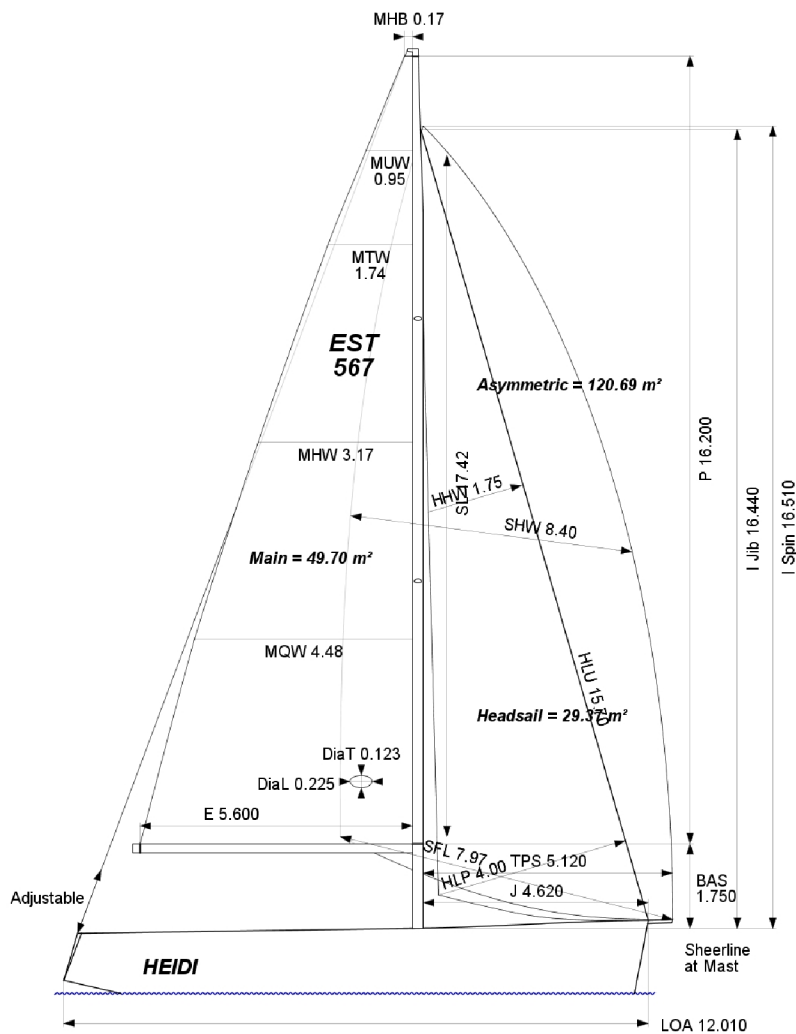




ORC
Offshore Racing Congress
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2020
ORC Club
Certificate

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



ESTONIAN
YACHTING
UNION

Certificate

Number **099/20**
Issued On **03/07/2020**
ORC Ref **03880000LU6**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 778kg
Maximum **500kg**
Minimum* **375kg**
*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **654.5 0.9167**
Non Spin OSN **633.7 0.9469**

Sails Limitations

Headsails **5** Spinnakers **4**
Woven Polyester
Asymmetric on centerline
Spinnaker configuration
Symmetric: **No**
Asymmetric: **Yes 120.69**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 9.697

Stability (Estimated)

Limit Positive Stab.: **115.5°**
Stability Index: **117.2**

BOAT		GPH	HULL			
Name	Heidi	616.0	Data File	EST567	LOA	12.010m
Sail Nr	EST567		Offset File	HS400E.OFF	MB	4.035m
			Displacement	7,944kg	Draft	1.944m
CLASS			IMS Division	Cruiser/Racer	Dynamic All.	0.202%
Class	Hanse 400		Plan Review		Construction	Cored
Designer	Judel/Vrolijk		Fiber Rigging	No	Aramid Core	No
Builder	Hanse Yachts		Crew Arm Ex		Carbon Rudder	No
Series	01/2007				Light Stanchions	No
Age Date	01/2007		IMSL	10.969m	VCGD	-0.150m Sink
Age Allowance	0.422%		RL	8.435m	VCGM	0.089m WS
COMMENTS			LSM0	10.894m	Displacement/Length ratio	6.1444
			Water Ballast		Trim Tab	
			BLR Index	0.0000		
PROPELLER			CENTERBOARD			
Installation	Strut	PRD	0.400			
Type	Folding 2 blades	PIPA	0.0038		N/A	

