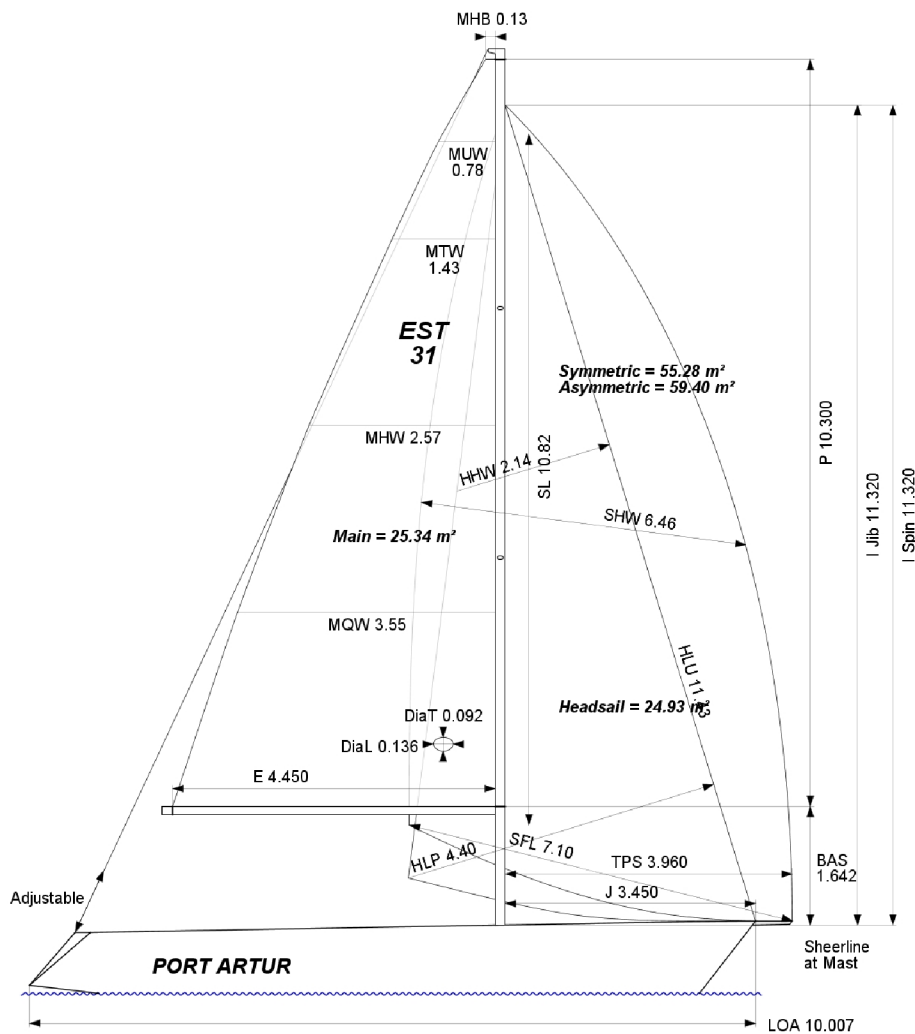




BOAT		GPH	HULL	
Name	PORT ARTUR	651.3	Data File	EST31
Sail Nr	EST-31		LOA	10.007m
CLASS			Offset File	X99.OD.OFF
Class	X-99 mod		Displacement	3,028kg
Designer	NIELS JEPPESEN		Dynamic All.	0.233%
Builder	X-YACHTS		Plan Review	Construction
Series	04/1985		Fiber Rigging	No
Age Date	01/1986		Crew Arm Ex	Aramid Core
Age Allowance	0.487%			Carbon Rudder
COMMENTS				Light Stanchions
Owner declaration 3028kg Internal ballast 108kg (dist. 4.5m)			IMSL	8.697m
PROPELLER			RL	8.103m
Type	No Propeller		WS	18.48m²
CENTERBOARD			LSM0	8.450m
			Displacement/Length ratio	
			Water Ballast	Trim Tab No
			BLR Index	0.0000
			N/A	

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	631.6			705.2		
Time on Time	0.9500			0.9572		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	752.8	575.5	506.8	975.7	709.1	612.0
Time on Time	0.8966	1.1729	1.3319	0.6918	0.9519	1.1029



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



Certificate
 Number 034/20
 Issued On 05/06/2020
 ORC Ref 03880000JWS
 VPP Ver. 2020 1.02
 Valid until 31/12/2020

Crew Weight
 Default 541kg
 Maximum 555kg
 Minimum* 416kg
 *when applied by the NoR and SI
 Non Manual Pwr No

Special Scoring
 ToD ToT
 Non Spin GPH 683.1 0.8783
 Non Spin OSN 660.9 0.9078

Sails Limitations
 Headsails 5 Spinnakers 4
Asymmetric on centerline
Spinnaker configuration
 Symmetric: Yes 55.28
 Asymmetric: Yes 59.40
 Flying H/S: No
 Spin. Pole: Yes

