

BOAT Name TECHNONICOL Sail Nr EST-615	GPH 569.9	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 6,841kg Draft 2.309m 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 04/2010 Age Allowance 0.390% Offset File X41_k2016_mkRUD.off - 7/15/2017 Measurement by Tetsmann/Luciani - 10/05/2018		IMSL 11.061m VCGD -0.231m Sink 22.89kg/mm RL 10.163m VCGM -0.243m WS 32.25m² LSMO 10.938m Displacement/Length ratio 5.2276



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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	554.0			620.1		
Time on Time	1.0831			1.0886		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	651.8	505.1	449.9	841.5	622.4	543.1
Time on Time	1.0356	1.3364	1.5004	0.8021	1.0845	1.2429

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	951.8	780.0	692.8	662.4	649.0	639.1	628.6
52°	623.1	519.3	477.2	464.3	458.8	456.0	447.8
60°	589.5	498.4	464.9	451.7	445.8	442.5	434.1
75°	565.3	485.6	455.8	438.1	426.1	419.5	413.5
90°	572.1	487.9	454.1	435.0	416.3	400.8	384.1
110°	588.1	484.4	446.1	421.2	399.4	387.0	364.9
120°	602.4	493.0	450.2	421.8	395.1	373.4	344.5
135°	664.2	534.3	470.5	440.4	412.9	385.7	330.9
150°	787.6	627.7	527.6	471.0	442.7	417.5	368.4
Run VMG	909.4	724.9	609.3	537.5	492.6	457.9	409.7

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

Crew Weight
Default **782kg**
Maximum **880kg**
Minimum* **660kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	574.5	1.0444
Double H.OSN	560.3	1.0708
Non Spin GPH	602.6	0.9957
Non Spin OSN	586.0	1.0239

Selected Courses							
	930.6	752.4	651.0	600.0	570.8	548.5	519.2
Windward / Leeward	930.6	752.4	651.0	600.0	570.8	548.5	519.2
Circular Random	784.3	633.2	552.9	506.6	477.9	458.4	431.5
Coastal / Long Distance	928.5	707.3	588.4	524.5	489.4	459.5	412.2
Non Spinnaker	842.5	674.6	583.8	530.6	497.5	475.4	446.4

Sails Limitations

Headsails	6	Spinnakers	4
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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	43.0°	41.7°	40.3°	39.0°	39.0°	38.4°	38.6°
Beat VMG	3.78	4.62	5.20	5.43	5.55	5.63	5.73
52°	5.78	6.93	7.54	7.75	7.85	7.89	8.04
60°	6.11	7.22	7.74	7.97	8.07	8.14	8.29
75°	6.37	7.41	7.90	8.22	8.45	8.58	8.71
90°	6.29	7.38	7.93	8.28	8.65	8.98	9.37
110°	6.12	7.43	8.07	8.55	9.01	9.30	9.87
120°	5.98	7.30	8.00	8.54	9.11	9.64	10.45
135°	5.42	6.74	7.65	8.17	8.72	9.33	10.88
150°	4.57	5.73	6.82	7.64	8.13	8.62	9.77
Run VMG	3.96	4.97	5.91	6.70	7.31	7.86	8.79
Gybe Angles	141.5°	147.1°	148.9°	155.8°	168.4°	180.0°	180.0°

Class Division Length
CDL = **10.613**

Storm Sails Areas

Heavy Weather Jib	39.52
Storm Jib (JL=11.12)	14.64
Storm Trysail	15.12

BOAT	
Name TECHNONICOL	Sail Nr EST-615
File Est0615	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 05/07/2017		SG 1.0250	
FFM 1.460	FF 1.461	SFFP 0.200	
FAM 1.096	FA 1.096	SAFP 11.995	
W1 111.9	PD1 515.3	WD 12.210	
W2 111.9	PD2 515.5	GSA 1.0	
W3 111.9	PD3 514.1	RSA 1.0	
W4 111.9	PD4 515.4	PLM 9000.0	
LCF from stem on CL / on sheer		6.917 / 7.131	
Maximum beam station from stem		8.432	
RM Measured		208.9kg·m	
RM Default		203.0kg·m	
Limit of positive stability / Stab.Index		131.0° / 134.5	
Freeboard at mast at 5.210		1.218	



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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 15.800	E 5.470	MDT1 0.131	MW 0.240
IG 17.035	J 5.210	MDL1 0.240	GO 0.263
ISP 17.065	SFJ	MDT2 0.115	BD 0.270
BAS 1.865	SPL 5.400	MDL2 0.190	MWT 187.00
FSP 0.076	TPS	TL 0.550	MCG 5.700

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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 0.0036		
ST1 0.060	ST3 0.180	ST5 0.325	
ST2 0.180	ST4 0.100	EDL 1.520	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.380	1.31	2.17	3.59	4.60	52.54	53.70	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	17.09	17.09	17.09	9.79	9.58	138.83			
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)		AS · (SFL + 4·SHW) / 6	
	16.92	15.56	16.24	5.88	7.83	84.85 109.84			

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
0.19	0.97	1.75	3.01	4.22	5.48	16.89	49.53			15/06/2017	Unknow	Jib 1
0.18	0.88	1.61	2.91	4.14	5.47	16.89	48.24			15/06/2017	Unknow	Jib 2
0.12	0.69	1.32	2.58	3.90	5.35	16.71	44.03			08/05/2017	Unknow	Jib 3
0.13	0.63	1.17	2.21	3.18	4.01	14.81	31.70			08/05/2017	Unknow	Staysail

