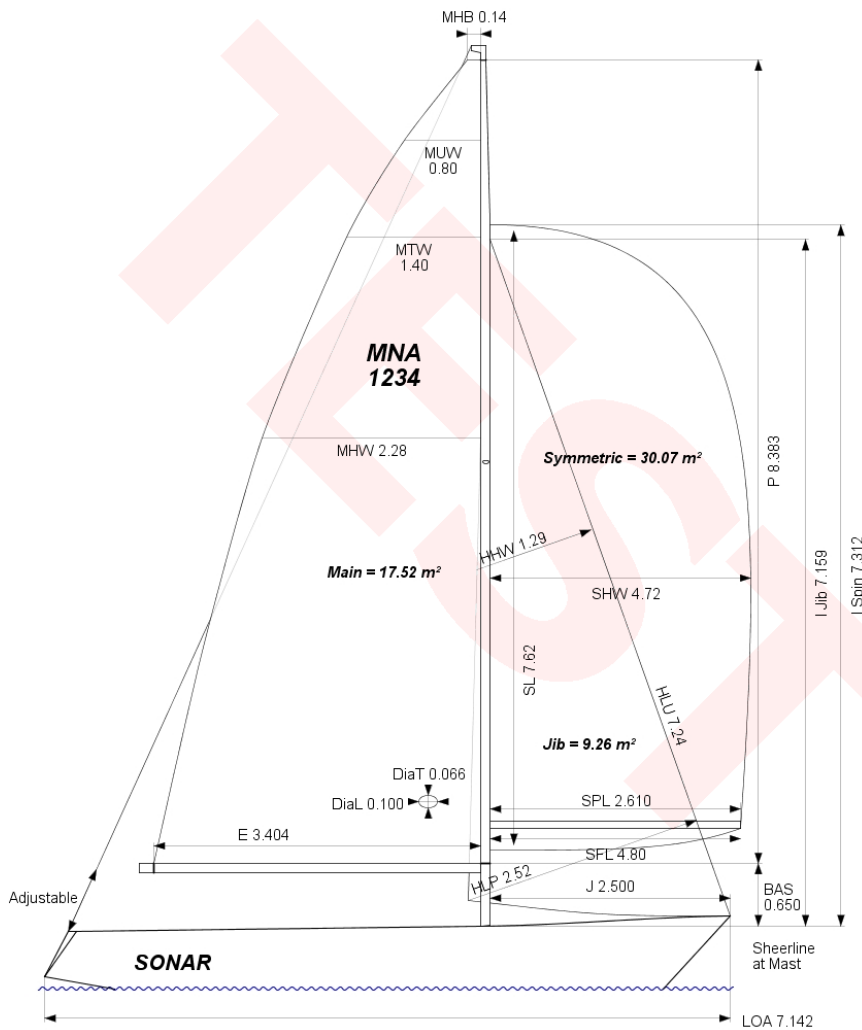




World Leader in Rating Technology

2019 (Test) ORC Club One Design Certificate



Rating Office

Certificate

Number **041002**
 Issued On **15/01/2019**
 ORC Ref **N/A**
 VPP Ver. **2019 1.01**

Invalid for Racing

Crew Weight

Default 323kg
 Maximum **323kg**
 Minimum* **238kg**
*when applied by the NoR and SI
 Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	772.3	0.7769
Non Spin OSN	745.7	0.8046

Sails Limitations

Headsails **5** Spinnakers **3**
Dacron Sails

Spinnaker configuration

Symmetric: **Yes** **30.07**
 Asymmetric: **No**
 Flying H/S: **No**
 Spin. Pole: **Yes**

Class Division Length

CDL = **5.933**

Stability (Estimated)

Limit Positive Stab.: **99.5°**
 Stability Index: **90.9**

Owner

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

Signature

BOAT		GPH		HULL		
Name	SONAR		738.4	Data File	sonar LOA 7.142m	
Sail Nr	MNA-1234			Offset File	sonar.od MB 2.380m	
				Displacement	950kg Draft 1.184m	
CLASS				IMS Division	Sportboat Dynamic All. 0.188%	
Class	Sonar			Fwd Accom.	No Construction Solid	
Designer	Kirby			Fiber Rigging	No Aramid Core No	
Builder	Sonar (UK) Ltd			Crew Arm Ex	0.50 Carbon Rudder No	
Series	04/1979			Light Stanchions No		
Age Date	06/2005			IMSL	6.112m VCGD 0.030m Sink 7.68kg/mm	
Age Allowance	0.487%			RL	5.754m VCGM 0.040m WS 9.89m²	
COMMENTS				LSMO	5.878m Displacement/Length ratio 4.6777	
				Water Ballast	0 Trim Tab No	
				BLR Index	0.0000	
PROPELLER				CENTERBOARD		
Type	No Propeller			N/A		
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	716.5			803.6		
Time on Time	0.8374			0.8399		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	850.8	655.1	569.0	1101.0	807.7	703.7
Time on Time	0.7934	1.0303	1.1862	0.6131	0.8357	0.9592



2019 (Test)

ORC Club Certificate Appendix

BOAT	
Name	SONAR
Sail Nr	MNA-1234
Certificate Number	041002
Issued On	15/01/2019

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1282.1	1062.2	946.3	880.3	844.4	839.2	858.9
52°	838.0	705.5	643.2	613.9	593.7	585.3	586.0
60°	783.2	668.3	622.4	595.3	570.0	555.8	550.2
75°	747.6	648.1	606.7	574.7	544.7	519.3	498.8
90°	729.3	625.9	579.2	540.3	519.5	501.2	452.2
110°	727.7	624.0	575.0	530.2	487.2	448.5	396.5
120°	753.9	636.0	585.9	540.9	498.9	454.0	358.2
135°	842.9	692.4	613.8	570.7	529.9	490.0	401.4
150°	996.7	787.8	668.4	607.8	568.2	530.4	455.8
Run VMG	1150.9	908.5	765.5	667.4	614.0	576.6	506.2

Selected Courses							
Windward / Leeward	1216.5	985.4	855.9	773.8	729.2	707.9	682.6
Circular Random	1021.1	824.1	717.0	652.7	611.0	582.0	541.8
Coastal / Long Distance	1209.9	924.2	772.8	679.8	625.1	582.2	499.6
Non Spinnaker	1077.2	864.7	748.9	679.8	635.9	606.2	567.3

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	43.2°	41.9°	41.2°	40.3°	39.2°	39.5°	41.3°
Beat VMG	2.81	3.39	3.80	4.09	4.26	4.29	4.19
52°	4.30	5.10	5.60	5.86	6.06	6.15	6.14
60°	4.60	5.39	5.78	6.05	6.32	6.48	6.54
75°	4.82	5.55	5.93	6.26	6.61	6.93	7.22
90°	4.94	5.75	6.21	6.66	6.93	7.18	7.96
110°	4.95	5.77	6.26	6.79	7.39	8.03	9.08
120°	4.77	5.66	6.14	6.66	7.22	7.93	10.05
135°	4.27	5.20	5.87	6.31	6.79	7.35	8.97
150°	3.61	4.57	5.39	5.92	6.34	6.79	7.90
Run VMG	3.13	3.96	4.70	5.39	5.86	6.24	7.11
Gybe Angles	148.4°	152.2°	157.1°	180.0°	180.0°	180.0°	180.0°