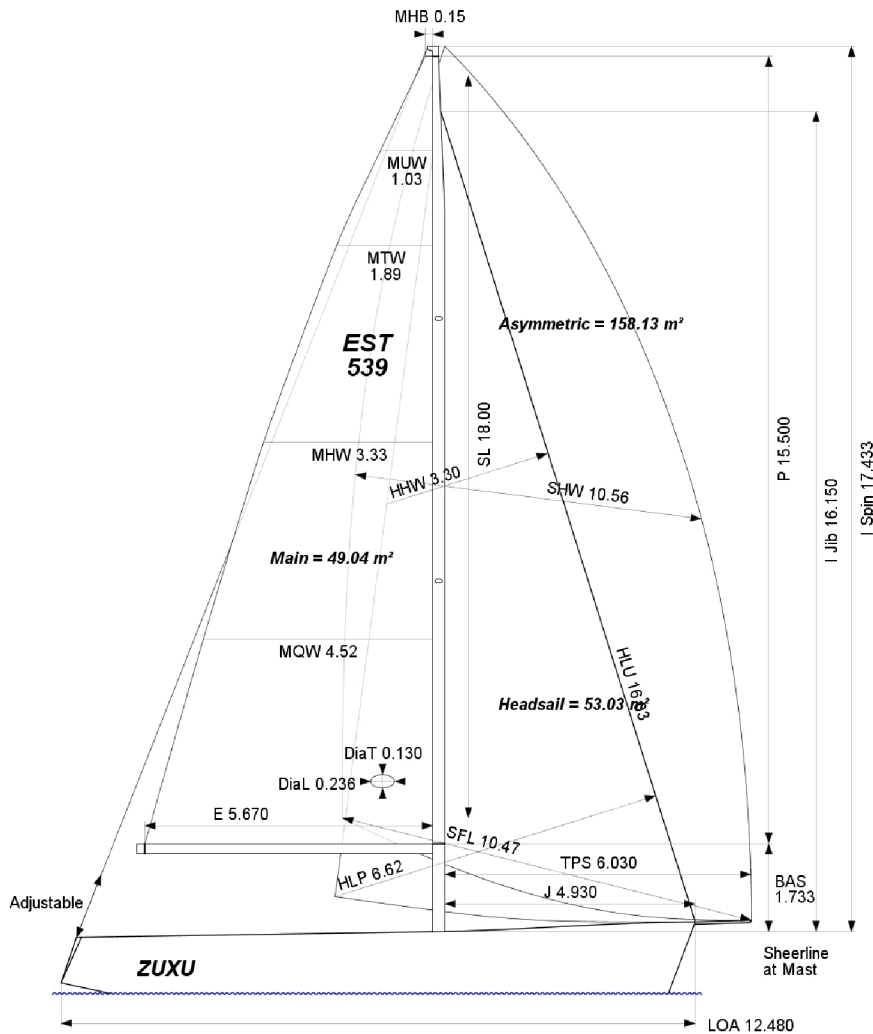




ORC
Offshore Racing Congress
World leader in rating technology

2020
ORC Club
Certificate

Rating Office

Estonian Yachting Union
Purje 8, maja 3
11911 Tallinn
Estonia



ESTONIAN
YACHTING
UNION

Certificate

Number **093/20**
Issued On **02/07/2020**
ORC Ref **03880000LS3**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 804kg
Maximum **807kg**
Minimum* **605kg**
*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **611.3 0.9815**
Non Spin OSN **594.9 1.0086**

Sails Limitations

Headsails **6** Spinnakers **4**
Asymmetric on centerline
Spinnaker configuration
Symmetric: **No**
Asymmetric: **Yes 158.13**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 10.617

Stability (Estimated)

Limit Positive Stab.: **123.7°**
Stability Index: **127.0**

BOAT		GPH		HULL			
Name ZUXU Sail Nr EST 539		578.5		Data File EST539		LOA 12.480m	
				Offset File COMET41C.OFF		MB 3.922m	
				Displacement 8,100kg		Draft 2.177m	
CLASS				IMS Division Cruiser/Racer		Dynamic All. 0.015%	
Class COMET 41S				Plan Review		Construction Cored	
Designer A.VALLICELLI & C.				Fiber Rigging No		Aramid Core No	
Builder COMAR				Crew Arm Ex		Carbon Rudder No	
Series 08/2005				Light Stanchions			
Age Date 03/2008				IMSL 11.318m		VCGD -0.080m Sink 24.09kg/mm	
Age Allowance 0.487%				RL 9.921m		VCGM -0.103m WS 32.10m	
COMMENTS				LSM0 11.153m		Displacement/Length ratio 5.8386	
				Water Ballast Trim Tab No			
				BLR Index 0.0000			
PROPELLER				CENTERBOARD			
Installation Strut		PRD 0.400					
Type Folding 2 blades		PBW 0.110		N/A			
		PIPA 0.0027					
SCORING OPTIONS							
	COASTAL / LONG DISTANCE				WINDWARD / LEEWARD		
Time on Distance	563.4				633.2		
Time on Time	1.0650				1.0660		
Triple Number	Low	Medium	High	Low	Medium	High	
Time on Distance	659.4	512.8	462.5	854.8	634.1	560.7	
Time on Time	1.0236	1.3164	1.4595	0.7897	1.0645	1.2038	

