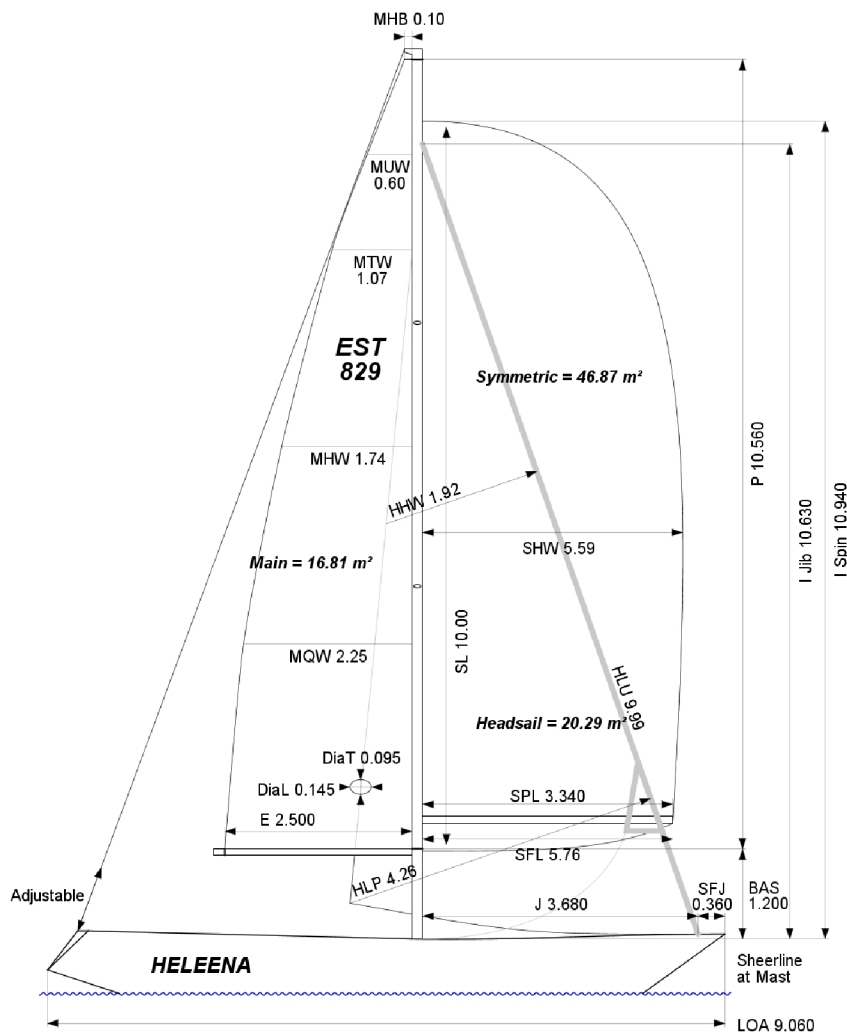




BOAT		GPH	HULL	
Name	Heleena	730.3	Data File	EST829
Sail Nr	EST 829		Offset File	NETTA H-30.off
CLASS			Displacement	3,000kg
Class	Netta H-30		LOA	9.060m
Designer	Hans Groop		MB	2.520m
Builder			Draft	1.486m
Series	01/1975		IMS Division	Cruiser/Racer
Age Date	01/1982		Plan Review	Dynamic All. 0.387%
Age Allowance	0.487%		Fiber Rigging	No
COMMENTS			Crew Arm Ex	No
PROPELLER			Light Stanchions	No
Installation	Shaft exposed	PRD	IMSL	7.272m
Type	Folding 2 blades	PIPA	VCGD	0.033m
			Sink	10.92kg/mm
			RL	6.069m
			VCGM	-0.005m
			WS	15.78m²
			LSM0	7.057m
			Displacement/Length ratio	8.5361
			Water Ballast	Trim Tab No
			BLR Index	0.0000
			CENTERBOARD	
			N/A	

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	709.1			788.5		
Time on Time	0.8462			0.8560		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	837.4	646.6	579.1	1077.1	793.7	688.3
Time on Time	0.8061	1.0439	1.1656	0.6267	0.8504	0.9807



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



Certificate
Number **125/20**
Issued On **23/07/2020**
ORC Ref **03880000N1C**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default **419kg**
Maximum **360kg**
Minimum* **270kg**
*when applied by the NoR and SI
Non Manual Pwr

Special Scoring
ToD ToT
Non Spin GPH **770.0 0.7792**
Non Spin OSN **743.5 0.8070**

