

BOAT Name PREMIUM Sail Nr EST 499	GPH 570.2	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 6,873kg Draft 2.311m 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 - 15/07/2017 Measurement by Tetsmann/ Tagu - 18/06/2018		IMSL 11.071m VCGD -0.210m Sink 22.92kg/mm RL 10.160m VCGM -0.223m WS 32.30m² LSM0 10.950m Displacement/Length ratio 5.2348



World Leader in Rating Technology

2018
ORC International
Certificate

Rating Office

Offshore
Racing
Congress



World Leader In Rating Technology

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	554.3			620.6		
Time on Time	1.0825			1.0877		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	651.4	505.4	451.4	840.6	622.2	543.9
Time on Time	1.0362	1.3356	1.4955	0.8030	1.0849	1.2411

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	951.5	779.9	693.0	662.5	649.0	643.4	628.5
52°	623.1	519.4	477.4	464.5	459.0	456.2	448.0
60°	589.5	498.6	465.1	451.9	446.1	442.8	434.6
75°	565.3	485.7	455.9	438.4	426.5	419.9	413.9
90°	572.1	488.0	455.7	435.2	416.7	401.3	384.6
110°	587.6	484.3	446.3	422.4	407.6	393.7	372.4
120°	601.8	492.8	450.3	422.2	395.9	378.0	352.5
135°	663.9	534.3	470.4	440.3	412.8	385.7	331.1
150°	786.3	626.3	526.8	470.7	442.6	417.5	368.4
Run VMG	908.0	723.2	608.3	537.3	492.5	457.9	409.9

Certificate

Number **EST499**
ORC Ref **EST00000211**
Issued On **19/06/2018**
VPP Ver. **2018 1.00**
Valid until **31/12/2018**

Crew Weight

Default 783kg
Maximum **850kg**
Minimum* **638kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	574.7	1.0440
Double H.OSN	560.4	1.0707
Non Spin GPH	602.8	0.9954
Non Spin OSN	586.4	1.0233

Selected Courses							
Windward / Leeward	929.7	751.5	650.7	599.9	570.7	550.7	519.2
Circular Random	784.1	633.2	553.2	507.2	478.9	459.7	432.6
Coastal / Long Distance	927.6	706.5	588.2	524.6	489.6	461.5	414.4
Non Spinnaker	842.5	674.7	584.0	531.0	498.0	476.0	446.4

Sails Limitations

Headsails	Spinnakers
6	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°	38.9°	38.9°	39.0°	38.6°
Beat VMG	3.78	4.62	5.19	5.43	5.55	5.60	5.73
52°	5.78	6.93	7.54	7.75	7.84	7.89	8.04
60°	6.11	7.22	7.74	7.97	8.07	8.13	8.28
75°	6.37	7.41	7.90	8.21	8.44	8.57	8.70
90°	6.29	7.38	7.90	8.27	8.64	8.97	9.36
110°	6.13	7.43	8.07	8.52	8.83	9.14	9.67
120°	5.98	7.30	7.99	8.53	9.09	9.52	10.21
135°	5.42	6.74	7.65	8.18	8.72	9.33	10.87
150°	4.58	5.75	6.83	7.65	8.13	8.62	9.77
Run VMG	3.96	4.98	5.92	6.70	7.31	7.86	8.78
Gybe Angles	142.0°	147.1°	149.0°	155.6°	168.4°	180.0°	180.0°

Class Division Length

CDL = **10.617**

Storm Sails Areas


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

Owner

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

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 14/06/2018		SG 1.0000	
FFM 1.446	FF 1.458	SFFP 0.200	
FAM 1.089	FA 1.095	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		6.917 / 7.131	
Maximum beam station from stem		8.432	
RM Measured		205.7kg-m	
RM Default		203.1kg-m	
Limit of positive stability / Stab.Index		130.2° / 133.7	
Freeboard at mast at 5.200		1.217	

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	




World Leader in Rating Technology

2018

IMS Measurement Certificate

Certificate

Number **EST499**
 ORC Ref **EST00000211**
 Issued On **19/06/2018**
 VPP Ver. **2018 1.00**
 Valid until **31/12/2018**



World Leader In Rating Technology

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	49.23			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	43.37			25/05/2018	Unknow	

