

BOAT Name TECHNICOL Sail Nr EST-615	GPH 574,3	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 0,357% Offset File X41_k2016_mkRUD.off - 15.07.2017 Measurement by Tetsmann/Luciani - 05.07.2017		IMSL 11,061m VCGD -0,231m Sink 22,89kg/mm RL 9,882m VCGM -0,243m WS 32,25m² LSMO 10,938m Displacement/Length ratio 5,2276



Rating Office EYU Regati 1 11911, Tallinn Estonia
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	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	559,1			627,9		
Time On Time	1,0732			1,0750		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	661,9	508,2	448,3	862,5	630,9	544,0
Time on Time	1,0198	1,3283	1,5058	0,7826	1,0699	1,2409

Wind Velocity	TIME ALLOWANCES						
	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	985,7	811,9	712,8	671,7	651,9	640,4	625,6
52°	637,6	531,0	479,8	463,8	456,6	452,6	443,8
60°	596,8	502,8	464,7	449,5	442,2	437,8	428,6
75°	562,9	483,7	453,3	433,5	419,2	411,4	404,0
90°	562,8	482,4	451,0	430,9	410,0	392,0	374,4
110°	589,1	484,6	445,6	419,7	397,6	384,8	362,1
120°	605,1	494,5	451,5	422,8	393,9	371,8	343,6
135°	670,0	538,5	472,9	442,7	416,0	388,8	332,6
150°	797,2	633,9	532,2	473,5	445,0	420,4	371,1
Run VMG	920,5	732,0	614,5	540,8	494,4	459,2	411,6

Certificate Number EST615 ORC Ref EST00001526 Issued On 18.07.2017 VPP Ver. 2017 1.00 Valid until 31.12.2017

Crew Weight Declared 900kg Default* 782kg Non Manual Pwr No
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Special Scoring ToD ToT Double H.GPH 578,8 1,0367 Double H.OSN 564,4 1,0630 Non Spin GPH 604,9 0,9919 Non Spin OSN 589,4 1,0179

Selected Courses							
Windward / Leeward	953,1	772,0	663,7	606,2	573,1	549,8	518,6
Circular Random	794,2	640,0	557,1	508,6	478,2	457,4	429,0
Ocean for PCS	977,2	753,0	626,3	548,5	497,4	461,0	409,2
Non Spinnaker	848,2	678,5	586,1	531,3	496,8	473,6	442,8

Sails Limitations Headsails 6 Spinnakers 4

Wind Velocity	Velocity Prediction in Knots for True Wind Speeds						
	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	44,0°	43,0°	42,1°	40,2°	39,6°	39,2°	38,7°
Beat VMG	3,65	4,43	5,05	5,36	5,52	5,62	5,75
52°	5,65	6,78	7,50	7,76	7,88	7,95	8,11
60°	6,03	7,16	7,75	8,01	8,14	8,22	8,40
75°	6,40	7,44	7,94	8,30	8,59	8,75	8,91
90°	6,40	7,46	7,98	8,35	8,78	9,18	9,62
110°	6,11	7,43	8,08	8,58	9,05	9,35	9,94
120°	5,95	7,28	7,97	8,51	9,14	9,68	10,48
135°	5,37	6,69	7,61	8,13	8,65	9,26	10,82
150°	4,52	5,68	6,76	7,60	8,09	8,56	9,70
Run VMG	3,91	4,92	5,86	6,66	7,28	7,84	8,75
Gybe Angles	141,0°	147,2°	148,8°	155,5°	168,6°	180,0°	180,0°

Class Division Length CDL = 10,473

Storm Sails Areas Heavy Weather Jib 39,52 Storm Jib (JL=11,12) 14,64 Storm Trysail 15,30

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		203,1kg·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 15,920	E 5,490	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 0,670	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	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,360	1,29	2,14	3,56	4,57	52,60	53,68	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	Stay sail