Class Division Length
 CDL = 8.394

Stability (Estimated)
 Limit Positive Stab.: 116.3°
 Stability Index: 114.3

BOAT			
Name	PORT ARTUR	Sail Nr	EST-31
File	EST31	Data in	meters/kilograms

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	10.300	E	4.450	MDT1	0.092	MW	0.136
IG	11.320	J	3.450	MDL1	0.136	GO	0.136
ISP	11.320	SFJ	0.000	MDT2	0.092	BD	0.110
BAS	1.642	SPL	3.450	MDL2	0.136	MWT	77.60
FSD	0.000	TPS	3.960	TL	0.000	MCG	3.950

INCLINING TEST AND FREEBOARDS				
Inclining Test Enter VCG directly				
Flotation date 05/06/2020		SG 1.0270		
VCGDe -0.100				
FFM 0.994	FF 0.994	SFFP	0.303	
FAM 0.799	FA 0.799	SAFP	9.175	
LCF from stem on CL / on sheer			5.450 / 5.621	
Maximum beam station from stem			6.027	
RM Measured			63.9kg·m	
RM Default			61.9kg·m	
Limit of positive stability / Stab.Index			116.3° / 114.3	
Freeboard at mast at 3.450			0.943	

MIZZEN RIG AND SAILS	
	N/A

PROPELLER

Type **No Propeller**

COMMENTS
Owner declaration 3028kg Internal ballast 108kg (dist. 4.5m)

MOVABLE BALLAST
N/A

CENTERBOARD

N/A



Certificate
Number **034/20**
ORC Ref **03880000JWS**
Issued On **05/06/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
4	0.13	0.78	1.43	2.57	3.55	25.34		13/05/2019		Unknown						
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrtp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
5	0.08	0.55	1.08	2.14	3.27	4.40	11.43	128%	24.93		No				Unknown	
4	0.07	0.54	1.03	2.11	3.12	4.47	11.47	130%	24.57		No		15/05/2018		Unknown	
6	0.08	0.50	1.00	2.10	3.27	4.49	11.22	130%	24.32		No				Unknown	
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
3	10.70	10.70	10.70	6.20	6.20	55.29				Unknown						
2	11.07	11.07	11.07	5.58	6.07	52.38		15/05/2018		Unknown						
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
2	12.00	9.64	10.82	6.46	7.10	59.41	asym				Unknown					
1	11.50	10.10	10.80	5.29	6.30	49.43	asy84		09/08/2019		Unknown					

2020

ORC Club Certificate Appendix

BOAT			
Name	PORT ARTUR	Certificate Number	034/20
Sail Nr	EST-31	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	1109.9	912.8	799.6	741.8	721.9	713.4	711.8
52°	721.3	604.1	548.9	525.9	515.9	511.2	508.9
60°	679.3	575.6	534.1	513.5	501.0	494.8	490.6
75°	650.3	556.7	522.3	501.0	482.7	468.3	456.5
90°	660.0	555.4	513.6	489.1	473.8	456.0	426.0
110°	664.6	550.1	508.2	477.5	448.2	424.0	393.6
120°	688.0	564.9	515.6	484.3	452.8	422.8	369.7
135°	769.5	619.5	541.6	506.4	476.7	446.6	387.2
150°	910.3	718.2	607.8	542.2	509.0	482.0	427.7
Run VMG	1051.1	829.3	701.8	616.6	557.2	519.4	466.9
Selected Courses							
Windward / Leeward	1080.5	871.1	750.7	679.2	639.5	616.4	589.3
Circular Random	903.3	726.8	631.6	575.8	540.9	517.4	486.3
Coastal / Long Distance	1077.5	817.6	677.1	594.9	552.6	518.8	460.9
Non Spinnaker	960.1	766.8	661.5	599.3	560.6	535.0	502.1

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	43.1°	41.8°	40.9°	38.8°	38.3°	37.9°	38.1°
Beat VMG	3.24	3.94	4.50	4.85	4.99	5.05	5.06
52°	4.99	5.96	6.56	6.85	6.98	7.04	7.07
60°	5.30	6.25	6.74	7.01	7.19	7.28	7.34
75°	5.54	6.47	6.89	7.19	7.46	7.69	7.89
90°	5.45	6.48	7.01	7.36	7.60	7.90	8.45
110°	5.42	6.54	7.08	7.54	8.03	8.49	9.15
120°	5.23	6.37	6.98	7.43	7.95	8.51	9.74
135°	4.68	5.81	6.65	7.11	7.55	8.06	9.30
150°	3.95	5.01	5.92	6.64	7.07	7.47	8.42
Run VMG	3.43	4.34	5.13	5.84	6.46	6.93	7.71
Gybe Angles	145.0°	147.5°	147.5°	157.5°	180.0°	180.0°	180.0°