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	598.3			677.5		
Time on Time	1.0029			0.9963		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	715.6	542.6	482.1	934.1	681.8	591.1
Time on Time	0.9432	1.2441	1.4000	0.7226	0.9900	1.1419

BOAT Name Heidi Sail Nr EST567 File EST567 Data in meters/kilograms										INCLINING TEST AND FREEBOARDS Inclining Test Enter VCG directly Flotation date 03/07/2020 SG 1.0242 VCGDe -0.150 FFM 1.497 FF 1.497 SFFP 0.500 FAM 1.239 FA 1.239 SAFF 11.642 LCF from stem on CL / on sheer 6.442 / 6.719 Maximum beam station from stem 7.570 RM Measured 263.2kg·m RM Default 237.1kg·m Limit of positive stability / Stab.Index 115.5° / 117.2 Freeboard at mast at 4.620 1.337									
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 16.200 E 5.600 MDT1 0.123 MW 0.000 IG 16.440 J 4.620 MDL1 0.225 GO 0.000 ISP 16.510 SFJ 0.000 MDT2 0.000 BD BAS 1.750 SPL 4.620 MDL2 0.000 MWT 0.00 FSD -3.000 TPS 5.120 TL -2.000 MCG 0.000										PROPELLER Installation Strut PRD 0.400 Type Folding 2 blades PBW Twin Screw PIPA 0.0038 ST1 0.065 ST3 0.180 ST5 0.270 ST2 0.180 ST4 0.110 EDL 2.670									
MIZZEN RIG AND SAILS N/A										MOVABLE BALLAST N/A									
COMMENTS 										CENTERBOARD N/A									
SAILS INVENTORY																			
MAINSAIL (1)																			
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
1	0.17	0.95	1.74	3.17	4.48	49.71				Unknown									
HEADSAILS (1)																			
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment			
1	0.08	0.45	0.84	1.75	2.80	4.00	15.70	87%	29.37		No					Unknown			
SYMMETRIC SPINNAKERS (0)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment								
ASYMMETRIC SPINNAKERS (1)																			
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment							
1	18.21	16.63	17.42	8.40	7.97	120.70	asym				Unknown								



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2020
Measurements
Datasheet



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UNION

2020

ORC Club Certificate Appendix

BOAT			
Name	Heidi	Certificate Number	099/20
Sail Nr	EST567	Issued On	03/07/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1115.6	910.7	796.8	727.1	698.6	691.1	688.0
52°	714.1	596.7	528.1	490.7	475.6	471.0	469.4
60°	667.7	563.4	504.4	474.9	461.1	455.6	453.3
75°	633.3	537.5	487.3	463.4	447.9	436.5	426.5
90°	612.7	510.0	466.0	449.3	441.2	429.6	403.9
110°	605.8	502.6	459.8	435.9	414.8	400.6	381.6
120°	623.3	515.4	466.3	440.7	417.3	395.1	362.6
135°	695.2	565.3	492.5	458.1	435.0	412.3	370.0
150°	824.7	656.5	558.3	498.9	469.1	449.2	414.6
Run VMG	952.2	758.1	644.7	576.1	540.2	499.1	448.4
Selected Courses							
Windward / Leeward	1033.9	834.4	720.8	651.6	619.4	595.1	568.2
Circular Random	856.4	687.9	597.0	544.2	512.1	491.6	466.6
Coastal / Long Distance	1025.8	779.8	644.0	561.7	521.4	490.1	439.9
Non Spinnaker	930.3	738.9	633.1	570.0	531.0	506.1	477.2

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	45.0°	42.8°	42.0°	41.6°	40.9°	40.9°	41.3°
Beat VMG	3.23	3.95	4.52	4.95	5.15	5.21	5.23
52°	5.04	6.03	6.82	7.34	7.57	7.64	7.67
60°	5.39	6.39	7.14	7.58	7.81	7.90	7.94
75°	5.68	6.70	7.39	7.77	8.04	8.25	8.44
90°	5.88	7.06	7.72	8.01	8.16	8.38	8.91
110°	5.94	7.16	7.83	8.26	8.68	8.99	9.43
120°	5.78	6.99	7.72	8.17	8.63	9.11	9.93
135°	5.18	6.37	7.31	7.86	8.28	8.73	9.73
150°	4.37	5.48	6.45	7.22	7.67	8.01	8.68
Run VMG	3.78	4.75	5.58	6.25	6.66	7.21	8.03
Gybe Angles	144.0°	148.0°	148.0°	149.0°	151.0°	176.0°	178.0°