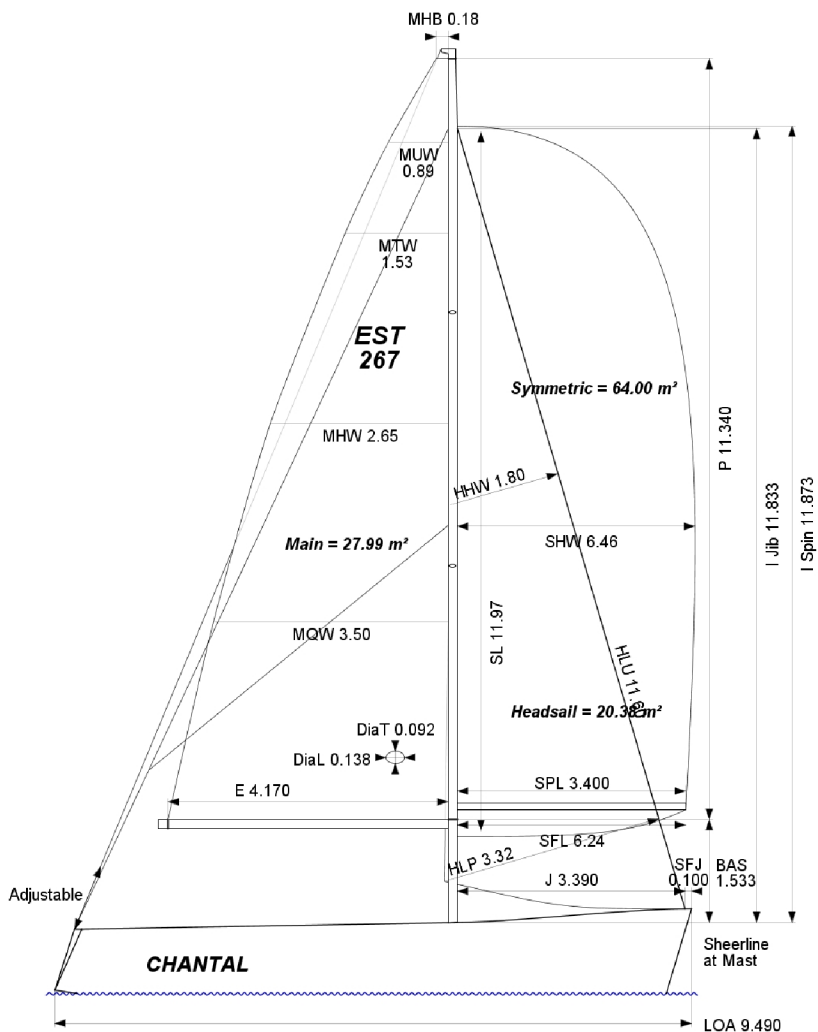




BOAT		GPH	HULL	
Name	CHANTAL	643.5	Data File	EST 267
Sail Nr	EST267		LOA	9.490m
CLASS			Offset File	FIN9703B.OFF
Class	MANNERBERG 31		MB	3.102m
Designer	Rajakallio		Displacement	3,114kg
Builder	Rajakallio		Dynamic All.	0.177%
Series	01/2000		Plan Review	Construction
Age Date	01/2000		Fiber Rigging	No
Age Allowance	0.487%		Crew Arm Ex	Aramid Core
COMMENTS				Carbon Rudder
PROPELLER				Light Stanchions
Installation	Strut	PRD 0.358	IMSL	8.941m
Type	Folding 2 blades	PBW 0.095	VCGD	-0.250m
		PIPA 0.0032	Sink	13.76kg/mm
CENTERBOARD			RL	8.223m
			VCGM	-0.234m
			WS	18.24m²
			LSM0	8.763m
			Displacement/Length ratio	4.6276
			Water Ballast	0
			Trim Tab	No
			BLR Index	0.0000
			N/A	

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	624.7			695.0		
Time on Time	0.9605			0.9712		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	735.2	570.8	507.4	947.4	696.8	607.5
Time on Time	0.9181	1.1825	1.3304	0.7125	0.9687	1.1111



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



Certificate
 Number 053/20
 Issued On 07/06/2020
 ORC Ref 03880000K3I
 VPP Ver. 2020 1.02
 Valid until 31/12/2020

Crew Weight
 Default 570kg
 Maximum 500kg
 Minimum* 375kg
 *when applied by the NoR and SI
 Non Manual Pwr No

Special Scoring
 ToD ToT
 Non Spin GPH 679.0 0.8837
 Non Spin OSN 657.4 0.9127

Sails Limitations
 Headsails 5 Spinnakers 4

Spinnaker configuration
 Symmetric: Yes 64.00
 Asymmetric: No
 Flying H/S: No
 Spin. Pole: Yes