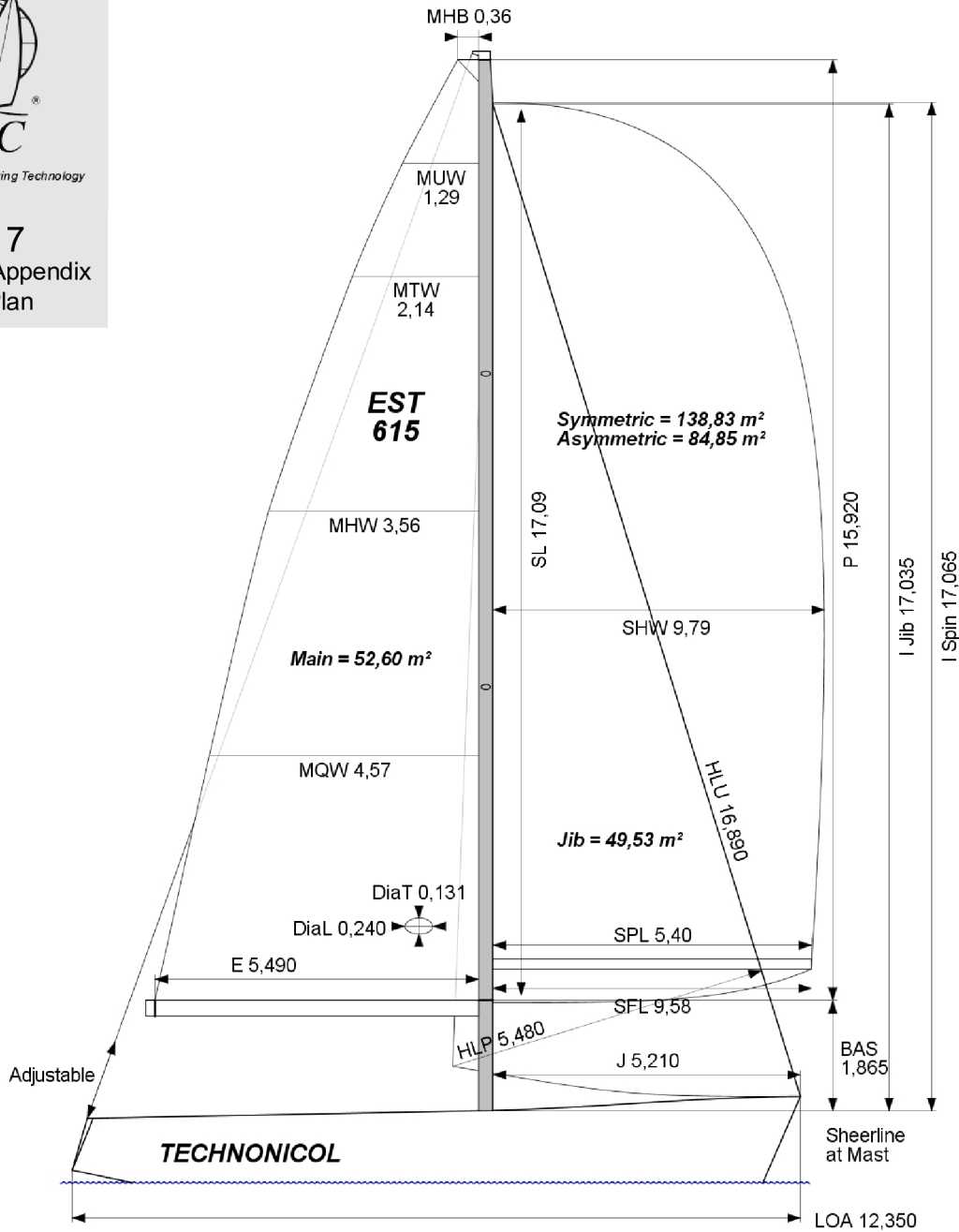
MEASUREMENT INVENTORY				
Measurer Paolo Luciani				
Date 05.07.2017				
Comment ORC Worlds 2017				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	VOLVO PENTA	D2-408	
Id	Item	Weight Description		

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 Service			
-	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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Certificate Appendix
Sail Plan



SAILS INVENTORY

MANSAL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measur	Meas.Date	Manufacture	Material	Comment					
B	0,360	1,29	2,14	3,56	4,57	52,60	SLO 03	15.06.2017	OneSails	Unknown	P15,92;E5,49 -					
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measur	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	Measur	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	Measur	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				