

BOAT Name PREMIUM Sail Nr EST 499	GPH 570.8	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 6,911kg Draft 2.312m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-41 mod Designer JEPPESEN Builder X YACHTS Series 01/2006 Age 07/2016 Age Allowance 0.390% Offset File X41_k2016_mkRUD.off - 7/15/2017 Measurement by Tetsmann/ Tagu - 18/06/2018		IMSL 11.083m VCGD -0.188m Sink 22.99kg/mm RL 10.127m VCGM -0.203m WS 32.40m² LSMO 10.956m Displacement/Length ratio 5.2551



Rating Office EYU Regati 1 11911, Tallinn Estonia
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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	554.7			620.5		
Time on Time	1.0816			1.0878		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	651.9	506.0	451.8	841.2	622.9	543.9
Time on Time	1.0354	1.3341	1.4939	0.8024	1.0837	1.2411

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	952.2	780.6	694.1	663.6	650.3	640.5	629.8
52°	623.6	519.9	477.9	465.1	459.6	456.8	448.7
60°	590.0	499.0	465.5	452.4	446.7	443.5	435.2
75°	565.9	486.1	456.3	439.0	427.3	420.8	415.0
90°	572.6	488.4	456.0	435.7	417.4	402.2	385.8
110°	588.0	484.6	446.7	423.1	408.4	394.6	373.5
120°	602.2	493.2	450.6	422.7	396.6	379.0	353.6
135°	664.3	534.8	470.7	440.6	413.3	386.3	332.1
150°	786.9	626.7	527.2	471.0	442.9	418.0	369.0
Run VMG	908.6	723.6	608.8	537.6	492.8	458.2	410.3

Certificate Number EST499 ORC Ref EST00000312 Issued On 7/14/2018 VPP Ver. 2018 1.00 Valid until 12/31/2018
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Crew Weight Default 784kg Maximum 850kg Minimum* 638kg <i>*when applied by the NoR and SI</i> Non Manual Pwr No

Special Scoring ToD ToT Double H.GPH 575.4 1.0427 Double H.OSN 561.1 1.0693 Non Spin GPH 603.3 0.9945 Non Spin OSN 586.8 1.0226

Selected Courses							
	930.4	752.1	651.4	600.6	571.5	549.3	520.0
Windward / Leeward	930.4	752.1	651.4	600.6	571.5	549.3	520.0
Circular Random	784.7	633.8	553.7	507.7	479.4	460.2	433.8
Coastal / Long Distance	928.2	707.0	588.9	525.2	490.3	461.4	415.3
Non Spinnaker	843.2	675.2	584.5	531.4	498.4	476.4	447.5

Sails Limitations Headsails 6 Spinnakers 4

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	43.0°	41.7°	40.3°	39.0°	39.0°	38.4°	38.6°
Beat VMG	3.78	4.61	5.19	5.43	5.54	5.62	5.72
52°	5.77	6.92	7.53	7.74	7.83	7.88	8.02
60°	6.10	7.21	7.73	7.96	8.06	8.12	8.27
75°	6.36	7.41	7.89	8.20	8.43	8.55	8.68
90°	6.29	7.37	7.89	8.26	8.63	8.95	9.33
110°	6.12	7.43	8.06	8.51	8.81	9.12	9.64
120°	5.98	7.30	7.99	8.52	9.08	9.50	10.18
135°	5.42	6.73	7.65	8.17	8.71	9.32	10.84
150°	4.58	5.74	6.83	7.64	8.13	8.61	9.76
Run VMG	3.96	4.97	5.91	6.70	7.31	7.86	8.77
Gybe Angles	141.9°	147.1°	149.0°	155.6°	168.4°	180.0°	180.0°

Class Division Length CDL = 10.606

Storm Sails Areas Heavy Weather Jib 39.71 Storm Jib (JL=11.15) 14.71 Storm Trysail 15.39

BOAT	
Name PREMIUM	Sail Nr EST 499
File Est0499	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 13/07/2018		SG 1.0260	
FFM 1.461	FF 1.462	SFFP 0.200	
FAM 1.090	FA 1.090	SAFP 11.995	
W1 116.5	PD1 611.3	WD 13.700	
W2 116.5	PD2 611.2	GSA 1.0	
W3 116.5	PD3 610.9	RSA 1.0	
W4 116.5	PD4 611.3	PLM 9000.0	
LCF from stem on CL / on sheer		6.935 / 7.147	
Maximum beam station from stem		8.432	
RM Measured		205.7kg·m	
RM Default		203.8kg·m	
Limit of positive stability / Stab.Index		129.2° / 132.8	
Freeboard at mast at 5.200		1.217	



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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 15.850	E 5.550	MDT1 0.130	MW 0.230
IG 17.035	J 5.200	MDL1 0.245	GO 0.265
ISP 17.265	SFJ	MDT2 0.094	BD 0.270
BAS 1.765	SPL 5.200	MDL2 0.207	MWT 180.30
FSP 0.076	TPS	TL 1.300	MCG 5.790

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.430		
Type Folding 2 blades	PBW 0.125		
Twin Screw No	PIPA 0.0032		
ST1 0.060	ST3	ST5 0.325	
ST2	ST4 0.092	EDL 1.540	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.210	1.33	2.17	3.59	4.62	52.82	53.98	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	139.19		SL · (SFL + 4·SHW) / 6	
	17.11	17.11	17.11	9.82	9.53				
Asymmetric Not Available									

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
0.18	0.88	1.62	2.93	4.18	5.55	17.07	49.24			25/05/2018	Unknow	
0.16	0.90	1.63	3.00	4.35	5.63	16.54	48.86			28/06/2016	Carbon	Jib Top
0.11	0.69	1.32	2.60	3.92	5.37	16.39	43.38			25/05/2018	Unknow	

