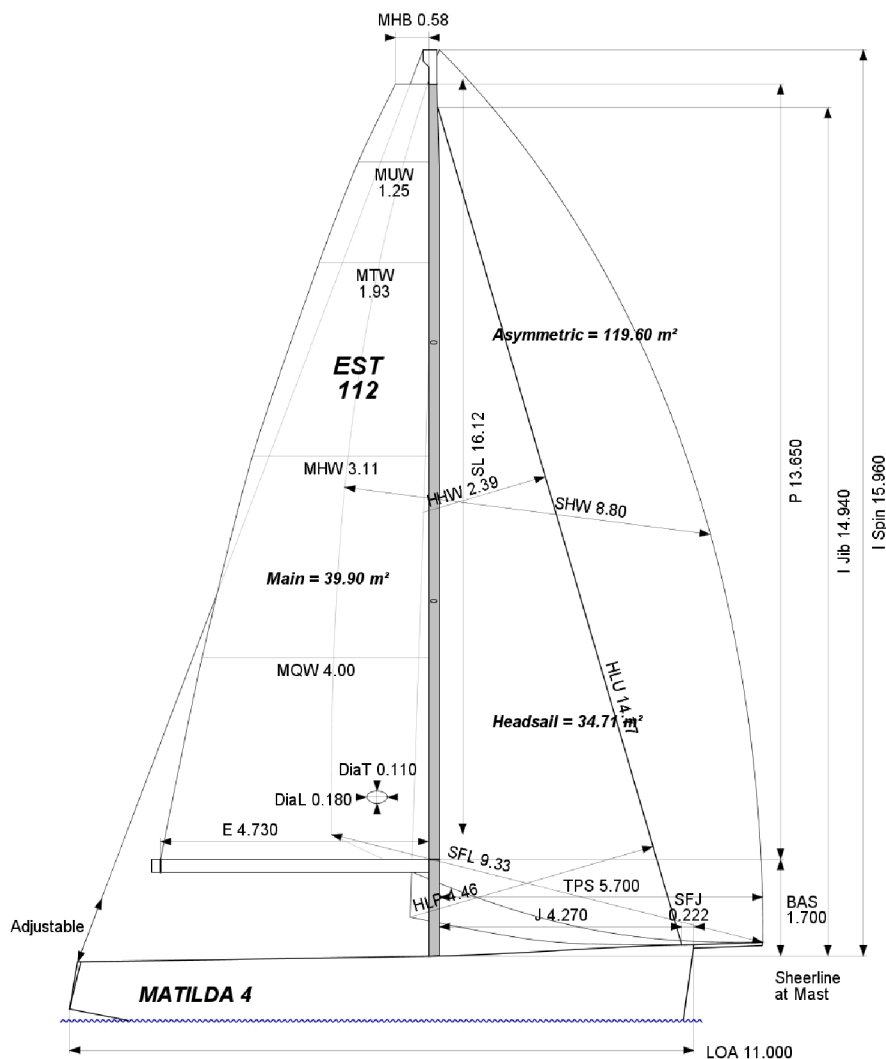




BOAT		GPH	HULL	
Name	Matilda 4	598.5	Data File	EST112
Sail Nr	EST-112		Offset File	J112E NK.off
CLASS			Displacement	5,254kg
Class	J-112E		LOA	11.000m
Designer	JOHNSTONE		MB	3.596m
Builder	J-BOATS		Draft	2.049m
Series	10/2015		IMS Division	Cruiser/Racer
Age Date	07/2019		Plan Review	Dynamic All. 0.128%
Age Allowance	0.163%		Fiber Rigging	No
COMMENTS			Crew Arm Ex	Construction Cored
PROPELLER			Light Stanchions	No
Installation	Strut	PRD 0.380	IMSL	10.068m
Type	Folding 2 blades	PBW 0.100	VCGD	-0.010m
		PIPA 0.0031	Sink	18.87kg/mm
CENTERBOARD			RL	9.187m
			VCGM	-0.053m
			WS	25.70m²
			LSM0	9.907m
			Displacement/Length ratio	5.4034
			Water Ballast	Trim Tab No
			BLR Index	0.0000
			N/A	