Sails Limitations
Headsails **1** Spinnakers **4**

Spinnaker configuration
Symmetric: **Yes 48.42**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length
CDL = **6.671**

Stability (Estimated)
Limit Positive Stab.: **113.4°**
Stability Index: **116.6**

BOAT						
Name Heleena		Sail Nr		EST 829		
File EST829		Data in		meters/kilograms		
RIG						
Forestay Tension	Aft				Spreaders	2
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	10.560	E	2.500	MDT1	0.095	MW
IG	10.630	J	3.680	MDL1	0.145	GO
ISP	10.940	SFJ	0.360	MDT2		BD
BAS	1.200	SPL	3.340	MDL2		MWT
FSD		TPS		TL		MCG

INCLINING TEST AND FREEBOARDS			
Inclining Test Club Estimated VCG			
Flotation date	22/07/2020		SG 1.0244
FFM	0.805	FF 0.805	SFFP 0.905
FAM	0.839	FA 0.839	SAFP 8.518
LCF from stem on CL / on sheer			4.905 / 5.064
Maximum beam station from stem			5.114
RM Measured			41.7kg·m
RM Default			40.5kg·m
Limit of positive stability / Stab.Index			113.4° / 116.6
Freeboard at mast at 4.040			0.735

MIZZEN RIG AND SAILS	
	N/A

PROPELLER			
Installation Type	Shaft exposed Folding 2 blades		PRD
Twin Screw	No		PBW PIPA 0.0000
PSA	PHL	ST3	ESL
PSD	ST1	ST4	
PHD	ST2	ST5	

COMMENTS	

MOVABLE BALLAST	
	N/A

CENTERBOARD

N/A



ORC
Offshore Racing Congress
World leader in rating technology

2020
Measurements
Datasheet

Certificate
Number **125/20**
ORC Ref **03880000N1C**
Issued On **23/07/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**



ESTONIAN
YACHTING
UNION

SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.10	0.60	1.07	1.74	2.25	16.82	EST 5	26/06/2020		Dacron						
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.05	0.48	0.93	1.92	3.08	4.26	9.99	116%	20.29		No	EST 5	26/06/2020		Dacron	
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	10.00	10.00	10.00	5.59	5.76	46.87	EST 5	26/06/2020		Nylon						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				

2020

ORC Club Certificate Appendix

BOAT			
Name	Heleena	Certificate Number	125/20
Sail Nr	EST 829	Issued On	23/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1258.1	1054.7	934.4	857.1	824.8	814.7	821.4
52°	822.9	699.2	626.6	593.4	578.6	573.0	571.6
60°	780.0	662.6	604.9	578.6	564.4	556.9	553.7
75°	752.4	637.7	590.0	566.8	550.6	538.4	525.4
90°	743.4	619.9	571.6	553.2	543.4	531.1	505.9
110°	729.3	607.0	562.6	536.0	513.7	499.7	482.4
120°	750.1	618.9	567.8	540.5	516.1	493.8	465.0
135°	823.3	677.2	594.2	559.0	533.1	507.9	464.0
150°	959.4	769.5	654.9	589.1	558.0	534.0	488.4
Run VMG	1107.8	887.7	753.2	663.6	600.2	565.7	519.0
Selected Courses							
Windward / Leeward	1183.0	971.2	843.8	760.4	712.5	690.2	670.2
Circular Random	1004.6	811.9	708.6	648.7	612.6	590.1	564.5
Coastal / Long Distance	1175.4	910.5	759.8	668.2	621.9	589.4	538.7
Non Spinnaker	1076.8	862.8	746.0	677.1	634.8	608.3	580.0

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	43.5°	41.6°	41.6°	40.5°	39.8°	39.8°	40.5°
Beat VMG	2.86	3.41	3.85	4.20	4.36	4.42	4.38
52°	4.37	5.15	5.75	6.07	6.22	6.28	6.30
60°	4.62	5.43	5.95	6.22	6.38	6.46	6.50
75°	4.79	5.64	6.10	6.35	6.54	6.69	6.85
90°	4.84	5.81	6.30	6.51	6.62	6.78	7.12
110°	4.94	5.93	6.40	6.72	7.01	7.20	7.46
120°	4.80	5.82	6.34	6.66	6.97	7.29	7.74
135°	4.37	5.32	6.06	6.44	6.75	7.09	7.76
150°	3.75	4.68	5.50	6.11	6.45	6.74	7.37
Run VMG	3.25	4.06	4.78	5.43	6.00	6.36	6.94
Gybe Angles	148.0°	152.0°	152.5°	162.0°	180.0°	180.0°	180.0°