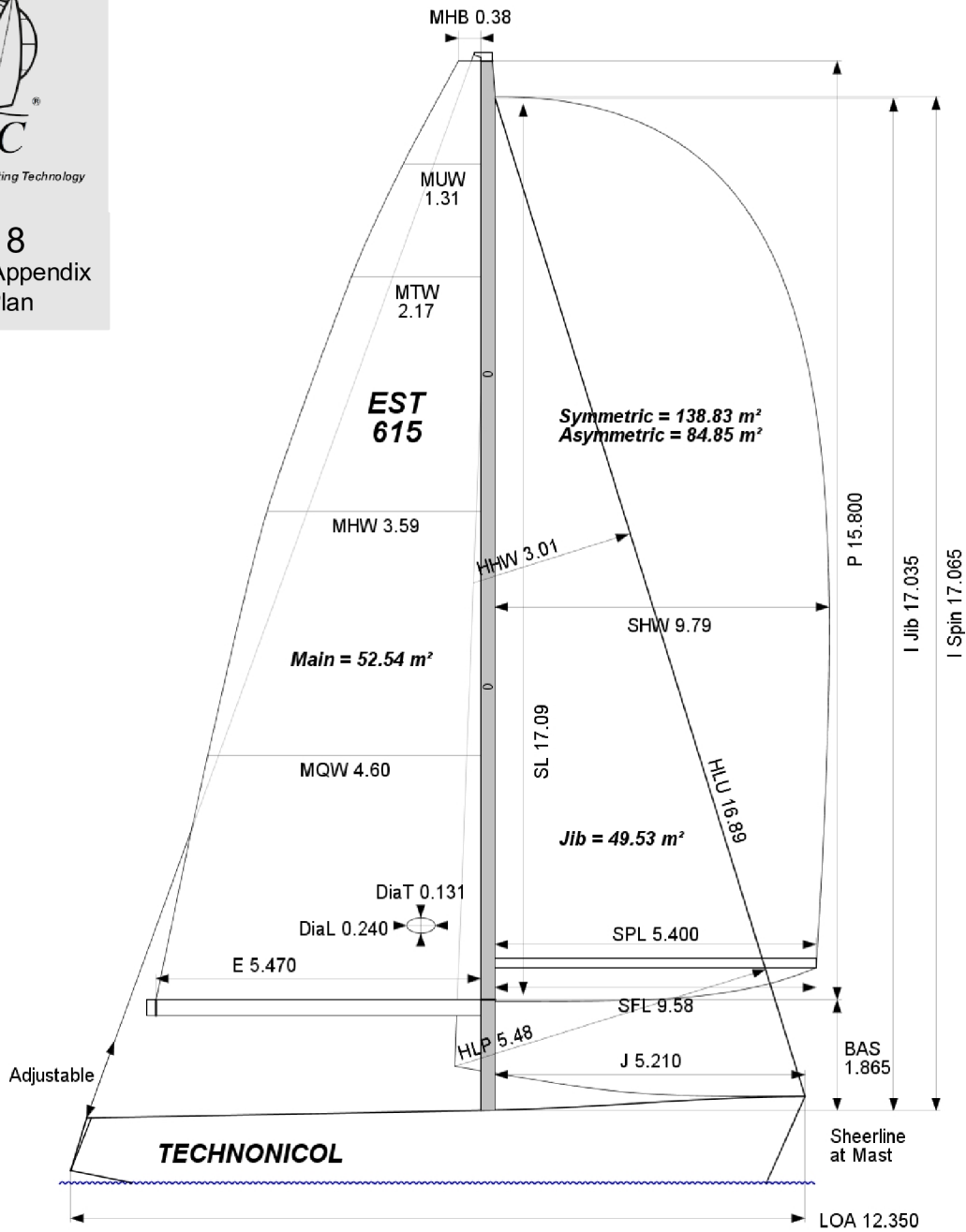
MEASUREMENT INVENTORY				
Measurer Paolo Luciani				
Date 05/07/2017				
Comment ORC Worlds 2017				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	VOLVO PENTA	D2-408	
Id	Item	Weight	Description	

MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
C	Tank	WASTE	Plastic	40.0	4.15	0.00	0-0	
B	Tank	FUEL	Steel	90.0	5.50	0.00	5-0	
A	Tank	WATER	Plastic	210.0	5.20	0.00	0-0	
Id	Item	Weight	Distance	VCG	Description			
C	Battery	0.0	7.50	0.00	30 Ah Engine			
B	Battery	0.0	4.50	0.00	180 Ah Sevice			
-	Misc				Removed closet in front cabin			
-	Misc				Removed decorative wall panels			
-	Misc				Removed sofa backboards in saloon			
-	Misc				Rem.hammock, closet doors in back cabin			



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
C	0.380	1.31	2.17	3.59	4.60	52.54	SLO 03	10/05/2018	OneSails	Unknown	P15,80;E5,47

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
C	0.19	0.97	1.75	3.01	4.22	5.48	16.89	105%	49.53			SLO 03	15/06/2017	OneSails	Unknown	Jib 1
D	0.18	0.88	1.61	2.91	4.14	5.47	16.89	105%	48.24			SLO 03	15/06/2017	OneSails	Unknown	Jib 2
E	0.12	0.69	1.32	2.58	3.90	5.35	16.71	103%	44.03			SLO 03	08/05/2017	OneSails	Unknown	Jib 3
F	0.13	0.63	1.17	2.21	3.18	4.01	14.81	77%	31.70			SLO 03	08/05/2017	OneSails	Unknown	Staysail

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
C	17.09	17.09	17.09	9.79	9.58	138.83	SLO 03	15/06/2017	OneSails	Unknown	S 1
D	16.97	16.97	16.97	9.70	10.11	138.33	SLO 03	15/06/2017	OneSails	Unknown	S 2

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A	16.92	15.56	16.24	5.88	7.83	84.85	asym	SLO 03	15/06/2017	OneSails	Unknown	A 0