



ORC
Offshore Racing Congress
World leader in rating technology

2020
ORC Club
Certificate

Rating Office

Offshore
Racing
Congress



Certificate

Number **006/20**
Issued On **05/06/2020**
ORC Ref **03880000JU2**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 674kg
Maximum **720kg**
Minimum* **540kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	636.8	0.9422
Non Spin OSN	618.9	0.9695

Sails Limitations

Headsails **5** Spinnakers **4**

Asymmetric on centerline

Spinnaker configuration
Symmetric: **No**
Asymmetric: **Yes 119.60**
Flying H/S: **No**
Spin. Pole: **Yes**

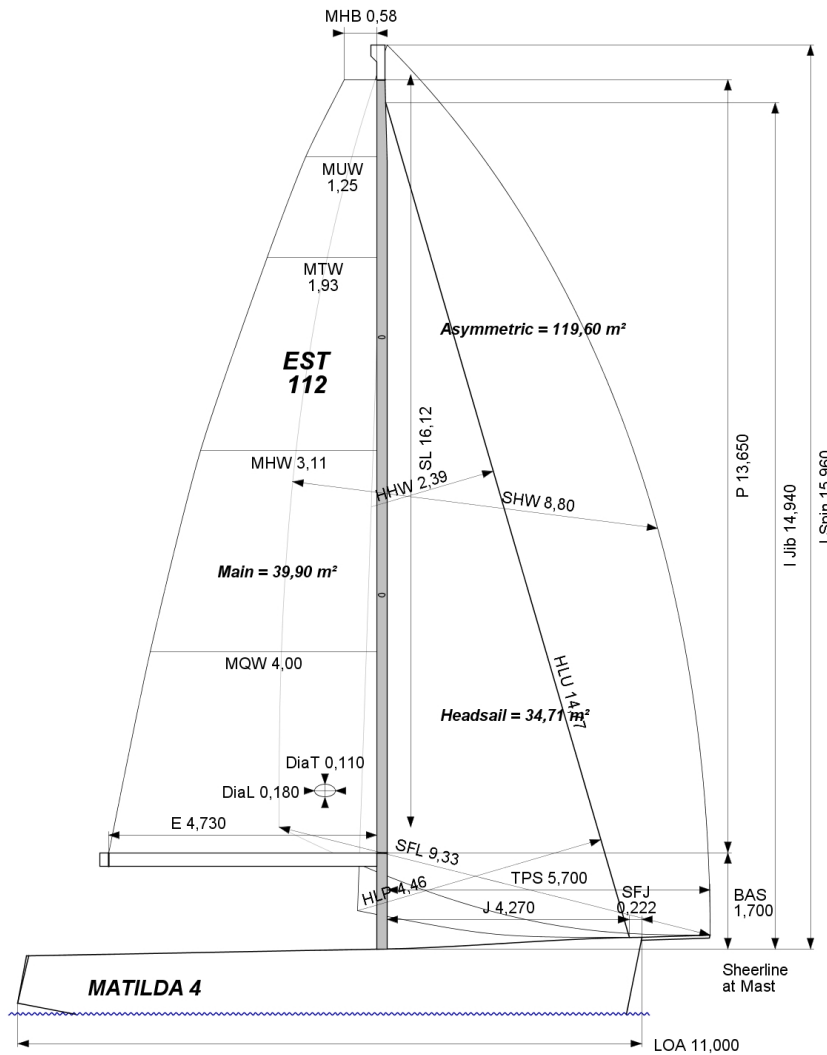
Class Division Length

CDL = 9.511

Stability (Measured)

Limit Positive Stab.: **115.7°**
Stability Index: **114.9**

Owner



BOAT		GPH	HULL			
Name Matilda 4 Sail Nr EST-112		599.6	Data File EST112	LOA 11.000m		
CLASS			Offset File J112E NK.off	MB 3.596m		
Class J-112E			Displacement 5,170kg	Draft 2.043m		
Designer JOHNSTONE			IMS Division Cruiser/Racer	Dynamic All. 0.119%		
Builder J-BOATS			Plan Review	Construction Cored		
Series 10/2015			Fiber Rigging No	Aramid Core No		
Age Date 07/2019			Crew Arm Ex	Carbon Rudder No		
Age Allowance 0.163%				Light Stanchions No		
COMMENTS			IMSL 10.038m	VCGD 0.098m	Sink 18.79kg/mm	
			RL 9.001m	VCGM 0.060m	WS 25.56m²	
			LSM0 9.851m	Displacement/Length ratio 5.4082		
			Water Ballast 0	Trim Tab No		
			BLR Index 0.0000			
PROPELLER			CENTERBOARD			
Installation Strut	PRD 0.380		N/A			
Type Folding 2 blades	PBW 0.100					
	PIPA 0.0031					
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	584.2			658.4		
Time on Time	1.0270			1.0252		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	680.2	532.3	480.7	881.0	658.9	586.2
Time on Time	0.9924	1.2681	1.4042	0.7662	1.0245	1.1515

2020

ORC Club Certificate Appendix

BOAT	
Name Matilda 4	Certificate Number 006/20
Sail Nr EST-112	Issued On 05/06/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1020.0	837.8	739.9	703.8	690.5	685.3	672.7
52°	662.9	556.3	507.6	490.9	485.0	482.3	475.0
60°	623.7	531.6	493.5	477.6	470.9	467.6	461.3
75°	594.6	514.6	483.0	464.6	451.3	443.6	437.5
90°	598.8	505.6	477.8	461.4	443.1	426.8	407.1
110°	588.2	496.8	462.7	438.5	423.3	411.2	387.9
120°	603.7	504.3	466.8	438.1	411.5	392.5	366.0
135°	677.5	545.6	486.6	456.9	428.5	401.0	344.2
150°	802.9	640.0	541.6	491.7	469.9	448.1	399.0
Run VMG	927.1	739.0	625.3	567.4	539.5	497.8	450.6
Selected Courses							
Windward / Leeward	973.5	788.4	682.6	635.6	615.0	591.6	561.7
Circular Random	819.5	663.7	581.8	535.5	507.5	488.7	462.0
Coastal / Long Distance	968.9	739.8	616.9	553.5	520.4	490.1	440.5
Non Spinnaker	889.6	712.5	616.8	561.0	526.5	503.6	473.1

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	43.1°	41.6°	40.5°	39.4°	39.0°	39.2°	39.2°
Beat VMG	3.53	4.30	4.87	5.11	5.21	5.25	5.35
52°	5.43	6.47	7.09	7.33	7.42	7.46	7.58
60°	5.77	6.77	7.30	7.54	7.64	7.70	7.80
75°	6.05	7.00	7.45	7.75	7.98	8.12	8.23
90°	6.01	7.12	7.53	7.80	8.12	8.43	8.84
110°	6.12	7.25	7.78	8.21	8.51	8.76	9.28
120°	5.96	7.14	7.71	8.22	8.75	9.17	9.84
135°	5.31	6.60	7.40	7.88	8.40	8.98	10.46
150°	4.48	5.62	6.65	7.32	7.66	8.03	9.02
Run VMG	3.88	4.87	5.76	6.34	6.67	7.23	7.99
Gybe Angles	143.5°	147.0°	148.5°	150.5°	152.5°	176.5°	177.0°