



World Leader in Rating Technology

2016 ORC Club Certificate

Rating Office

ORC
Central Rating Office
issuing certificates for
CANADA



Certificate

Number **007/16**
Issued On **30.4.2016**.
ORC Ref **CAN00062739**
VPP Ver. **2016 1.01**
Valid until **31.12.2016**.

Crew Weight

Declared **873kg**
Default* **873kg**
Non Manual Pwr

Special Scoring

	ToD	ToT
Non Spin GPH	639.0	0.9390
Non Spin OSN	618.4	0.9702
N/S Perf. Line	-16.6	0.574

Sails Limitations

Headsails **7** Spinnakers **4**

Spinnaker configuration

Symmetric: **No**
Asymmetric: **Yes 158.53**
Flying H/S: **Yes 53.98**
Spin. Pole: **No**

Class Division Length

CDL = **10.395**

Stability

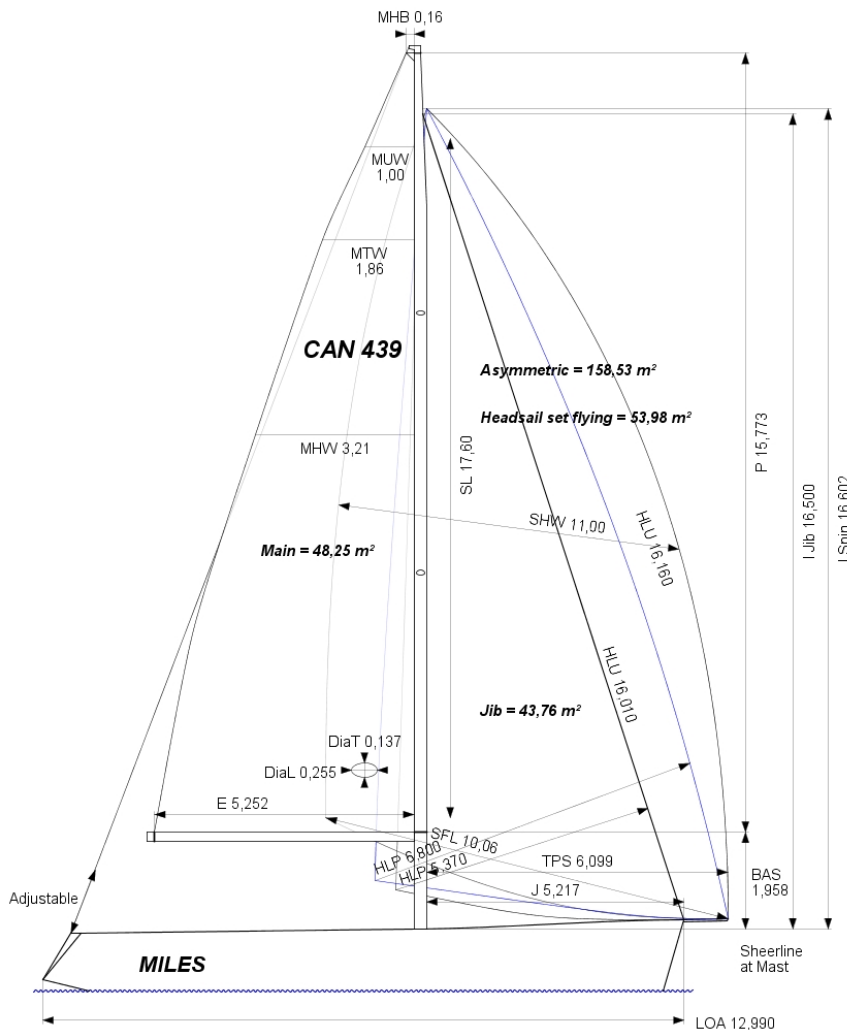
LPS (Estimated): **119.1°**
Stability Index: **122.9**
OSR Category: **N/A**

Owner

Andrew and Tim Butjes
35 Gostick Place
North Vancouver, BC
Canada V7M 3N2

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

Signature



BOAT		GPH	HULL			
Name	Miles	595.8	Data File	CAN439.dxt		
Sail Nr	CAN 439		LOA	12.990m		
CLASS		IMSL Division Cruiser/Racer Dynamic All. 0.246% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No				
Class Sun Odyssey 439 Designer Briand Builder Jeanneau Series 01.2011 Age Date 01.2011 Age Allowance 0.163%		Displacement 9,880kg Draft 2.195m Displacement 9,880kg Draft 2.195m Displacement 9,880kg Draft 2.195m				
COMMENTS		Water Ballast 0 Trim Tab No				
PROPELLER		CENTERBOARD				
Installation	Strut	PRD	0.486			
Type	Folding 3 blades	PBW	0.120			
		PIPA	0.0012			
SCORING OPTIONS						
Time On Distance	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	580.0			655.2		
Time On Time	1.0345			1.0302		
Performance Line	PLT	PLD	PLT	PLD		
	0.667	16.3	0.816	166.4		
Triple Number	Low	Medium	High	Low	Medium	High
	0.9721	1.2853	1.4674	0.7387	1.0194	1.2052



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ORC Club Certificate Appendix

BOAT	
Name	Miles
Sail Nr	CAN 439
Certificate Number	007/16
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TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1078.8	885.4	778.6	703.0	658.0	637.3	621.7
52°	687.0	570.9	502.6	468.0	454.1	446.1	439.7
60°	632.1	528.8	474.5	450.9	439.0	432.4	425.3
75°	582.2	492.9	456.2	438.1	424.7	413.4	400.5
90°	577.8	493.7	454.6	436.6	425.4	411.4	385.1
110°	598.1	492.3	449.6	427.2	406.7	393.0	374.5
120°	613.8	504.1	455.6	432.1	411.0	389.4	358.5
135°	688.9	554.9	480.0	447.7	427.2	407.0	367.3
150°	815.4	649.1	547.3	485.9	458.1	440.6	411.2
Run VMG	941.6	749.5	632.0	561.1	527.9	494.3	443.1

Selected Courses							
Windward / Leeward	1010.2	817.5	705.3	632.0	593.0	565.8	532.4
Circular Random	830.5	666.7	577.5	524.8	491.8	470.0	442.2
Ocean for PCS	1028.0	788.7	652.2	567.8	512.5	474.0	421.3
Non Spinnaker	910.2	722.9	618.5	555.1	514.5	487.4	454.1

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	44.6°	43.0°	42.6°	42.2°	40.6°	39.9°	39.2°
Beat VMG	3.34	4.07	4.62	5.12	5.47	5.65	5.79
52°	5.24	6.31	7.16	7.69	7.93	8.07	8.19
60°	5.70	6.81	7.59	7.98	8.20	8.33	8.47
75°	6.18	7.30	7.89	8.22	8.48	8.71	8.99
90°	6.23	7.29	7.92	8.25	8.46	8.75	9.35
110°	6.02	7.31	8.01	8.43	8.85	9.16	9.61
120°	5.87	7.14	7.90	8.33	8.76	9.25	10.04
135°	5.23	6.49	7.50	8.04	8.43	8.85	9.80
150°	4.41	5.55	6.58	7.41	7.86	8.17	8.75
Run VMG	3.82	4.80	5.70	6.42	6.82	7.28	8.12
Gybe Angles	143.9°	147.9°	146.9°	149.1°	150.8°	174.8°	177.9°