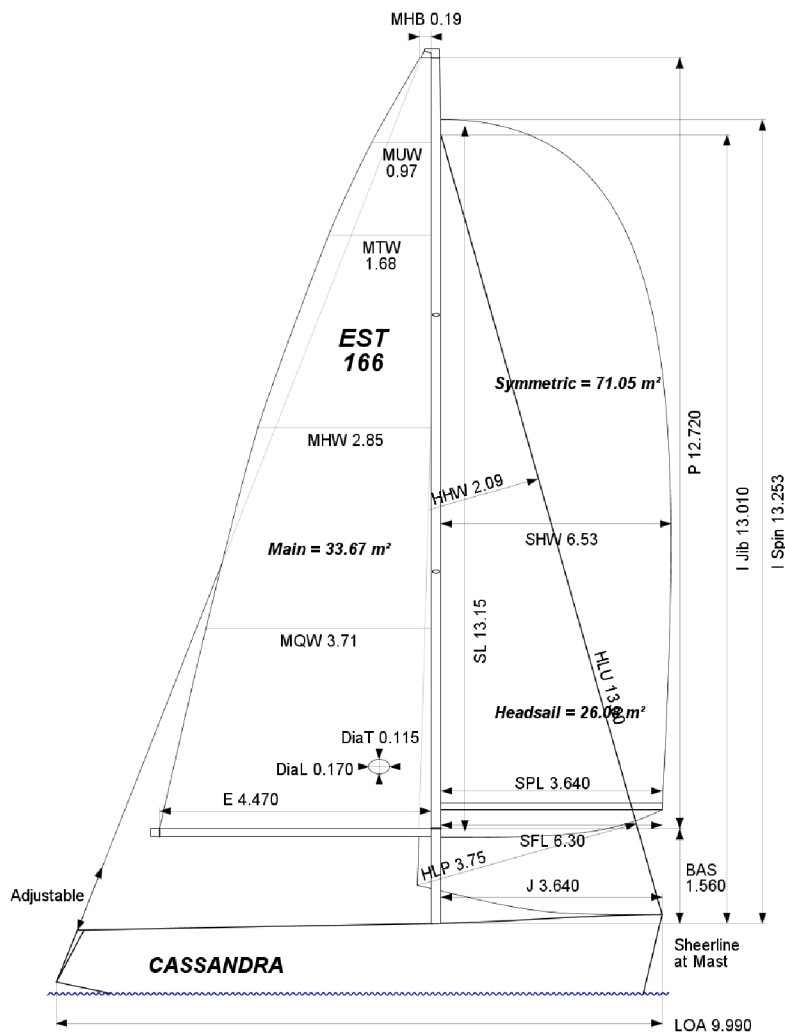




BOAT		GPH		HULL			
Name	Cassandra	648.5		Data File	EST166	LOA	9.990m
Sail Nr	EST 166			Offset File	F235.OFF	MB	3.372m
				Displacement	4,674kg	Draft	2.003m
CLASS				IMS Division	Cruiser/Racer	Dynamic All.	0.227%
	Class	First 34.7		Plan Review		Construction	Solid
	Designer	Benetau		Fiber Rigging	No	Aramid Core	No
	Builder	Farr		Crew Arm Ex		Carbon Rudder	No
	Series	10/2005				Light Stanchions	No
	Age Date	01/2018					
	Age Allowance	0.487%					
COMMENTS				IMSL	9.127m	VCGD	-0.075m Sink
				RL	7.985m	VCGM	-0.063m WS
				LSM0	8.980m	Displacement/Length ratio	
							6.4545
				Water Ballast		Trim Tab	No
				BLR Index	0.0000		
PROPELLER				CENTERBOARD			
Installation	Strut	PRD	0.410				
Type	Folding 2 blades	PIPA	0.0030	N/A			

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	629.7			702.1		
Time on Time	0.9528			0.9614		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	745.8	573.5	511.3	964.1	705.6	611.7
Time on Time	0.9051	1.1769	1.3201	0.7001	0.9567	1.1035



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



Certificate
 Number **117/20**
 Issued On **18/07/2020**
 ORC Ref **03880000MP7**
 VPP Ver. **2020 1.02**
 Valid until **31/12/2020**

Crew Weight
 Default **590kg**
 Maximum **650kg**
 Minimum* **488kg**
 *when applied by the NoR and SI
 Non Manual Pwr **No**

Special Scoring
 ToD ToT
 Non Spin GPH **680.5 0.8817**
 Non Spin OSN **658.8 0.9108**

Sails Limitations
 Headsails **5** Spinnakers **4**

Spinnaker configuration
 Symmetric: **Yes 71.05**
 Asymmetric: **No**
 Flying H/S: **No**
 Spin. Pole: **Yes**

Class Division Length
 CDL = **8.552**

Stability (Measured)
 Limit Positive Stab.: **126.0°**
 Stability Index: **125.8**

BOAT

Name **Cassandra**
File **EST166**

Sail Nr **EST 166**
Data in **meters/kilograms**

RIG

Forestay Tension **Aft**
Inner Stay **None Fitted**
Carbon Mast **No**
Fiber Rigging **No**
Non-Circular Rigging **No**
Articulated Bowsprit **No**

Spreaders **2**
Runners/Checkstays **0**
Jib Furler **No**
Main Furler **No**

P **12.720** E **4.470** MDT1 **0.115** MW **0.170**
IG **13.010** J **3.640** MDL1 **0.170** GO **0.190**
ISP **13.253** SFJ **0.115** MDT2 **0.115** BD **0.130**
BAS **1.560** SPL **3.640** MDL2 **0.138** MWT **126.50**
FSD **0.033** TPS **1.000** TL **1.000** MCG **4.667**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **05/05/2019**

