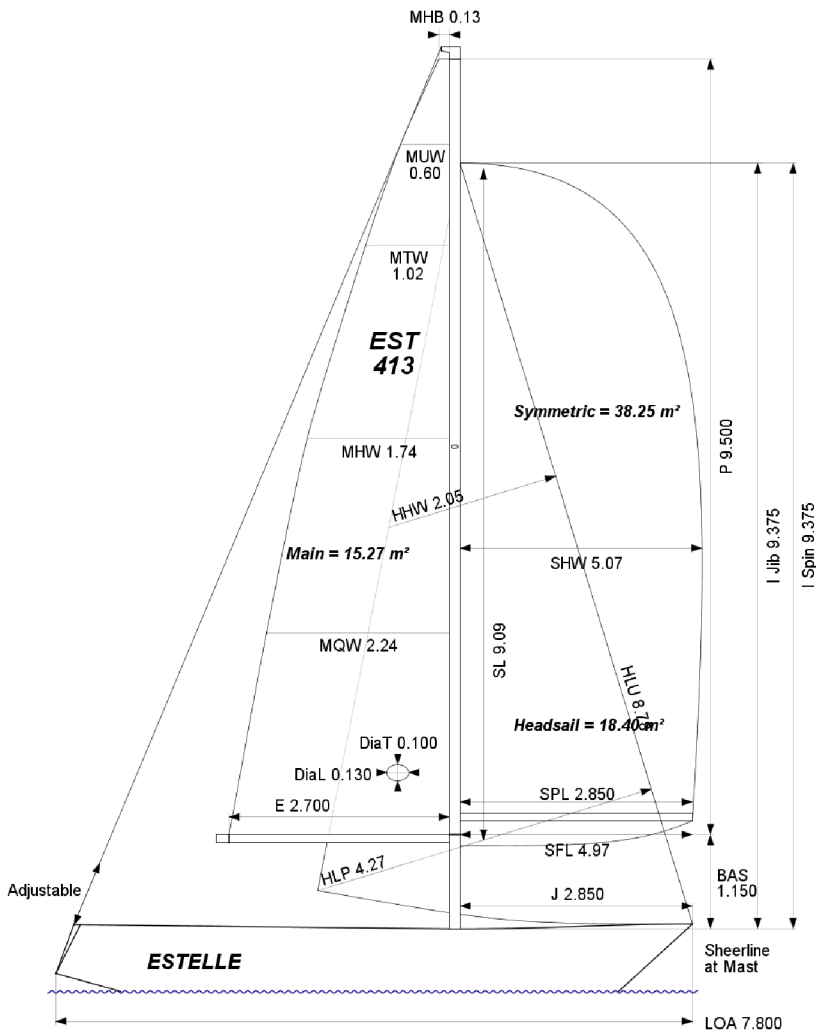




ORC
Offshore Racing Congress
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2020
ORC Club
Certificate

Rating Office

Estonian Yachting Union
Purje 8, maja 3
11911 Tallinn
Estonia



ESTONIAN
YACHTING
UNION

Certificate

Number **037/20**
Issued On **05/06/2020**
ORC Ref **03880000JVV**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 354kg
Maximum **400kg**
Minimum* 300kg
*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **799.7 0.7503**
Non Spin OSN **772.5 0.7767**

Sails Limitations

Headsails **5** Spinnakers **4**
Woven Polyester

Spinnaker configuration
Symmetric: **Yes 38.25**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 5.916

Stability (Estimated)

Limit Positive Stab.: **116.4°**
Stability Index: **112.6**

BOAT		GPH		HULL		
Name	ESTELLE	769.2		Data File	EST413 LOA 7.800m	
Sail Nr	EST-413			Offset File	Albin78_sc.off MB 2.760m	
				Displacement	2,300kg Draft 1.455m	
CLASS				IMS Division	Cruiser/Racer Dynamic All. 0.520%	
Class	ALBIN 78			Plan Review	Construction Solid	
Designer	Peter Norlin			Fiber Rigging	No Aramid Core No	
Builder	Albin Marine			Crew Arm Ex	Carbon Rudder No	
Series	01/1978				Light Stanchions No	
Age Date	01/1978			IMSL	6.266m VCGD -0.100m Sink 8.90kg/mm	
Age Allowance	0.487%			RL	5.570m VCGM -0.046m WS 12.77m	
COMMENTS				LSM0	6.276m Displacement/Length ratio 9.3042	
				Water Ballast	0 Trim Tab No	
				BLR Index	0.0000	
PROPELLER				CENTERBOARD		
Installation	Strut	PRD	0.360	N/A		
Type	Folding 2 blades	PIPA	0.0029			
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	746.6			827.5		
Time on Time	0.8036			0.8157		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	880.7	681.8	608.1	1129.7	832.7	721.5
Time on Time	0.7664	0.9900	1.1100	0.5975	0.8106	0.9355

