

BOAT Name KATARINA II Sail Nr EST 949	GPH 601.9	HULL Length Overall 11.110m Maximum Beam 3.530m Displacement 5,473kg Draft 2.036m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.126% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class ONE OFF Designer COSSUTTI MAURIZIO Builder RIDAS YACHT OÜ Series 07/2017 Age 07/2017 Age Allowance 0.033% Offset File EST949-18.off - 5/11/2018 8:28:07 PM Measurement by A.Tetsmann - 20/07/2018		IMSL 10.268m VCGD -0.118m Sink 20.82kg/mm RL 9.049m VCGM -0.058m WS 27.58m² LSMO 10.162m Displacement/Length ratio 5.2154



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2018
ORC International
Certificate

Rating Office
EYU
Regati 1
11911, Tallinn
Estonia

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	584.2			655.6		
Time on Time	1.0271			1.0295		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	695.4	531.4	471.2	900.7	657.6	571.6
Time on Time	0.9707	1.2702	1.4324	0.7494	1.0264	1.1808

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1035.7	848.4	745.3	702.0	686.3	679.9	669.5
52°	674.2	562.0	505.9	484.8	477.9	474.8	468.9
60°	636.1	535.1	490.3	471.4	463.7	459.9	454.8
75°	607.8	516.8	479.5	459.2	444.1	435.5	429.0
90°	614.2	514.4	472.5	451.6	437.9	419.7	398.1
110°	614.4	506.5	464.9	437.6	414.1	395.2	371.9
120°	630.0	516.7	470.1	440.8	412.5	387.7	349.7
135°	695.3	561.3	492.0	460.0	432.5	405.4	351.1
150°	830.1	658.7	552.8	491.1	461.5	436.2	387.2
Run VMG	958.5	760.6	638.3	560.2	510.8	474.9	426.3

Certificate
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VPP Ver. **2018 1.00**
Valid until **12/31/2018**

Crew Weight
Default **704kg**
Maximum **665kg**
Minimum* **499kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	604.9	0.9918
Double H.OSN	589.0	1.0187
Non Spin GPH	636.2	0.9431
Non Spin OSN	616.8	0.9727

Selected Courses							
Windward / Leeward	997.1	804.5	691.8	631.1	598.6	577.4	547.9
Circular Random	833.9	670.9	583.5	532.8	501.4	480.4	452.4
Coastal / Long Distance	993.2	754.8	623.1	550.3	512.7	481.4	429.0
Non Spinnaker	894.6	714.1	615.9	558.3	522.6	499.2	469.1

Sails Limitations

Headsails	5	Spinnakers	3
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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	43.9°	42.1°	41.1°	39.9°	40.1°	39.9°	40.1°
Beat VMG	3.48	4.24	4.83	5.13	5.25	5.29	5.38
52°	5.34	6.41	7.12	7.43	7.53	7.58	7.68
60°	5.66	6.73	7.34	7.64	7.76	7.83	7.92
75°	5.92	6.97	7.51	7.84	8.11	8.27	8.39
90°	5.86	7.00	7.62	7.97	8.22	8.58	9.04
110°	5.86	7.11	7.74	8.23	8.69	9.11	9.68
120°	5.71	6.97	7.66	8.17	8.73	9.29	10.30
135°	5.18	6.41	7.32	7.83	8.32	8.88	10.25
150°	4.34	5.47	6.51	7.33	7.80	8.25	9.30
Run VMG	3.76	4.73	5.64	6.43	7.05	7.58	8.45
Gybe Angles	140.2°	148.3°	149.0°	156.0°	171.4°	180.0°	180.0°

Class Division Length
CDL = **9.659**

Storm Sails Areas

Heavy Weather Jib	29.27
Storm Jib (JL=9.57)	10.84
Storm Trysail	12.44

BOAT	
Name KATARIINA II	Sail Nr EST 949
File Est0949	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 09/06/2018		SG 1.0000	
FFM 1.402	FF 1.410	SFFP 0.000	
FAM 0.636	FA 0.642	SAFP 11.110	
W1 90.5	PD1 517.8	WD 11.600	
W2 90.5	PD2 513.3	GSA 1.0	
W3 90.5	PD3 517.3	RSA 1.0	
W4 90.5	PD4 519.5	PLM 9000.0	
LCF from stem on CL / on sheer		6.188 / 6.409	
Maximum beam station from stem		7.600	
RM Measured		159.9kg·m	
RM Default		162.1kg·m	
Limit of positive stability / Stab.Index		124.0° / 124.6	
Freeboard at mast at 4.645		1.238	



