

2020 ORC Club Certificate

Rating Office

EYU
Purje 8
11911, Tallinn
Estonia

Certificate

Number **Est209**
Issued On **5/14/2020**
ORC Ref **0358000014N**
VPP Ver. **2020 1.01**
Valid until **31/12/2020**

Crew Weight

Default 857kg
Maximum **800kg**
Minimum* **600kg**
*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **623.0 0.9631**
Non Spin OSN **603.8 0.9937**

Sails Limitations

Headsails **6** Spinnakers **4**

Spinnaker configuration

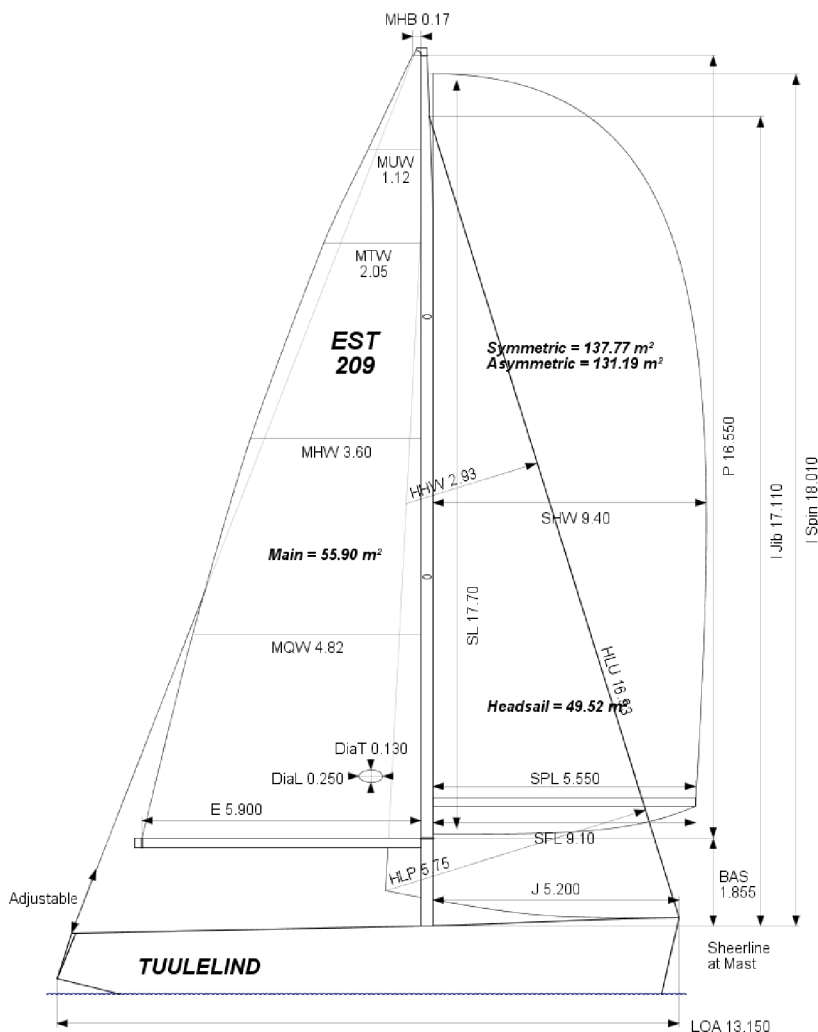
Symmetric: **Yes 137.76**
Asymmetric: **Yes 131.19**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = **10.622**

Stability (Estimated)

Limit Positive Stab.: **121.5°**
Stability Index: **125.3**



BOAT			GPH		HULL			
Name TUULELIND			588.0		Data File	Est0209	LOA	13.150m
Sail Nr EST 209					Offset File	VA44.OFF	MB	4.218m
					Displacement	9,800kg	Draft	2.179m
CLASS					IMS Division	Cruiser/Racer	Dynamic All.	0.204%
Class					Plan Review		Construction	Cored
Designer					Fiber Rigging	No	Aramid Core	No
Builder					Crew Arm Ex		Carbon Rudder	No
Series							Light Stanchions	No
Age Date					IMSL	11.729m	VCGD	0.049m Sink
Age Allowance					RL	9.513m	VCGM	0.017m WS
								38.01m
COMMENTS					LSM0	11.661m	Displacement/Length ratio	
					Water Ballast		Trim Tab	No
					BLR Index	0.0000		
PROPELLER					CENTERBOARD			
Installation					N/A			
Type								
Strut			PRD	0.400				
Folding 3 blades			PIPA	0.0035				
SCORING OPTIONS								
		COASTAL / LONG DISTANCE			WINDWARD / LEEWARD			
Time on Distance		570.4			641.0			
Time on Time		1.0519			1.0531			
Triple Number		Low	Medium	High	Low	Medium	High	
Time on Distance		686.5	517.4	456.6	893.7	645.6	553.2	
Time on Time		0.9832	1.3046	1.4783	0.7553	1.0456	1.2202	

