BOAT

Name **Technonicol**
Sail Nr **EST 615**

GPH

565.1

GENERAL

Class	**X-41 mod**
Designer	**JEPPESEN**
Builder	**X YACHTS**
Series	**01/2006**
Age	**04/2010**
Age Allow ance	**0.422%**
Offset File	**EST615.off - 5/13/2019 10:11:32 PM**
Measurement by	**Tetsmann/Pindozzi - 27/05/2019**

HULL

Length Overall	**12.350m**
Maximum Beam	**3.646m**
Displacement	**7,068kg**
Draft	**2.320m**
IMS Reg. Division	**Cruiser/Racer**
Dynamic Allow ance	**0.011%**
Fw d Accommodation	**Yes**
Hull Construction	**Cored**
Carbon Rudder	**No**
Crew Arm Extension	

IMSL	**11.140m**	VCGD	**-0.157m**	Sink	**23.10kg/mm**
RL	**10.137m**	VCGM	**-0.179m**	WS	**32.62m²**
LSM0	**11.024m**	Displacement/Length ratio			**5.2757**

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EYU
Purje 8
11911, Tallinn
Estonia

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	**551.1**			**617.1**		
Time on Time	**1.0886**			**1.0938**		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	**640.7**	**502.6**	**449.3**	**833.2**	**619.6**	**541.7**
Time on Time	**1.0536**	**1.3430**	**1.5024**	**0.8101**	**1.0895**	**1.2460**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**952.7**	**781.0**	**695.1**	**663.2**	**649.4**	**639.2**	**627.5**
52°	**617.7**	**515.8**	**478.8**	**465.3**	**459.6**	**456.7**	**448.4**
60°	**577.5**	**491.8**	**463.3**	**452.8**	**446.9**	**443.7**	**435.4**
75°	**541.6**	**474.9**	**450.0**	**435.6**	**427.4**	**421.5**	**414.8**
90°	**539.8**	**475.2**	**449.9**	**431.2**	**414.2**	**400.7**	**386.3**
110°	**566.5**	**475.3**	**441.6**	**420.5**	**406.1**	**390.1**	**357.0**
120°	**580.2**	**482.3**	**445.4**	**417.7**	**392.6**	**376.7**	**348.7**
135°	**651.9**	**522.1**	**464.6**	**436.0**	**408.4**	**381.5**	**325.7**
150°	**770.4**	**614.4**	**519.2**	**467.5**	**440.1**	**414.9**	**364.5**
Run VMG	**889.6**	**709.5**	**599.5**	**532.7**	**489.2**	**455.7**	**407.8**
Selected Courses							
Windward / Leeward	**921.1**	**745.3**	**647.3**	**598.0**	**569.3**	**547.5**	**517.7**
Circular Random	**772.5**	**626.0**	**548.6**	**504.2**	**476.5**	**457.4**	**430.0**
Coastal / Long Distance	**918.0**	**699.4**	**584.7**	**522.7**	**488.2**	**459.8**	**413.3**
Non Spinnaker	**843.4**	**675.7**	**585.0**	**531.9**	**498.9**	**476.8**	**447.9**

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	**43.6°**	**42.2°**	**40.4°**	**38.9°**	**38.3°**	**38.2°**	**38.5°**
Beat VMG	**3.78**	**4.61**	**5.18**	**5.43**	**5.54**	**5.63**	**5.74**
52°	**5.83**	**6.98**	**7.52**	**7.74**	**7.83**	**7.88**	**8.03**
60°	**6.23**	**7.32**	**7.77**	**7.95**	**8.06**	**8.11**	**8.27**
75°	**6.65**	**7.58**	**8.00**	**8.26**	**8.42**	**8.54**	**8.68**
90°	**6.67**	**7.58**	**8.00**	**8.35**	**8.69**	**8.98**	**9.32**
110°	**6.35**	**7.57**	**8.15**	**8.56**	**8.87**	**9.23**	**10.08**
120°	**6.20**	**7.46**	**8.08**	**8.62**	**9.17**	**9.56**	**10.32**
135°	**5.52**	**6.89**	**7.75**	**8.26**	**8.81**	**9.44**	**11.05**
150°	**4.67**	**5.86**	**6.93**	**7.70**	**8.18**	**8.68**	**9.88**
Run VMG	**4.05**	**5.07**	**6.00**	**6.76**	**7.36**	**7.90**	**8.83**
Gybe Angles	**143.9°**	**146.8°**	**149.7°**	**156.0°**	**169.9°**	**180.0°**	**180.0°**