BOAT Name ESTELLE Sail Nr EST-413 File EST413 Data in meters/kilograms		INCLINING TEST AND FREEBOARDS Inclining Test Enter VCG directly Flotation date 05/06/2020 SG 1.0259 VCGDe -0.100 FFM 0.832 FF 0.832 SFFP 0.483 FAM 0.815 FA 0.815 SAFF 7.500 LCF from stem on CL / on sheer 4.143 / 4.326 Maximum beam station from stem 4.541 RM Measured 32.0kg·m RM Default 28.8kg·m Limit of positive stability / Stab.Index 116.4° / 112.6 Freeboard at mast at 2.850 0.773														
RIG Forestay Tension Aft Spreaders 1 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 9.500 E 2.700 MDT1 0.100 MW 0.130 IG 9.375 J 2.850 MDL1 0.130 GO 0.130 ISP 9.375 SFJ MDT2 0.100 BD BAS 1.150 SPL 2.850 MDL2 0.130 MWT FSD TPS TL 0.000 MCG																
MIZZEN RIG AND SAILS N/A		PROPELLER Installation Strut PRD 0.360 Type Folding 2 blades PBW Twin Screw PIPA 0.0029 ST1 0.048 ST3 0.170 ST5 0.200 ST2 0.170 ST4 0.098 EDL 1.075														
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					
1	0.13	0.60	1.02	1.74	2.24	15.27										
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.06	0.52	1.02	2.05	3.14	4.27	8.78	150%	18.40		No					
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	9.09	9.09	9.09	5.07	4.97	38.26										
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				



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2020
Measurements
Datasheet

Certificate
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UNION

2020

ORC Club Certificate Appendix

BOAT			
Name	ESTELLE	Certificate Number	037/20
Sail Nr	EST-413	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	1297.6	1093.6	968.5	894.7	859.1	846.9	851.1
52°	853.7	720.8	655.0	626.7	610.7	601.7	598.5
60°	810.5	686.3	635.4	612.0	596.0	584.2	576.3
75°	781.7	666.5	621.5	598.9	580.8	564.5	543.4
90°	787.1	654.6	606.5	579.9	559.8	549.9	527.3
110°	779.0	650.0	602.2	572.4	545.0	523.0	497.5
120°	804.4	665.4	610.0	579.9	551.9	526.7	489.9
135°	886.2	726.3	637.1	599.3	571.4	544.5	500.3
150°	1023.9	821.2	700.0	629.8	597.0	571.0	523.3
Run VMG	1182.3	945.5	801.8	700.6	635.8	601.8	551.8
Selected Courses							
Windward / Leeward	1239.9	1019.5	885.2	797.7	747.4	724.4	701.5
Circular Random	1057.3	855.1	746.5	683.3	644.7	620.0	591.0
Coastal / Long Distance	1234.1	957.0	799.5	704.8	654.6	619.9	564.6
Non Spinnaker	1111.4	893.6	775.3	705.7	662.7	635.2	603.7

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	42.8°	41.6°	42.0°	39.8°	39.0°	39.0°	39.8°
Beat VMG	2.77	3.29	3.72	4.02	4.19	4.25	4.23
52°	4.22	4.99	5.50	5.74	5.89	5.98	6.02
60°	4.44	5.25	5.67	5.88	6.04	6.16	6.25
75°	4.61	5.40	5.79	6.01	6.20	6.38	6.62
90°	4.57	5.50	5.94	6.21	6.43	6.55	6.83
110°	4.62	5.54	5.98	6.29	6.61	6.88	7.24
120°	4.48	5.41	5.90	6.21	6.52	6.84	7.35
135°	4.06	4.96	5.65	6.01	6.30	6.61	7.20
150°	3.52	4.38	5.14	5.72	6.03	6.30	6.88
Run VMG	3.05	3.81	4.49	5.14	5.66	5.98	6.52
Gybe Angles	149.0°	153.5°	155.0°	173.0°	180.0°	180.0°	180.0°