BOAT										INCLINING TEST AND FREEBOARDS									
Name TUULELIND					Sail Nr EST 209					Inclining Test Club Estimated VCG									
File Est0209					Data in meters/kilograms					Flotation date 27/05/2016 SG									
FFM					FF 1.598					SFFP 0.400									
FAM					FA 1.288					SAFP 12.740									
RIG Forestay Tension Aft Spreaders 2 Inner Stay None Fitted Runners/Checkstays 0 Carbon Mast No Jib Furler No Fiber Rigging No Main Furler No Non-Circular Rigging No Articulated Bowsprit No										LCF from stem on CL / on sheer 6.983 / 7.260 Maximum beam station from stem 8.200 RM Measured 300.9kg·m RM Default 292.1kg·m Limit of positive stability / Stab.Index 121.5° / 125.3 Freeboard at mast at 5.200 1.435									
P 16.550					E 5.900					MDT1 0.130					MW				
IG 17.110					J 5.200					MDL1 0.250					GO				
ISP 18.010					SFJ					MDT2 0.000					BD				
BAS 1.855					SPL 5.550					MDL2 0.000					MWT				
FSD -3.000					TPS					TL -2.000					MCG				
MIZZEN RIG AND SAILS N/A										PROPELLER Installation Strut PRD 0.400 Type Folding 3 blades PBW Twin Screw No PIPA 0.0035 ST1 0.063 ST3 0.175 ST5 0.270 ST2 0.175 ST4 0.100 EDL 3.400									
COMMENTS 										MOVABLE BALLAST N/A									
										CENTERBOARD N/A									
SAILS INVENTORY																			
MAINSAIL (1)																			
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
2	0.17	1.12	2.05	3.60	4.82	55.90	EST 1	25/04/2017		Unknown									
HEADSAILS (3)																			
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment			
3	0.08	0.80	1.50	2.93	4.37	5.75	16.93	111%	49.52	No	No	EST 1	10/05/2016		Unknow				
1	0.07	0.63	1.27	2.64	4.04	5.46	16.80	105%	45.02	No	No	EST 1	25/04/2017		Unknow				
2	0.12	0.61	1.17	2.45	3.80	5.27	16.65	101%	42.22	No	No	EST 1	25/04/2017		Unknow				
SYMMETRIC SPINNAKERS (1)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
1	17.70	17.70	17.70	9.40	9.10	137.77	EST 1	10/05/2016		Unknown									
ASYMMETRIC SPINNAKERS (1)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment							
1	18.50	16.10	17.30	9.15	8.90	131.20	asym	EST 1	10/05/2016										



2020 Measurements Datasheet

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ORC Club Certificate Appendix

BOAT

Name **TUULELIND**
Sail Nr **EST 209**

Certificate Number **Est209**
Issued On **5/14/2020**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1042.9	852.1	743.1	684.6	662.8	653.7	646.2
52°	670.9	558.4	494.5	465.2	454.3	449.7	446.9
60°	626.9	527.5	474.7	451.4	440.4	435.8	432.8
75°	594.0	504.2	461.4	440.8	427.0	416.8	408.3
90°	599.3	499.8	452.6	434.6	423.6	409.3	386.0
110°	598.4	491.9	446.0	422.5	402.3	388.3	369.5
120°	615.7	504.6	452.4	426.6	404.1	382.9	352.9
135°	684.4	552.6	478.2	443.1	420.4	398.6	357.3
150°	811.9	642.8	542.5	479.3	445.0	423.5	383.6
Run VMG	937.5	742.2	626.4	549.2	499.0	460.1	415.8
Selected Courses							
Windward / Leeward	990.2	797.1	684.7	616.9	580.9	556.9	531.0
Circular Random	820.4	657.8	569.8	518.2	486.5	466.0	440.9
Coastal / Long Distance	984.9	746.4	613.2	534.8	495.6	465.4	418.2
Non Spinnaker	882.9	702.3	602.9	543.8	507.1	483.3	454.8

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	44.3°	42.8°	42.0°	41.3°	40.5°	41.1°	40.9°
Beat VMG	3.45	4.22	4.84	5.26	5.43	5.51	5.57
52°	5.37	6.45	7.28	7.74	7.92	8.00	8.06
60°	5.74	6.82	7.58	7.98	8.18	8.26	8.32
75°	6.06	7.14	7.80	8.17	8.43	8.64	8.82
90°	6.01	7.20	7.95	8.28	8.50	8.80	9.33
110°	6.02	7.32	8.07	8.52	8.95	9.27	9.74
120°	5.85	7.13	7.96	8.44	8.91	9.40	10.20
135°	5.26	6.52	7.53	8.12	8.56	9.03	10.08
150°	4.43	5.60	6.64	7.51	8.09	8.50	9.38
Run VMG	3.84	4.85	5.75	6.56	7.21	7.82	8.66
Gybe Angles	144.5°	148.0°	150.0°	154.0°	162.0°	180.0°	180.0°