BOAT Name ZUXU Sail Nr EST 539 File EST539 Data in meters/kilograms										INCLINING TEST AND FREEBOARDS Inclining Test Enter VCG directly Flotation date 05/06/2020 SG 1.0249 VCGDe -0.080 FFM 1.411 FF 1.411 SFFP 0.341 FAM 1.091 FA 1.091 SAFP 12.083 LCF from stem on CL / on sheer 6.973 / 7.224 Maximum beam station from stem 7.970 RM Measured 212.5kg·m RM Default 203.7kg·m Limit of positive stability / Stab.Index 123.7° / 127.0 Freeboard at mast at 4.930 1.225									
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 P 15.500 E 5.670 MDT1 0.130 MW 0.000 IG 16.150 J 4.930 MDL1 0.236 GO 0.000 ISP 17.433 SFJ 0.000 MDT2 0.000 BD BAS 1.733 SPL 4.930 MDL2 0.000 MWT FSD 0.036 TPS 6.030 TL -2.000 MCG										PROPELLER Installation Strut PRD 0.400 Type Folding 2 blades PBW 0.110 Twin Screw No PIPA 0.0027 ST1 0.042 ST3 0.135 ST5 0.325 ST2 0.135 ST4 0.088 EDL 1.975									
MIZZEN RIG AND SAILS N/A										MOVABLE BALLAST N/A									
COMMENTS 										CENTERBOARD N/A									
SAILS INVENTORY																			
MAINSAIL (1)																			
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
2	0.15	1.03	1.89	3.33	4.52	49.04				Unknown									
HEADSAILS (4)																			
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment			
1a	0.09	0.84	1.65	3.30	4.94	6.62	16.03	134%	53.03	No			01/06/2020		Unknown				
3	0.09	0.79	1.53	3.12	4.79	6.54	16.03	133%	51.21	No			01/06/2020		Unknown				
2	0.09	0.66	1.26	2.50	3.79	5.14	15.97	104%	40.61	No			01/06/2020		Unknown				
4	0.09	0.65	1.23	2.46	3.75	5.09	15.69	103%	39.39	No			02/06/2020		Dacron				
SYMMETRIC SPINNAKERS (0)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
ASYMMETRIC SPINNAKERS (1)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment							
2	18.95	17.05	18.00	10.56	10.47	158.13	asym		23/06/2020	North Sials	Unknown								



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2020
Measurements
Datasheet

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2020

ORC Club Certificate Appendix

BOAT			
Name	ZUXU	Certificate Number	093/20
Sail Nr	EST 539	Issued On	02/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	976.9	807.0	712.3	670.4	652.1	643.7	637.9
52°	636.5	535.3	486.4	467.4	460.1	456.3	454.3
60°	599.6	510.8	472.9	456.3	448.1	443.8	440.6
75°	571.0	494.3	463.5	446.5	434.0	424.8	416.3
90°	576.2	493.8	459.7	444.3	429.1	414.7	392.7
110°	578.2	483.4	448.3	426.7	411.6	400.2	380.1
120°	590.7	490.2	451.9	427.7	404.2	384.5	361.0
135°	664.7	531.8	470.2	442.9	419.6	395.7	349.3
150°	787.0	629.2	528.8	475.0	453.3	435.6	398.1
Run VMG	908.8	726.5	610.6	548.3	520.9	486.5	440.4
Selected Courses							
Windward / Leeward	942.8	766.7	661.4	609.3	586.5	565.1	539.2
Circular Random	792.7	641.3	561.2	515.6	488.2	470.4	447.1
Coastal / Long Distance	939.4	719.6	597.1	531.6	498.9	470.6	426.6
Non Spinnaker	853.1	684.0	592.3	538.5	505.1	483.2	455.5

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	43.5°	42.0°	41.1°	39.8°	38.8°	39.0°	38.6°
Beat VMG	3.69	4.46	5.05	5.37	5.52	5.59	5.64
52°	5.66	6.73	7.40	7.70	7.83	7.89	7.93
60°	6.00	7.05	7.61	7.89	8.03	8.11	8.17
75°	6.30	7.28	7.77	8.06	8.30	8.47	8.65
90°	6.25	7.29	7.83	8.10	8.39	8.68	9.17
110°	6.23	7.45	8.03	8.44	8.75	9.00	9.47
120°	6.09	7.34	7.97	8.42	8.91	9.36	9.97
135°	5.42	6.77	7.66	8.13	8.58	9.10	10.31
150°	4.57	5.72	6.81	7.58	7.94	8.27	9.04
Run VMG	3.96	4.96	5.90	6.57	6.91	7.40	8.17
Gybe Angles	143.5°	147.0°	147.5°	150.5°	152.0°	176.0°	178.0°