



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 **032/20**
Issued On **05/06/2020**
ORC Ref **03880000K13**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 341kg
Maximum **330kg**
Minimum* **245kg**
*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **859.6 0.6980**
Non Spin OSN **826.1 0.7263**

Sails Limitations

Headsails **1** Spinnakers **4**
Woven Polyester

Spinnaker configuration

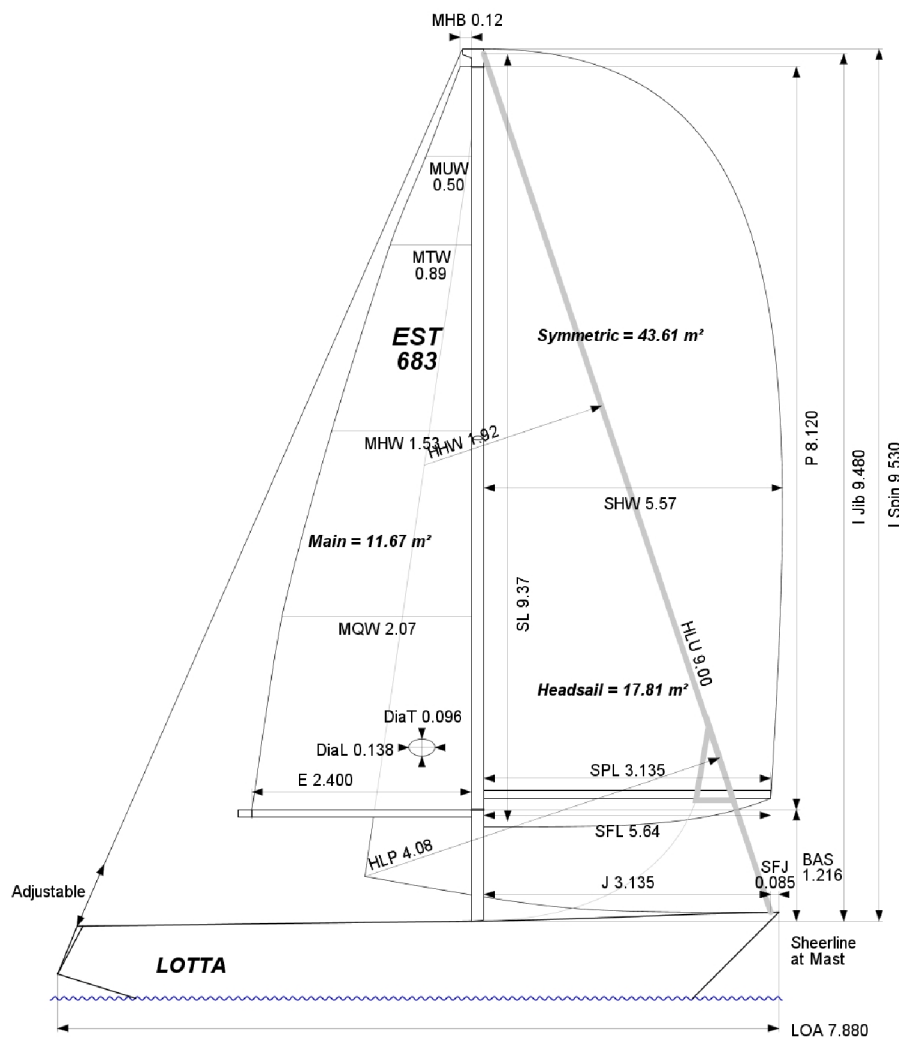
Symmetric: **Yes 43.61**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 5.446

Stability (Estimated)

Limit Positive Stab.: **119.5°**
Stability Index: **116.2**



BOAT			GPH		HULL		
Name LOTTA Sail Nr EST-683			811.1		Data File EST683 LOA 7.880m		
					Offset File GR0048.BOF MB 2.672m		
					Displacement 2,180kg Draft 1.409m		
CLASS					IMS Division Cruiser/Racer Dynamic All. 0.498%		
					Plan Review Construction Solid		
					Fiber Rigging No Aramid Core No		
					Crew Arm Ex Carbon Rudder No		
					Light Stanchions No		
Class ALBIN 79					IMSL 6.239m VCGD -0.127m Sink 8.65kg/mm		
Designer ROLS MAGNUSSON					RL 4.653m VCGM -0.034m WS 12.58m		
Builder ALBIN MARINE					LSM0 6.113m Displacement/Length ratio 9.5432		
Series 05/1975					Water Ballast 0 Trim Tab No		
Age Date 05/1975					BLR Index 0.0000		
Age Allowance 0.487%							
COMMENTS							
PROPELLER							
Installation		Shaft exposed	PRD	0.340	CENTERBOARD		
Type		Solid 2 blades	PBW	0.090			
			PIPA	0.0130			
SCORING OPTIONS							
		COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance		784.6			876.4		
Time on Time		0.7647			0.7702		
Triple Number		Low	Medium	High	Low	Medium	High
Time on Distance		949.0	713.4	627.4	1225.3	885.2	752.0
Time on Time		0.7113	0.9462	1.0758	0.5509	0.7625	0.8976

