



World Leader in Rating Technology

2018 ORC Club Certificate

Rating Office
Portsmouth Olympic
Harbour
53 Yonge Street
Kingston, Ontario
Canada K7M 6G4



Certificate

Number **WA8002**
Issued On **2/24/18**
ORC Ref **CAN00000450**
VPP Ver **2018 1.00**
Valid until **12/31/18**

Crew Weight

Default **711kg**
Maximum **635kg**
Minimum* **476kg**
*when applied by the NoP and SI
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	631.8	0.9497
Double H.OSN	614.6	0.9763
Non Spin GPH	662.5	0.9057
Non Spin OSN	642.4	0.9340

Sails Limitations

Headsails 5 Spinnakers 3

Spinnaker configuration
Symmetric: Yes **118.97**
Asymmetric: Yes **128.59**
Flying H/S: No
Spin. Pole: Yes

Class Division Length

CDL = 9.324

Stability (Estimated)

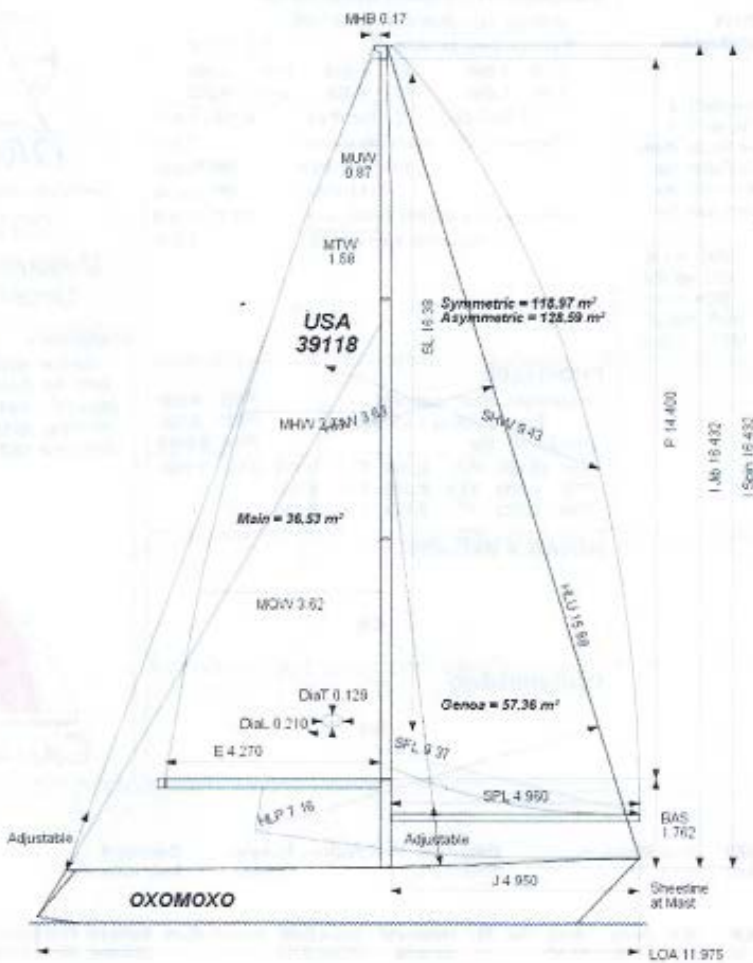
Limit Positive Stab.: **113.7°**
Stability Index: **119.4**

Owner

Doug Frazer
PO Box 432
Medina WA 98039
USA

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

Signature



BOAT		GPH	HULL			
Name Oxomoxo Sail Nr USA 39118		630.1	Data File USA39118	LOA 11.975m		
			Offset File US17312.BOF	MB 3.828m		
			Displacement 9,215kg	Draft 2.244m		
			IMS Division Cruiser/Racer	Dynamic All. 0.366%		
			Fwd Accom. Yes	Construction Solid		
			Fiber Rigging No	Aramid Core No		
			Crew Arm Ex	Carbon Rudder No		
				Light Stanchions No		
			IMSL 10.166m	VCGD 0.145m		
			RL 8.481m	VCGM 0.037m		
			LSMD 10.226m	Displacement/Length ratio 8.6174		
			Water Ballast 0	Trim Tab No		
			BLR Index 0.0000			
CLASS			CENTERBOARD			
Class Swan 391			N/A			
Designer Holland						
Builder Nautor						
Series 01/1982						
Age Date 01/1982						
Age Allowance 0.487%						
COMMENTS						
Using sistership data from GER 6302						
PROPELLER						
Installation Shaft exposed	PRD 0.530					
Type Folding 2 blades	PBW 0.135					
	PIPA 0.0079					
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	611.8			680.1		
Time on Time	0.9808			0.9925		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	722.9	558.0	498.2	929.1	686.3	590.7
Time on Time	0.9338	1.2097	1.3548	0.7265	0.9835	1.1427

BOAT	
Name Oxomoxo	Sail Nr USA 39118
File USA39118	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay Adjustable	Runners 1
Carbon Mast No	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 14.400	E 4.270 MDT1 0.129 MW 0.155
IG 16.432	J 4.950 MDL1 0.210 GO 0.160
ISP 16.432	SFJ 0.129 MDT2 0.129 BD 0.170
BAS 1.762	SPL 4.960 MDL2 0.150 MWT 292.00
FSP 0.060	TPS TL 2.755 MCG 5.250

MIZZEN RIG AND SAILS	
N/A	

COMMENTS	
Using sistership data from GER 6302	

INCLINING TEST AND FREEBOARDS	
Inclining Test Club Estimated VCG	
Flotation date 27/04/2013 SG 1.0110	
FFM 1.298	FF 1.304 SFFP 0.820
FAM 1.063	FA 1.068 SAFF 11.223
LCF from stem on CL / on sheer 6.753 / 6.966	
Maximum beam station from stem 7.071	
RM Measured 196.9kg-m	
RM Default 191.2kg-m	
Limit of positive stability / Stab.Index 113.7° / 119.4	
Freeboard at mast at 4.950 1.135	

PROPELLER	
Installation Shaft exposed	PRD 0.530
Type Folding 2 blades	PBW 0.135
Twin Screw No	PIPA 0.0079
PSA 18.400	PHL 0.150 ST3 0.128 ESL 1.065
PSD 0.030	ST1 0.040 ST4 0.060
PHD 0.095	ST2 0.128 ST5 0.230

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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2018 Measurements Datasheet

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SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
sister	0.170	0.87	1.58	2.73	3.62	36.53		05/05/2016		Unknown	from sister ship					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrip	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
No1	0.09	0.87	1.70	3.63	5.52	7.16	15.88	145%	57.37			Simanis	28/04/2010		Unknown	Measured by Ballard
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
Sym	16.23	16.23	16.23	8.87	8.50	118.97		02/05/2016		Unknown	from PHRF NW certificate					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
Akite	17.83	14.94	16.38	9.43	9.37	126.59	asym		02/05/2016		Nylon	measured by Ballard Sails				