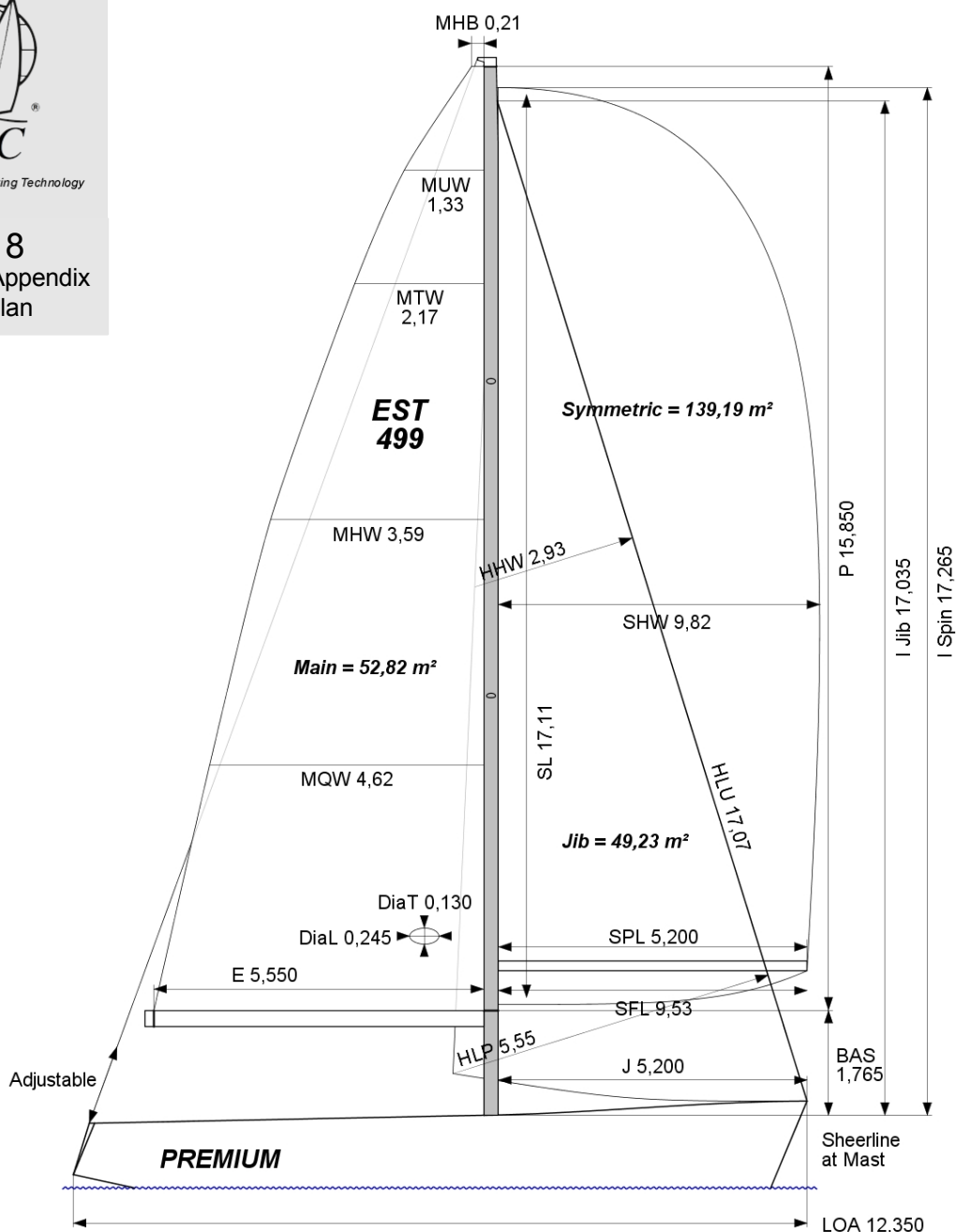
MEASUREMENT INVENTORY				
Measurer Karl-Hannes Tagu EST 7				
Date 14/06/2018				
Comment Tallinn - Pirta				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	Volvo.Penta	40 HP	
<i>Id</i>	<i>Item</i>	<i>Weight Description</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 Condtn Description</i>
1	Tank Fuel		plastic	90.0	5.75	30.0 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</i>	<i>VCG 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		



World Leader in Rating Technology

2018
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%	49.23			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%	43.37			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
----	-----	-----	----	-----	-----	------	------	----------	-----------	-------------	----------	---------