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IMS Measurement Certificate

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler No		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 14.050	E 5.060	MDT1 0.120	MW 0.208
IG 14.640	J 4.410	MDL1 0.208	GO 0.233
ISP 14.750	SFJ 0.235	MDT2 0.108	BD 0.290
BAS 1.715	SPL 4.645	MDL2 0.135	MWT 136.00
FSP 0.068	TPS 4.560	TL 0.900	MCG 4.380

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.406		
Type Folding 2 blades	PBW 0.113		
Twin Screw No	PIPA 0.0036		
ST1 0.050	ST3 0.180	ST5 0.307	
ST2 0.180	ST4 0.112	EDL 1.945	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.385	1.20	2.01	3.29	4.24	43.08	44.07	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.89	14.89	14.89	8.65	8.46	106.86		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)			
	14.70	13.94	14.32	5.48	7.29	69.71	81.52	AS · (SFL + 4·SHW) / 6	

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.12	0.80	1.49	2.61	3.64	4.73	14.38	36.29			20/07/2018	Unknow	SuperLight-18
0.13	0.80	1.48	2.60	3.64	4.71	14.40	36.24			09/06/2018	Unknow	Light-18
0.11	0.78	1.45	2.60	3.62	4.69	14.28	35.71			16/07/2016	Unknow	WC 2016
0.13	0.74	1.38	2.53	3.64	4.73	14.30	35.47			26/07/2015	Unknow	JibTop
0.07	0.64	1.23	2.38	3.50	4.60	14.42	33.95			01/04/2015	Unknow	#1H
0.06	0.44	0.84	1.69	2.56	3.50	13.15	22.62			16/05/2015	Unknow	Spi Staysail

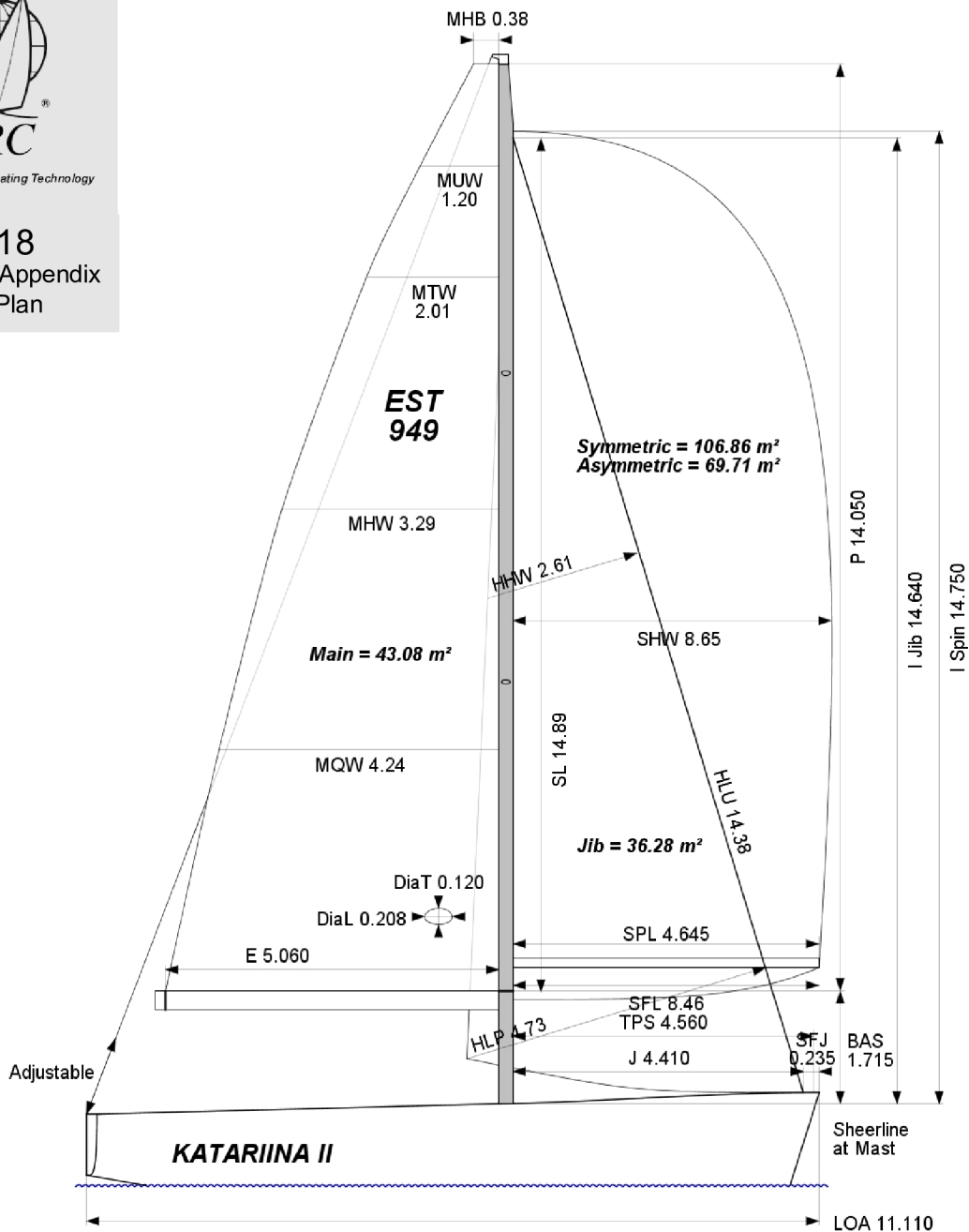
MEASUREMENT INVENTORY				
Measurer EST 1 A.Tetsmann				
Date 09/06/2018				
Comment Tallinn- Pirta				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	Yanmar	3YM30	
Id	Item	Weight Description		