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	582.6			655.8		
Time on Time	1.0298			1.0293		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	681.2	530.9	477.3	882.7	656.6	581.3
Time on Time	0.9909	1.2715	1.4143	0.7647	1.0280	1.1611

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ORC Club
Certificate

Rating Office
Estonian Yachting Union
Purje 8, maja 3
11911 Tallinn
Estonia

ESTONIAN
YACHTING
UNION

Certificate
Number 138/20
Issued On 04/08/2020
ORC Ref 03880000NW9
VPP Ver. 2020 1.02
Valid until 31/12/2020

Crew Weight

Default	679kg
Maximum	770kg
Minimum*	578kg

*when applied by the NoR and SI
Non Manual Pwr No

Special Scoring

ToD	ToT
Non Spin GPH 636.0	0.9434
Non Spin OSN 617.6	0.9716

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 = 9.621

Stability (Measured)
Limit Positive Stab.: 120.9°
Stability Index: 120.3

BOAT

Name **Matilda 4**
File **EST112**

Sail Nr **EST-112**
Data in **meters/kilograms**

RIG

Forestay Tension **Aft**
Inner Stay **None Fitted**
Carbon Mast **Yes**
Fiber Rigging **No**
Non-Circular Rigging **No**
Articulated Bowsprit **No**

Spreaders **2**
Runners/Checkstays **0**
Jib Furler **No**
Main Furler **No**

P **13.650**
IG **14.940**
ISP **15.960**
BAS **1.700**
FSD **0.038**

E **4.730**
J **4.270**
SFJ **0.222**
SPL **4.820**
TPS **5.700**

MDT1 **0.110**
MDL1 **0.180**
MDT2 **0.102**
MDL2 **0.146**
TL **1.460**

MW **0.173**
GO **0.198**
BD **0.237**
MWT **108.50**
MCG **4.470**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **26/07/2020**

SG **1.0000**

FFM **1.324**

FF **1.329**

SFFP **0.488**

FAM **1.021**

FA **1.034**

SAFP **10.805**

W1 **75.5**

PD1 **571.7**

WD **12.330**

W2 **75.5**

PD2 **569.4**

GSA **1.0**

W3 **75.5**

PD3 **567.6**

RSA **1.0**

W4 **75.5**

PD4 **567.1**

PLM **9000.0**

LCF from stem on CL / on sheer **5.896 / 6.138**

Maximum beam station from stem **6.647**

RM Measured **128.9kg·m**

RM Default **127.3kg·m**

Limit of positive stability / Stab.Index **120.9° / 120.3**

Freeboard at mast at 4.492 **1.142**

MIZZEN RIG AND SAILS

N/A

COMMENTS

PROPELLER

Installation **Strut**

Type **Folding 2 blades**

Twin Screw **No**

PRD **0.380**

PBW **0.100**

PIPA **0.0031**

ST1 **0.065**

ST2 **0.180**

ST3 **0.180**

ST4 **0.090**

ST5 **0.300**

EDL **2.130**

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

Certificate

Number **138/20**

ORC Ref **03880000NW9**

Issued On **04/08/2020**

VPP Ver. **2020 1.02**

Valid until **31/12/2020**

EJL

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SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.58	1.25	1.93	3.11	4.00	39.91	SLO03	20/02/2020	One sails	Unknown	big
2	0.21	1.08	1.84	3.12	4.05	39.27	SLO03	20/02/2020	One sails	Unknown	small

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
4	0.13	0.73	1.34	2.39	3.43	4.46	14.77	104%	34.71	Y	No	SLO03	20/02/2020	One sail	Unknow	J-1
2	0.13	0.68	1.28	2.40	3.47	4.47	14.77	105%	34.67	Y	No	SLO03	20/02/2020	One sail	Unknow	J-0
1	0.13	0.73	1.33	2.35	3.38	4.46	14.77	104%	34.39	Y	No	SLO03	20/02/2020	One sail	Unknow	J-2
5	0.04	0.89	1.79	3.30	4.27	4.61	11.99	108%	34.26		Inner	SLO03	20/02/2020	One sail	Unknow	Stay sail
3	0.14	0.52	0.97	1.99	3.12	4.33	13.78	101%	28.71	Y	No	SLO03	20/02/2020	One Sail	Unknow	J-3

SYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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ASYMMETRIC SPINNAKERS (4)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
2a	17.23	15.00	16.12	8.80	9.33	119.61	asym	EST7	20/07/2019	One sails	Unknown	A1
5	18.21	14.01	16.11	8.73	9.23	118.55	asym	SLO03	29/06/2020	One Sails	Unknown	A4
3	17.58	14.71	16.15	8.71	9.15	118.37	asym	SLO03	20/02/2020	One sails	Unknown	A2
4	16.30	14.96	15.63	5.40	6.33	72.76	asym	SLO03	20/02/2020	One sails	Unknown	A0

MEASUREMENT INVENTORY

Measurer **K-H Tagu EST7**

Date **26/07/2020**

Comment **Pirita**

Internal Ballast total = **511.0**

Id	Item	Weight	Distance	VCG	Description
Id	Item	Maker	Model		
1	Engine	Volvo Penta	D1-20		
Id	Item	Weight	Description		

MEASUREMENT INVENTORY

Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condn	Description
2	Tank	Fuel	plastic	80.0	8.27			43.0 Starport aft cabin
1	Tank	Water	Neopren bag	100.0	2.00			0-0 At the bow

Id	Item	Weight	Distance	VCG	Description
8	Ballast	100.0	4.27		Lot of pieces
7	Ballast	150.0	5.77		Lot of pieces
6	Ballast	85.0	5.22		6pcs (18+17+8+17+12.5+12.5)
5	Ballast	34.0	4.72		2pcs (17+17kg) centerline
4	Ballast	60.0	5.22		3pcs (25+18+17kg) portside
3	Ballast	15.0	4.67		15kg portside
1	Battery		4.73		2x165ah starport side
2	Misc		10.00		Autopilot
1	Misc		8.27		Air heater, port aft cabin

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ORC Club Certificate Appendix

BOAT			
Name	Matilda 4	Certificate Number	138/20
Sail Nr	EST-112	Issued On	04/08/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1022.2	839.9	737.5	696.7	681.2	675.1	661.6
52°	664.0	557.0	506.9	488.2	481.5	478.3	472.2
60°	624.4	531.9	493.2	476.0	467.9	463.7	458.8
75°	596.1	514.8	483.0	464.1	449.6	439.8	432.1
90°	599.1	505.2	475.0	461.4	443.1	425.9	402.8
110°	588.9	497.0	462.5	437.2	420.1	407.7	384.1
120°	604.9	504.7	467.1	438.4	411.1	389.2	361.9
135°	678.6	546.6	487.1	457.5	429.4	402.1	345.4
150°	804.0	641.1	542.4	492.3	470.4	448.9	400.6
Run VMG	928.4	740.3	626.3	568.1	540.1	498.3	451.3
Selected Courses							
Windward / Leeward	975.3	790.1	681.9	632.4	610.6	586.7	556.4
Circular Random	819.8	663.4	580.6	533.6	504.9	485.5	458.1
Coastal / Long Distance	970.6	741.2	616.3	551.3	517.6	486.7	437.1
Non Spinnaker	890.3	712.4	616.0	559.5	524.5	501.4	471.1

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°	41.8°	40.5°	39.0°	39.0°	38.6°	38.6°
Beat VMG	3.52	4.29	4.88	5.17	5.28	5.33	5.44
52°	5.42	6.46	7.10	7.37	7.48	7.53	7.62
60°	5.77	6.77	7.30	7.56	7.69	7.76	7.85
75°	6.04	6.99	7.45	7.76	8.01	8.19	8.33
90°	6.01	7.13	7.58	7.80	8.12	8.45	8.94
110°	6.11	7.24	7.78	8.23	8.57	8.83	9.37
120°	5.95	7.13	7.71	8.21	8.76	9.25	9.95
135°	5.30	6.59	7.39	7.87	8.38	8.95	10.42
150°	4.48	5.62	6.64	7.31	7.65	8.02	8.99
Run VMG	3.88	4.86	5.75	6.34	6.67	7.22	7.98
Gybe Angles	144.0°	147.0°	148.5°	150.5°	152.5°	176.5°	177.5°