



**ORC**

Offshore Racing Congress  
World leader in rating technology

**2020**  
**ORC Club**  
**Certificate**

**Rating Office**

**EYU**  
**Purje 8**  
**11911, Tallinn**  
**Estonia**

**Certificate**

Number **Est893**  
Issued On **5/28/2020**  
ORC Ref **03580000J2C**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**

Default 414kg  
Maximum **360kg**  
Minimum\* **270kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

	ToD	ToT
Non Spin GPH	<b>799.4</b>	<b>0.7506</b>
Non Spin OSN	<b>769.1</b>	<b>0.7801</b>

**Sails Limitations**

Headsails **5** Spinnakers **4**  
**Woven Polyester**

**Spinnaker configuration**

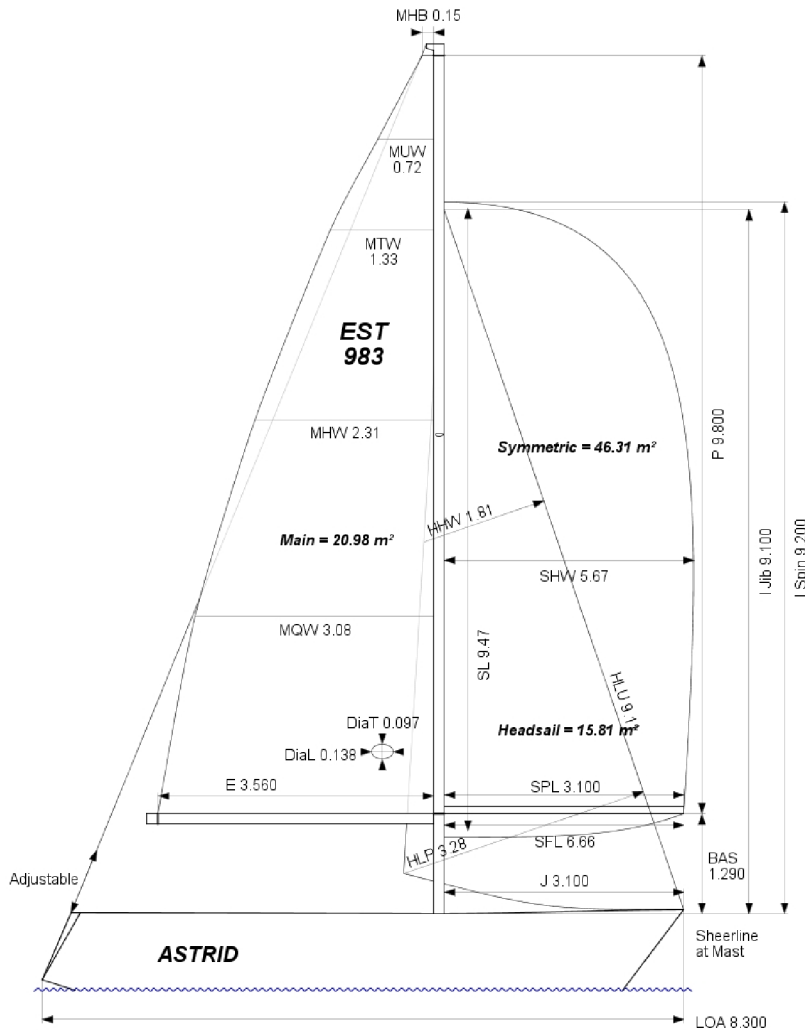
Symmetric: **Yes** **46.31**  
Asymmetric: **No**  
Flying H/S: **No**  
Spin. Pole: **Yes**

**Class Division Length**

**CDL = 6.236**

**Stability (Estimated)**

Limit Positive Stab.: **117.8°**  
Stability Index: **115.9**



BOAT	GPH	HULL
Name <b>Astrid</b> Sail Nr <b>EST 983</b>	<b>763.1</b>	Data File <b>Est0983</b> LOA <b>8.300m</b> Offset File <b>fenix3.off</b> MB <b>2.894m</b> Displacement <b>2,950kg</b> Draft <b>1.574m</b>
<b>CLASS</b> Class <b>FENIX</b> Designer Builder <b>MAXI</b> Series <b>01/1981</b> Age Date <b>01/1981</b> Age Allowance <b>0.487%</b>		IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.438%</b> Plan Review Construction <b>Solid</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>No</b> Light Stanchions <b>No</b>
<b>COMMENTS</b>		IMSL <b>7.098m</b> VCGD <b>0.067m</b> Sink <b>11.43kg/mm</b> RL <b>5.373m</b> VCGM <b>0.054m</b> WS <b>16.84m²</b> LSM0 <b>7.001m</b> Displacement/Length ratio
<b>PROPELLER</b> Installation <b>Strut</b> PRD <b>0.340</b> Type <b>Folding 2 blades</b> PIPA <b>0.0030</b>		Water Ballast Trim Tab <b>No</b> BLR Index <b>0.0000</b>
		<b>CENTERBOARD</b>  <b>N/A</b>

SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time on Distance	<b>739.6</b>			<b>825.7</b>		
Time on Time	<b>0.8113</b>			<b>0.8175</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>888.7</b>	<b>672.0</b>	<b>593.8</b>	<b>1154.6</b>	<b>833.1</b>	<b>711.7</b>
Time on Time	<b>0.7595</b>	<b>1.0044</b>	<b>1.1367</b>	<b>0.5846</b>	<b>0.8102</b>	<b>0.9484</b>

<b>BOAT</b>	
Name <b>Astrid</b>	Sail Nr <b>EST 983</b>
File <b>Est0983</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Club Estimated VCG</b>			
Flotation date <b>18/11/2019</b>		SG	
FFM	FF	1.031	SFFP 0.649
FAM	FA	0.994	SAFP 7.803
LCF from stem on CL / on sheer		4.623 / 4.822	
Maximum beam station from stem		5.374	
RM Measured		50.7kg·m	
RM Default		49.2kg·m	
Limit of positive stability / Stab.Index		117.8° / 115.9	
Freeboard at mast at 3.100		0.987	



**2020**  
Measurements  
Datasheet

<b>RIG</b>				
Forestay Tension	<b>Aft</b>	Spreaders	1	
Inner Stay	<b>None Fitted</b>	Runners/Checkstays	0	
Carbon Mast	<b>No</b>	Jib Furler	<b>No</b>	
Fiber Rigging	<b>No</b>	Main Furler	<b>No</b>	
Non-Circular Rigging	<b>No</b>			
Articulated Bowsprit	<b>No</b>			
P	9.800	E	3.560	MDT1 0.097 MW 0.000
IG	9.100	J	3.100	MDL1 0.138 GO 0.000
ISP	9.200	SFJ		MDT2 0.000 BD
BAS	1.290	SPL	3.100	MDL2 0.000 MWT
FSD		TPS		TL 0.000 MCG

<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>			
Installation	<b>Strut</b>	PRD	0.340
Type	<b>Folding 2 blades</b>	PBW	
Twin Screw	<b>No</b>	PIPA	0.0030
ST1	0.048	ST3	0.170
ST2	0.170	ST4	0.098
		ST5	0.250
		EDL	1.600

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<b>COMMENTS</b>	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS INVENTORY</b>																
<b>MAINSAIL (1)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.15	0.72	1.33	2.31	3.08	20.99	EST7	25/05/2020	RevalSails	Dacron						
<b>HEADSAILS (2)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.05	0.50	0.97	1.81	2.54	3.28	9.11	106%	15.81		No					
2	0.05	0.40	0.78	1.65	2.60	3.61	8.97	116%	15.45		No					
<b>SYMMETRIC SPINNAKERS (4)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
4	9.47	9.47	9.47	5.67	6.66	46.31	EST7	25/05/2020	RevalSails	Dacron						
1	9.47	9.47	9.47	5.72	5.64	45.02										
3	9.23	9.23	9.23	4.72	6.30	38.74					Unknown					
2	9.28	9.28	9.28	4.70	4.80	36.51										
<b>ASYMMETRIC SPINNAKERS (0)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				



# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>			
Name	Astrid	Certificate Number	Est893
Sail Nr	EST 983	Issued On	5/28/2020

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1364.6	1131.6	1003.3	911.0	860.3	848.0	860.8
52°	880.9	742.7	661.4	615.6	594.2	586.1	585.7
60°	829.1	701.1	631.2	597.1	578.5	568.5	565.3
75°	794.1	670.0	609.4	582.5	564.0	549.2	533.8
90°	762.0	634.4	581.6	556.7	544.1	536.9	510.8
110°	754.9	626.8	577.1	548.5	522.4	500.7	480.1
120°	781.2	643.0	584.2	554.2	527.1	501.9	464.4
135°	885.1	711.4	611.2	572.7	545.8	519.4	473.9
150°	1027.5	812.1	681.2	604.1	570.7	545.7	498.3
Run VMG	1186.4	935.9	784.6	678.6	612.4	576.7	528.4
<b>Selected Courses</b>							
Windward / Leeward	1275.5	1033.8	893.9	794.8	736.3	712.3	694.6
Circular Random	1062.9	853.5	739.6	672.6	631.8	606.5	579.0
Coastal / Long Distance	1266.6	966.5	800.2	694.1	638.7	603.7	548.3
Non Spinnaker	1126.5	899.1	774.1	699.6	653.6	624.8	593.2

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	44.6°	43.1°	42.4°	42.0°	40.9°	40.5°	41.4°
Beat VMG	2.64	3.18	3.59	3.95	4.18	4.25	4.18
52°	4.09	4.85	5.44	5.85	6.06	6.14	6.15
60°	4.34	5.13	5.70	6.03	6.22	6.33	6.37
75°	4.53	5.37	5.91	6.18	6.38	6.56	6.74
90°	4.72	5.67	6.19	6.47	6.62	6.70	7.05
110°	4.77	5.74	6.24	6.56	6.89	7.19	7.50
120°	4.61	5.60	6.16	6.50	6.83	7.17	7.75
135°	4.07	5.06	5.89	6.29	6.60	6.93	7.60
150°	3.50	4.43	5.29	5.96	6.31	6.60	7.23
Run VMG	3.03	3.85	4.59	5.30	5.88	6.24	6.81
Gybe Angles	149.0°	153.0°	152.0°	166.0°	180.0°	180.0°	180.0°