



ORC
Offshore Racing Congress
World leader in rating technology

**2020
ORC Club
Certificate**

Rating Office

**Offshore
Racing
Congress**



Certificate

Number **036/20**
Issued On **22/05/2020**
ORC Ref **03850000ILT**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 423kg
Maximum **430kg**
Minimum* **323kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	781.5	0.7678
Non Spin OSN	755.8	0.7938

Sails Limitations

Headsails **1** Spinnakers **4**
Woven Polyester
Asymmetric on centerline
Spinnaker configuration
Symmetric: **No**
Asymmetric: **Yes 56.22**
Flying H/S: **No**
Spin. Pole: **No**

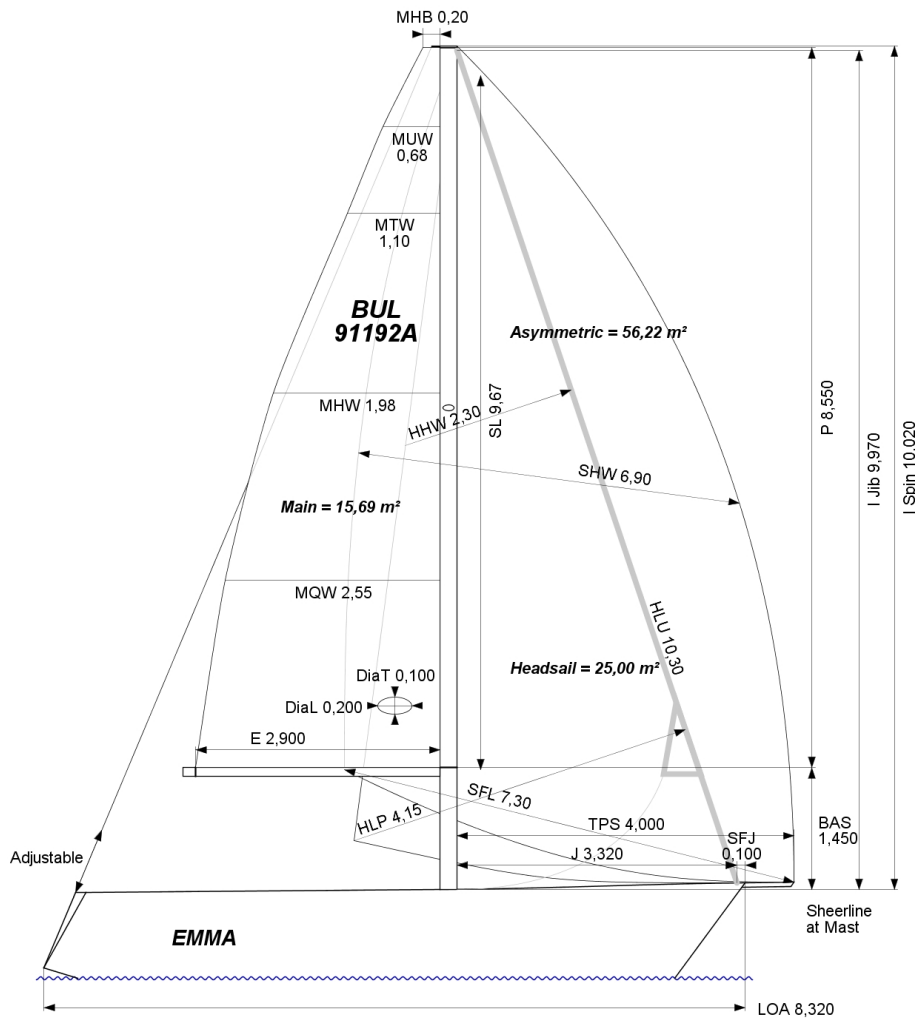
Class Division Length

CDL = 6.404

Stability (Estimated)

Limit Positive Stab.: **119.6°**
Stability Index: **117.9**

Owner



BOAT	GPH	HULL
Name EMMA Sail Nr BUL 91192-A	749.6	Data File BUL91192A LOA 8.320m Offset File DUF2800.OFF MB 2.820m Displacement 2,803kg Draft 1.464m
CLASS Class Dufour 2800 Designer Michael Dufour Builder Dufour Series 01/1977 Age Date 06/1983 Age Allowance 0.487%		IMS Division Cruiser/Racer Dynamic All. 0.348% Plan Review Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No
COMMENTS Mobile +359879992966		IMSL 7.056m VCGD -0.031m Sink 11.27kg/mm RL 5.752m VCGM 0.043m WS 15.38m² LSM0 7.102m Displacement/Length ratio 7.8249 Water Ballast 0 Trim Tab No BLR Index 0.0000
PROPELLER Type No Propeller		CENTERBOARD NA
SCORING OPTIONS		
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time on Distance	731.0	821.2
Time on Time	0.8207	0.8220
Triple Number	Low Medium High	Low Medium High
Time on Distance	854.9 664.9 598.9	1104.7 826.0 723.8
Time on Time	0.7896 1.0152 1.1270	0.6110 0.8172 0.9326

2020

ORC Club Certificate Appendix

BOAT			
Name	EMMA	Certificate Number	036/20
Sail Nr	BUL 91192-A	Issued On	22/05/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1285.9	1080.0	960.7	880.5	851.1	841.6	854.2
52°	836.2	709.7	638.9	606.7	592.7	588.0	588.1
60°	787.2	669.6	616.2	591.3	577.0	570.9	569.1
75°	751.5	642.6	600.1	577.7	560.8	547.5	537.0
90°	755.9	631.1	582.9	558.5	546.1	536.9	510.3
110°	738.6	619.1	575.5	546.7	520.2	499.8	479.7
120°	769.6	631.3	581.3	551.6	523.3	498.0	462.6
135°	848.3	689.3	603.7	569.5	542.2	515.6	471.4
150°	983.5	794.3	673.0	616.1	586.3	565.2	523.5
Run VMG	1135.6	917.2	777.1	711.4	651.4	605.1	557.7
Selected Courses							
Windward / Leeward	1210.8	998.6	868.9	795.9	751.2	723.4	705.9
Circular Random	1026.7	831.6	727.5	667.7	631.9	609.7	585.4
Coastal / Long Distance	1203.3	935.2	780.7	690.5	642.9	607.9	553.5
Non Spinnaker	1087.2	873.4	757.4	689.5	648.4	622.9	595.5

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	43.3°	42.0°	42.6°	41.3°	40.5°	40.1°	40.9°
Beat VMG	2.80	3.33	3.75	4.09	4.23	4.28	4.21
52°	4.31	5.07	5.63	5.93	6.07	6.12	6.12
60°	4.57	5.38	5.84	6.09	6.24	6.31	6.33
75°	4.79	5.60	6.00	6.23	6.42	6.58	6.70
90°	4.76	5.70	6.18	6.45	6.59	6.70	7.05
110°	4.87	5.81	6.26	6.58	6.92	7.20	7.50
120°	4.68	5.70	6.19	6.53	6.88	7.23	7.78
135°	4.24	5.22	5.96	6.32	6.64	6.98	7.64
150°	3.66	4.53	5.35	5.84	6.14	6.37	6.88
Run VMG	3.17	3.92	4.63	5.06	5.53	5.95	6.46
Gybe Angles	146.5°	147.0°	146.5°	149.3°	174.5°	177.0°	178.0°