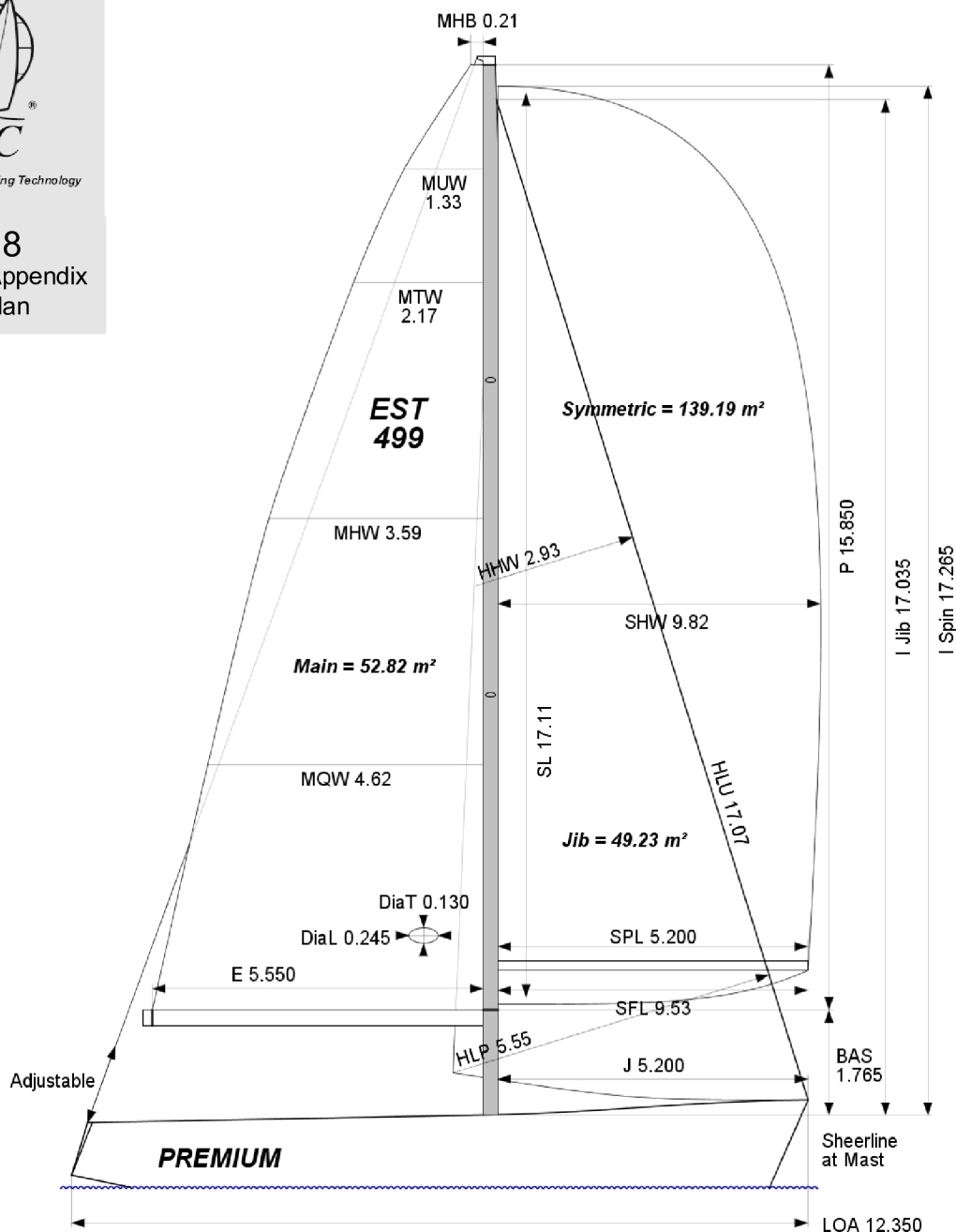
MEASUREMENT INVENTORY			
Measurer Karl-Hannes Tagu EST 7			
Date 14/06/2018			
Comment Pirita (Freeboards updated on Worlds			
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>
1	Engine	Volvo.Penta	40 HP
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>	

MEASUREMENT INVENTORY							
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn Description</i>
1	Tank	Fuel	plastic	90.0	5.75		40.0 Fuel tank
2	Tank	Water	plastic	180.0	5.20		0.0 Water tank
3	Tank	Holding	plastic	30.0	4.40		0.0 Holding tank
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance VCG</i>	<i>Description</i>			
1	Battery	4.90		service battery 180 Ah.			
2	Battery	7.70		engine battery 30 Ah			
Re	Misc			Removed sofa backboards in saloon			
Re	Misc			Removed closet in front cabin			
RE	Misc			Removed decorative wall panels			



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Certificate Appendix
Sail Plan



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
7a	0.210	1.33	2.17	3.59	4.62	52.82	EST 7	18/06/2018	OneSails	Carbon	P15,85;E5,55					
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
L	0.18	0.88	1.62	2.93	4.18	5.55	17.07	107%	49.24			SLO 3	25/05/2018	OneSails	Unknow	
K	0.16	0.90	1.63	3.00	4.35	5.63	16.54	108%	48.86			SLO 3	28/06/2016	OneSails	Carbon	Jib Top
M	0.11	0.69	1.32	2.60	3.92	5.37	16.39	103%	43.38			SLO 3	25/05/2018	OneSails	Unknow	
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
G	17.11	17.11	17.11	9.82	9.53	139.19	EST 7	18/06/2018	OneSails	Unknown	S 2					
F	17.04	17.04	17.04	9.71	10.06	138.88	EST 7	18/06/2018	OneSails	Unknown	S 1					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				