Certificate

Number	**EST615**
ORC Ref	**EST00000603**
Issued On	**5/29/2019**
VPP Ver.	**2019 1.01**
Valid until	**12/31/2019**

Crew Weight

Default	791kg
Maximum	**890kg**
Minimum*	**668kg**

*when applied by the NoR and SI

Non Manual Pwr	**No**

Special Scoring

	ToD	ToT
Double H.GPH	**575.2**	**1.0431**
Double H.OSN	**563.1**	**1.0655**
Non Spin GPH	**603.8**	**0.9937**
Non Spin OSN	**587.6**	**1.0211**

Sails Limitations

Headsails	Spinnakers
6	**4**

Class Division Length

CDL = **10.640**

Storm Sails Areas

Heavy Weather Jib	**39.53**
Storm Jib (JL=11.13)	**14.64**
Storm Trysail	**15.13**

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BOAT

Name	**Technonicol**	Sail Nr	**EST 615**
File	**Est0615**	Data in	**meters/kilograms**

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	**18.200**	SFJ		MDT2	**0.115**	BD	**0.270**
BAS	**1.865**	SPL	**5.670**	MDL2	**0.190**	MWT	**187.00**
FSP	**0.076**	TPS	**6.480**	TL	**0.550**	MCG	**5.700**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **18/04/2019** SG **1.0030**

FFM	**1.437**	FF	**1.449**	SFFP	**0.200**
FAM	**1.090**	FA	**1.095**	SAFP	**11.995**
W1	**110.0**	PD1	**569.1**	WD	**13.220**
W2	**110.0**	PD2	**546.1**	GSA	**1.0**
W3	**110.0**	PD3	**571.1**	RSA	**1.0**
W4	**110.0**	PD4	**568.7**	PLM	**9000.0**

LCF from stem on CL / on sheer	**6.923 / 7.135**
Maximum beam station from stem	**8.432**
RM Measured	**203.2kg·m**
RM Default	**205.9kg·m**
Limit of positive stability / Stab.Index	**128.2° / 132.1**
Freeboard at mast at 5.210	**1.207**

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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**

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VPP Ver.	**2019 1.01**
Valid until	**12/31/2019**

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**			
	17.80	17.80	17.80	9.99	10.48	149.64		SL · (SFL + 4·SHW) / 6
Asymmetric	**SLU**	**SLE**	**SL**	**SHW**	**SFL**			
on centerline	19.20	17.52	18.36	10.27	11.13	159.76		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
0.11	0.83	1.58	3.07	4.49	5.80	18.39	55.35		Y	20/05/2019	Unknow	
0.19	0.96	1.75	2.99	4.21	5.40	16.78	48.86			27/05/2019	Unknow	Jib 1
0.18	0.86	1.60	2.89	4.10	5.40	16.62	46.99			27/05/2019	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 **Pindozzi Grubiša**
Date **18/04/2019**
Comment **Crack Boats**