BOAT Name LOTTA Sail Nr EST-683 File EST683 Data in meters/kilograms		INCLINING TEST AND FREEBOARDS Inclining Test Club Estimated VCG Flotation date 05/06/2020 SG 1.0268 FFM 0.928 FF 0.928 SFFP 0.870 FAM 0.791 FA 0.791 SAFF 7.600 LCF from stem on CL / on sheer 4.251 / 4.443 Maximum beam station from stem 4.470 RM Measured 29.1kg·m RM Default 28.2kg·m Limit of positive stability / Stab.Index 119.5° / 116.2 Freeboard at mast at 3.220 0.851														
RIG Forestay Tension Aft Spreaders 1 Inner Stay None Fitted Runners/Checkstays 0 Carbon Mast No Jib Furler Yes Fiber Rigging No Main Furler No Non-Circular Rigging No Articulated Bowsprit No P 8.120 E 2.400 MDT1 0.096 MW 0.138 IG 9.480 J 3.135 MDL1 0.138 GO 0.167 ISP 9.530 SFJ 0.085 MDT2 0.096 BD 0.085 BAS 1.216 SPL 3.135 MDL2 0.138 MWT FSD 0.000 TPS TL 0.000 MCG		PROPELLER Installation Shaft exposed PRD 0.340 Type Solid 2 blades PBW 0.090 Twin Screw No PIPA 0.0130 PSA 22.000 PHL 0.060 ST3 0.105 ESL 0.400 PSD 0.025 ST1 0.033 ST4 0.055 PHD 0.040 ST2 0.103 ST5 0.115														
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					
1	0.12	0.50	0.89	1.53	2.07	11.67					* Copied from legacy					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.06	0.46	0.92	1.92	2.99	4.08	9.00	130%	17.81	No	EST8		30/05/2020			Unknow
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	9.37	9.37	9.37	5.57		43.61				Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				



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2020
Measurements
Datasheet

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EJL
ESTONIAN
YACHTING
UNION

2020

ORC Club Certificate Appendix

BOAT			
Name	LOTTA	Certificate Number	032/20
Sail Nr	EST-683	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	1479.6	1219.0	1076.5	978.9	920.4	899.2	907.4
52°	954.2	796.4	704.2	655.2	630.9	619.2	616.9
60°	898.4	751.9	670.2	633.4	613.3	600.7	593.9
75°	863.1	721.6	647.4	616.6	597.0	580.9	559.3
90°	838.7	686.0	620.9	593.9	581.6	572.1	542.1
110°	815.7	667.4	609.5	578.1	551.2	531.0	512.2
120°	839.4	682.3	615.4	581.9	552.8	527.5	494.2
135°	922.7	744.5	642.3	600.8	571.1	542.7	497.2
150°	1064.5	844.3	711.4	634.3	599.0	571.7	522.3
Run VMG	1229.2	973.6	819.1	715.2	644.4	606.5	554.5
Selected Courses							
Windward / Leeward	1354.4	1096.3	947.8	847.1	782.4	752.9	731.0
Circular Random	1134.1	908.7	785.9	713.5	669.1	641.2	610.7
Coastal / Long Distance	1341.9	1025.3	848.3	737.8	677.3	637.7	578.9
Non Spinnaker	1220.7	970.5	831.9	748.8	697.0	664.1	627.9

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	44.6°	43.1°	42.9°	42.8°	41.4°	41.3°	42.2°
Beat VMG	2.43	2.95	3.34	3.68	3.91	4.00	3.97
52°	3.77	4.52	5.11	5.49	5.71	5.81	5.84
60°	4.01	4.79	5.37	5.68	5.87	5.99	6.06
75°	4.17	4.99	5.56	5.84	6.03	6.20	6.44
90°	4.29	5.25	5.80	6.06	6.19	6.29	6.64
110°	4.41	5.39	5.91	6.23	6.53	6.78	7.03
120°	4.29	5.28	5.85	6.19	6.51	6.83	7.28
135°	3.90	4.84	5.60	5.99	6.30	6.63	7.24
150°	3.38	4.26	5.06	5.68	6.01	6.30	6.89
Run VMG	2.93	3.70	4.40	5.03	5.59	5.94	6.49
Gybe Angles	148.0°	152.0°	152.0°	164.0°	180.0°	180.0°	180.0°