Class Division Length
 CDL = 8.575

Stability (Estimated)
 Limit Positive Stab.: 130.5°
 Stability Index: 127.5

BOAT Name CHANTAL Sail Nr EST267 File EST 267 Data in meters/kilograms		INCLINING TEST AND FREEBOARDS Inclining Test Enter VCG directly Flotation date 07/06/2020 SG 1.0251 VCGDe -0.250 FFM 1.253 FF 1.253 SFFP 0.300 FAM 0.893 FA 0.893 SAFF 9.091 LCF from stem on CL / on sheer 5.531 / 5.741 Maximum beam station from stem 6.446 RM Measured 70.7kg·m RM Default 61.8kg·m Limit of positive stability / Stab.Index 130.5° / 127.5 Freeboard at mast at 3.490 1.063														
RIG Forestay Tension Aft Spreaders 2 Inner Stay None Fitted Runners/Checkstays 2 Carbon Mast No Jib Furler No Fiber Rigging No Main Furler No Non-Circular Rigging No Articulated Bowsprit No P 11.340 E 4.170 MDT1 0.092 MW 0.138 IG 11.833 J 3.390 MDL1 0.138 GO 0.168 ISP 11.873 SFJ 0.100 MDT2 0.079 BD 0.130 BAS 1.533 SPL 3.400 MDL2 0.117 MWT 84.50 FSD 0.035 TPS TL 0.990 MCG 4.061																
MIZZEN RIG AND SAILS N/A		PROPELLER Installation Strut PRD 0.358 Type Folding 2 blades PBW 0.095 Twin Screw No PIPA 0.0032 ST1 0.043 ST3 0.180 ST5 0.250 ST2 0.180 ST4 0.115 EDL 2.430														
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	0.18	0.89	1.53	2.65	3.50	27.99										
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.10	0.55	1.00	1.80	2.56	3.32	11.60	98%	20.38	Y	No					
2	0.10	0.52	0.94	1.74	2.53	3.29	11.72	97%	20.14	Y	No					
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	11.97	11.97	11.97	6.46	6.24	64.00										
2	11.30	11.30	11.30	6.58	6.60	62.00										
2	11.74	11.74	11.74	6.08	6.50	60.31										
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				



ORC
Offshore Racing Congress
World leader in rating technology

2020
Measurements
Datasheet

Certificate
 Number **053/20**
 ORC Ref **03880000K31**
 Issued On **07/06/2020**
 VPP Ver. **2020 1.02**
 Valid until **31/12/2020**



EJL
ESTONIAN
YACHTING
UNION

2020

ORC Club Certificate Appendix

BOAT			
Name	CHANTAL	Certificate Number	053/20
Sail Nr	EST267	Issued On	07/06/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1068.2	887.5	784.3	736.4	721.2	715.8	704.5
52°	705.0	597.7	547.5	527.0	518.4	514.6	510.3
60°	668.9	573.8	534.5	515.4	504.2	499.1	496.5
75°	644.8	557.3	524.4	504.1	487.1	473.6	462.4
90°	652.5	551.4	514.5	498.2	481.5	461.6	431.5
110°	648.3	544.5	506.7	477.7	451.4	436.1	410.4
120°	669.3	555.2	512.3	482.2	451.2	422.5	386.2
135°	742.7	602.6	534.3	502.4	472.8	441.9	380.1
150°	885.9	702.0	592.1	532.6	503.1	475.8	419.3
Run VMG	1022.9	810.6	683.0	601.8	546.7	513.4	461.1
Selected Courses							
Windward / Leeward	1045.6	849.1	733.6	669.1	633.9	614.6	582.8
Circular Random	884.0	714.8	624.5	572.1	539.5	517.2	486.0
Coastal / Long Distance	1043.3	798.4	664.8	590.5	551.5	519.4	465.5
Non Spinnaker	948.3	760.0	657.9	598.0	560.7	536.0	503.3

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	42.0°	40.5°	39.4°	37.9°	37.5°	37.3°	37.5°
Beat VMG	3.37	4.06	4.59	4.89	4.99	5.03	5.11
52°	5.11	6.02	6.58	6.83	6.94	7.00	7.06
60°	5.38	6.27	6.74	6.98	7.14	7.21	7.25
75°	5.58	6.46	6.87	7.14	7.39	7.60	7.79
90°	5.52	6.53	7.00	7.23	7.48	7.80	8.34
110°	5.55	6.61	7.10	7.54	7.98	8.25	8.77
120°	5.38	6.48	7.03	7.47	7.98	8.52	9.32
135°	4.85	5.97	6.74	7.16	7.61	8.15	9.47
150°	4.06	5.13	6.08	6.76	7.16	7.57	8.59
Run VMG	3.52	4.44	5.27	5.98	6.59	7.01	7.81
Gybe Angles	145.0°	149.5°	151.0°	159.0°	180.0°	180.0°	180.0°