SG **1.0048**

FFM **1.291** FF **1.297** SFFP **0.172**

FAM **1.030** FA **1.038** SAFFP **9.530**

W1 **60.2** PD1 **512.5** WD **10.760**

W2 **60.2** PD2 **518.7** GSA **1.0**

W3 **60.2** PD3 **493.8** RSA **1.0**

W4 **60.2** PD4 **500.8** PLM **9000.0**

LCF from stem on CL / on sheer **5.398 / 5.631**

Maximum beam station from stem **6.642**

RM Measured **100.8kg·m**

RM Default **99.5kg·m**

Limit of positive stability / Stab.Index **126.0° / 125.8**

Freeboard at mast at 3.640 **1.161**

MIZZEN RIG AND SAILS

N/A

COMMENTS

PROPELLER

Installation **Strut** PRD **0.410**

Type **Folding 2 blades** PBW

Twin Screw **No** PIPA **0.0030**

ST1 **0.035** ST3 **0.182** ST5 **0.280**

ST2 **0.182** ST4 **0.100** EDL **1.800**

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

Certificate

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EJL

ESTONIAN YACHTING UNION

SAILS INVENTORY

MAINSAIL (1)

Id MHB MUW MTW MHW MQW Area Measurer Meas.Date Manufacture Material Comment

52 0.19 0.97 1.68 2.85 3.71 33.67 SISIL 15/10/2018 NS Unknown

HEADSAILS (2)

Id HHB HUW HTW HHW HQW HLP HLU OvrIp Area Btn Flying Measurer Meas.Date Manufacture Material Comment

12 0.12 0.59 1.11 2.09 2.96 3.75 13.00 103% 26.08 No EST 1 16/01/2018 NS Unknown must

11 0.11 0.59 1.09 2.02 2.90 3.71 12.90 102% 25.37 N No EST 5 08/07/2015 NS Unknown hall

SYMMETRIC SPINNAKERS (3)

Id SLU SLE SL SHW SFL Area Measurer Meas.Date Manufacture Material Comment

43 13.15 13.15 13.15 6.53 6.30 71.06 EST 2 01/05/2010 NS Nylon sinine

44 13.08 13.08 13.08 6.55 6.39 71.05 Unknown Nylon

42 13.14 13.14 13.14 6.48 6.37 70.72 EST 2 01/05/2010 NS hall

ASYMMETRIC SPINNAKERS (0)

Id SLU SLE SL SHW SFL Area Kind Measurer Meas.Date Manufacture Material Comment

MEASUREMENT INVENTORY

Measurer **Peeter Ramst EST 5**

Date **05/05/2019**

Comment **Roomassaare**

Internal Ballast total = 0.0

Id Item Weight Distance VCG Description

Id Item Maker Model

1 Engine YANMAR 3YM20ST

Id Item Weight Description

MEASUREMENT INVENTORY

Id Item Tank Use Tank Type Capcty Dist. VCG Condn Description

1 Tank Water PVC 60.0 4.06 0-0

2 Tank Fuel PVC 60.0 7.51 20-0

3 Tank Septic PVC 60.0 2.75 0-0

Id Item Weight Distance VCG Description

3 Battery 3.91 70 Ah

2 Battery 3.70 70 Ah

1 Battery 3.25 70 Ah

1 Misc 7.22 Boiler

2 Misc 10.0 8.00 Webasto

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2020

ORC Club Certificate Appendix

BOAT			
Name	Cassandra	Certificate Number	117/20
Sail Nr	EST 166	Issued On	18/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1103.8	916.9	806.4	747.2	728.0	721.6	715.3
52°	719.0	607.5	548.4	523.0	512.5	508.7	506.1
60°	678.8	577.3	531.9	510.6	499.0	494.0	491.7
75°	650.5	556.6	519.8	499.9	484.7	472.9	462.7
90°	657.9	551.9	509.1	488.8	479.4	463.0	437.0
110°	656.3	544.9	503.6	478.2	454.5	436.1	416.4
120°	677.6	558.3	509.5	483.1	458.4	434.6	397.2
135°	750.3	611.2	534.9	501.3	477.1	452.5	406.6
150°	886.1	703.7	596.2	532.3	501.5	478.8	433.9
Run VMG	1023.2	812.5	687.1	604.4	546.2	510.5	465.5
Selected Courses							
Windward / Leeward	1063.5	864.7	746.8	675.8	637.1	616.0	590.4
Circular Random	894.7	721.8	629.0	575.3	542.4	521.2	494.2
Coastal / Long Distance	1059.5	811.3	673.2	592.6	553.0	522.4	471.1
Non Spinnaker	952.3	762.4	659.2	598.6	561.3	537.3	507.4

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	42.9°	41.4°	41.3°	39.8°	39.0°	39.4°	39.4°
Beat VMG	3.26	3.93	4.46	4.82	4.95	4.99	5.03
52°	5.01	5.93	6.56	6.88	7.02	7.08	7.11
60°	5.30	6.24	6.77	7.05	7.21	7.29	7.32
75°	5.53	6.47	6.93	7.20	7.43	7.61	7.78
90°	5.47	6.52	7.07	7.36	7.51	7.78	8.24
110°	5.48	6.61	7.15	7.53	7.92	8.26	8.65
120°	5.31	6.45	7.07	7.45	7.85	8.28	9.06
135°	4.80	5.89	6.73	7.18	7.55	7.96	8.85
150°	4.06	5.12	6.04	6.76	7.18	7.52	8.30
Run VMG	3.52	4.43	5.24	5.96	6.59	7.05	7.73
Gybe Angles	145.5°	150.0°	152.0°	158.0°	180.0°	180.0°	180.0°