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
1	Tank	Fuel	st.steel	80.0	8.80		5-0 Fuel tank
2	Tank	Water	neopr.	55.0	5.60		0-0 Water tank
Id	Item	Weight	Distance	VCG Description			
1	Battery		7.80	2 x 105 Ah portside			
1	Misc		9.60	Air heater Eberspächer			



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
5	0.385	1.20	2.01	3.29	4.24	43.08	EST 1	09/06/2018	NorthSails	Unknown	

HEADSAILS (6)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
11	0.12	0.80	1.49	2.61	3.64	4.73	14.38	107%	36.29			FIV85/Sir	20/07/2018	NorthSails	Unknow	SuperLight-18
10	0.13	0.80	1.48	2.60	3.64	4.71	14.40	107%	36.24			EST 1	09/06/2018	NorthSails	Unknow	Light-18
7	0.11	0.78	1.45	2.60	3.62	4.69	14.28	106%	35.71				16/07/2016		Unknow	WC 2016
6	0.13	0.74	1.38	2.53	3.64	4.73	14.30	107%	35.47			EST 1	26/07/2015	NorthSails	Unknow	JibTop
4	0.07	0.64	1.23	2.38	3.50	4.60	14.42	104%	33.95			Sisil	01/04/2015	NorthSails	Unknow	#1H
5	0.06	0.44	0.84	1.69	2.56	3.50	13.15	79%	22.62			Sisil	16/05/2015	NorthSails	Unknow	Spi Staysail

SYMMETRIC SPINNAKERS (5)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
8	14.89	14.89	14.89	8.65	8.46	106.86	Hemamali	25/04/2018		Unknown	S 1,5
6	14.82	14.82	14.82	8.66	8.42	106.36	Hemamali	13/04/2018		Unknown	S2
7	14.96	14.96	14.96	8.50	8.54	106.07	Hemamali	17/04/2018		Unknown	S1
4	14.45	14.45	14.45	8.16	8.26	98.50	EST 2	11/07/2015	NorthSails	Unknown	S4
5	14.62	14.62	14.62	7.65	8.20	94.54	EST 1	26/07/2015	NorthSails	Unknown	S5

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
1	14.70	13.94	14.32	5.48	7.29	69.71	asym	Hemamali	26/05/2015		Unknown	