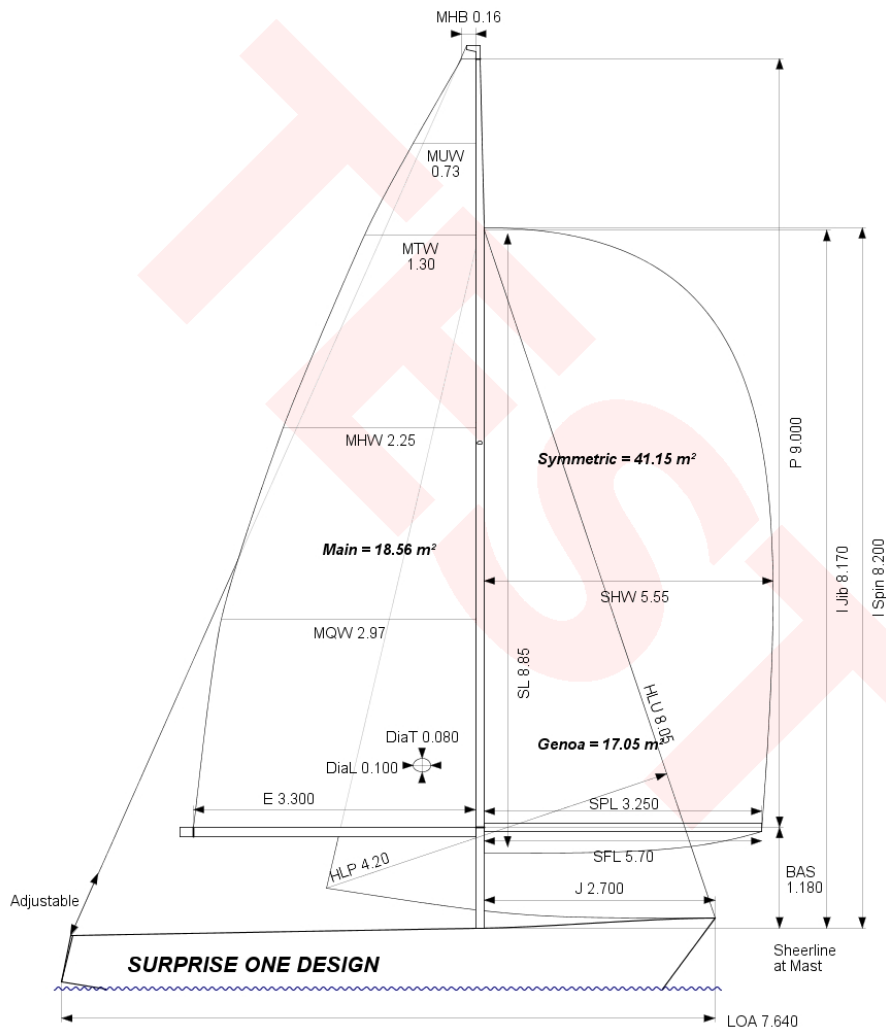




World Leader in Rating Technology

2019 (Test) ORC Club One Design Certificate



Rating Office

Certificate

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

Invalid for Racing

Crew Weight

Default 384kg
Maximum **400kg**
Minimum* **300kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	698.5	0.8590
Double H.OSN	679.3	0.8833
Non Spin GPH	715.0	0.8392
Non Spin OSN	690.9	0.8684

Sails Limitations

Headsails **5** Spinnakers **3**

Spinnaker configuration

Symmetric: **Yes** **41.15**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = **7.160**

Stability (Estimated)

Limit Positive Stab.: **110.8°**
Stability Index: **104.0**

Owner

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

Signature

BOAT	GPH	HULL
Name SURPRISE ONE DESIGN Sail Nr ?	686.4	Data File surprise LOA 7.640m Offset File surprise.od MB 2.384m Displacement 1,286kg Draft 1.774m
CLASS Class SURPRISE Designer JOUBERT-NIVELT Builder ARCHAMBAULT Series 01/1977 Age Date Age Allowance 0.487%		IMS Division Sportboat Dynamic All. 0.034% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No
COMMENTS ONE-DESIGN RULES		IMSL 6.899m VCGD -0.120m Sink 8.67kg/mm RL 7.420m VCGM -0.100m WS 11.43m² LSMO 6.642m Displacement/Length ratio 4.3888
PROPELLER Type No Propeller		Water Ballast 0 Trim Tab No BLR Index 0.0000
		CENTERBOARD ECM 0.200 CBDA 0.100 CBRC 0.100 KCDA 0.100 WCBB 0.100 CBMC 0.100 WCBA 0.100 CBDB 0.100 CBTC 0.100
SCORING OPTIONS		
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time on Distance	664.3	738.5
Time on Time	0.9032	0.9140
Triple Number	Low Medium High	Low Medium High
Time on Distance	784.0 610.3 536.4	1006.7 740.2 647.8
Time on Time	0.8610 1.1061 1.2584	0.6705 0.9119 1.0420



2019 (Test)

ORC Club Certificate Appendix

BOAT			
Name	SURPRISE ONE DESIGN	Certificate Number	SURPRI
Sail Nr	?	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	1117.6	925.3	819.3	775.2	761.0	755.0	756.5
52°	744.6	632.4	591.0	570.3	561.5	556.5	554.1
60°	710.0	613.8	579.4	555.6	542.3	535.2	530.4
75°	682.7	601.8	569.1	539.0	514.4	501.2	490.0
90°	687.4	598.2	557.0	529.2	504.9	478.6	448.9
110°	693.8	593.9	549.3	506.5	469.9	447.2	411.5
120°	719.0	604.9	558.5	515.4	474.0	432.9	376.3
135°	806.0	658.3	584.9	545.1	505.0	465.6	381.7
150°	959.6	758.1	642.0	581.0	544.6	507.7	435.4
Run VMG	1108.1	875.5	737.7	645.2	590.2	555.4	487.3

Selected Courses							
Windward / Leeward	1112.8	900.4	778.5	710.2	675.6	655.2	621.9
Circular Random	942.6	763.1	666.6	609.6	573.1	547.6	511.8
Coastal / Long Distance	1112.4	849.1	709.4	630.1	586.7	548.1	484.4
Non Spinnaker	990.3	797.6	693.6	632.4	593.8	567.4	531.6

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	41.6°	40.7°	37.9°	35.8°	35.0°	35.0°	35.4°
Beat VMG	3.22	3.89	4.39	4.64	4.73	4.77	4.76
52°	4.83	5.69	6.09	6.31	6.41	6.47	6.50
60°	5.07	5.87	6.21	6.48	6.64	6.73	6.79
75°	5.27	5.98	6.33	6.68	7.00	7.18	7.35
90°	5.24	6.02	6.46	6.80	7.13	7.52	8.02
110°	5.19	6.06	6.55	7.11	7.66	8.05	8.75
120°	5.01	5.95	6.45	6.99	7.59	8.32	9.57
135°	4.47	5.47	6.16	6.60	7.13	7.73	9.43
150°	3.75	4.75	5.61	6.20	6.61	7.09	8.27
Run VMG	3.25	4.11	4.88	5.58	6.10	6.48	7.39
Gybe Angles	147.1°	151.1°	152.6°	170.4°	180.0°	180.0°	180.0°