment	Internal Ballast total = 0.0			
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight Description		

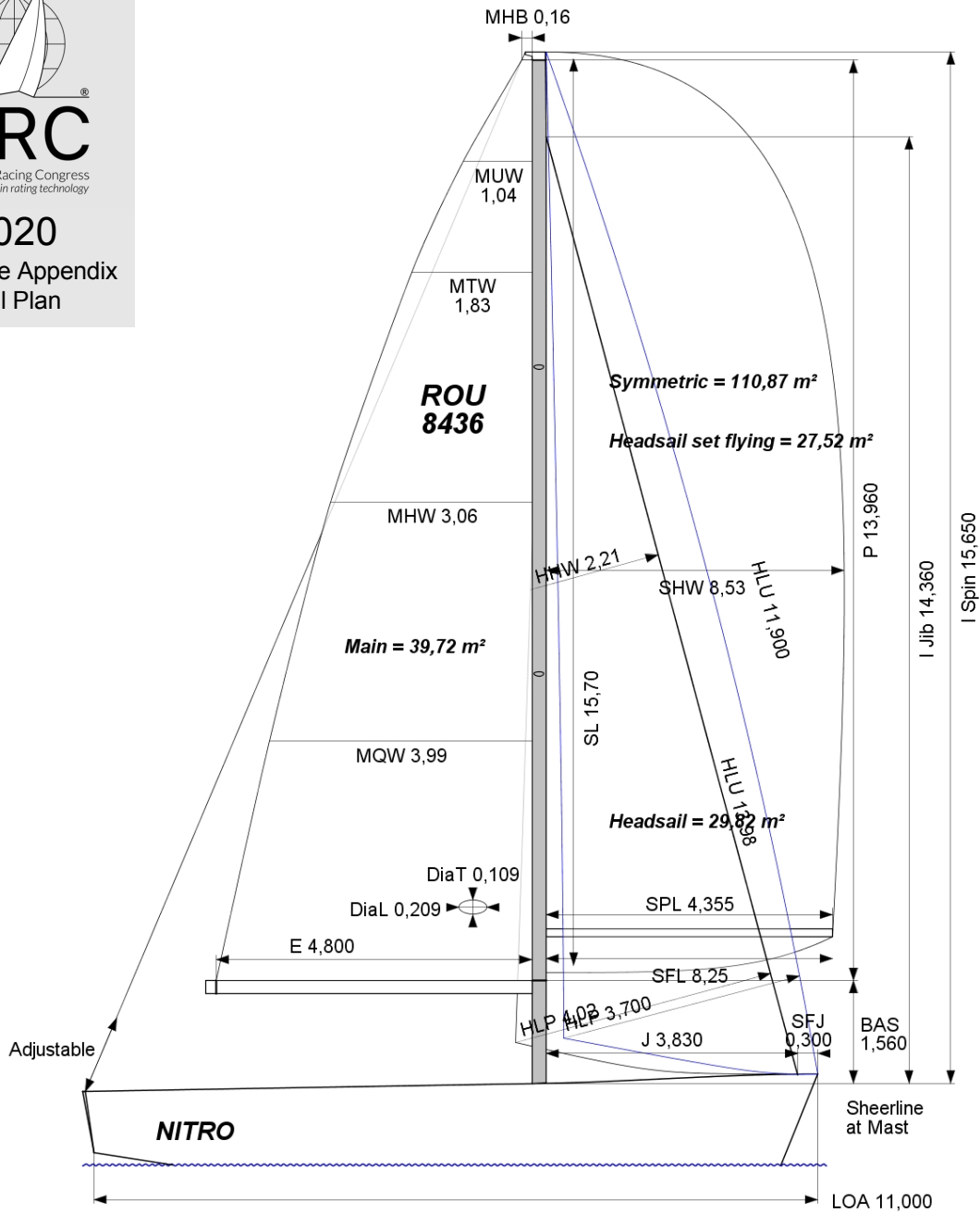
MEASUREMENT INVENTORY									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condt	Description
2	Tank	WATER		FIXED	60.0	7.00		0-0	
1	Tank	FUEL		FIXED	60.0	7.00		0-0	
Id	Item	Weight	Distance	VCG Description					
2	Battery	18.6	6.00	1.00					
1	Battery	18.6	6.00	-1.00					



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SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
3	0.16	1.04	1.83	3.06	3.99	39.73		18/04/2018	ullmansails	Unknown						
HEADSAILS (7)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
.16	0.08		1.24	2.21	3.13	4.02	13.98	105%	29.82	Y	No					Unknow
j						4.01	14.05	105%	28.68	Y	No		25/05/2017			Unknow
jib2						4.00	13.60	104%	27.69	Y	No					Unknow
st1	0.06	0.77	1.51	2.73	3.34	3.70	11.90	97%	27.52		Yes					Unknow
.18	0.10	0.48	0.91	1.83	2.84	3.90	13.45	102%	25.53	Y	No		14/07/2018			Unknow
jib	0.08	0.45	0.85	1.95	2.80	3.90	12.18	102%	23.16	Y	No					Unknow
st2	0.06	0.55	1.03	1.86	2.62	3.32	10.45	87%	18.67		Yes					Unknow
SYMMETRIC SPINNAKERS (4)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
4b	15.70	15.70	15.70	8.53	8.25	110.87		18/04/2018	ullmansails	Unknown						
4	15.82	15.82	15.82	8.36	8.30	110.06		18/04/2018	ullmansails	Unknown						
h.r	15.41	15.41	15.41	8.42	8.22	107.62		22/05/2019	ullman	Nylon						
s	15.38	15.38	15.38	8.37	8.24	106.95		05/05/2016		Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				