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	~~30.0~~	
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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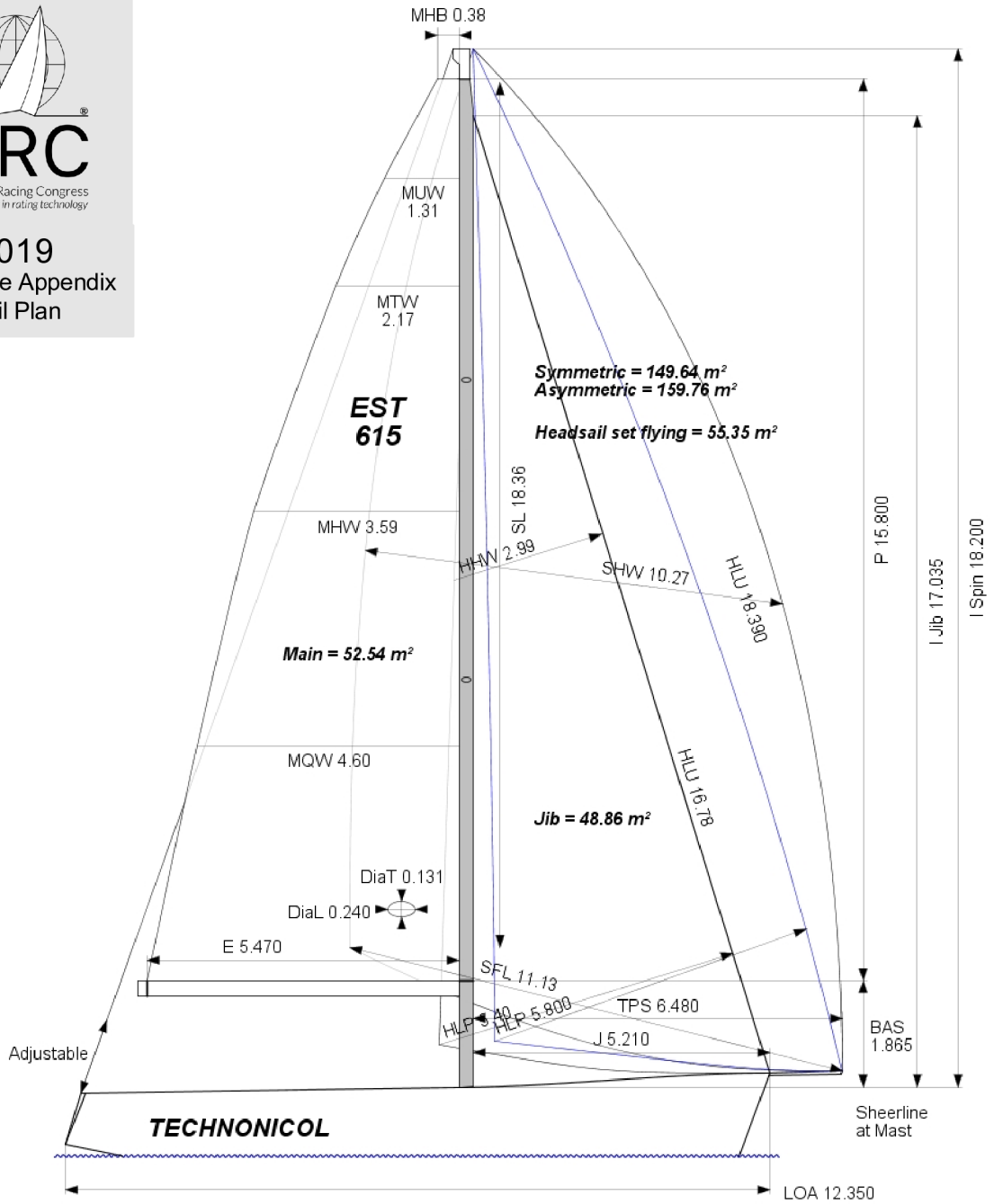
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
C	0.38	1.31	2.17	3.59	4.60	52.55	SLO 03	10/05/2018	OneSails	Unknown	P15,80;E5,47

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G	0.11	0.83	1.58	3.07	4.49	5.80	18.39	111%	55.35		Y	SLO 03	20/05/2019	OneSails	Unknow	
C	0.19	0.96	1.75	2.99	4.21	5.40	16.78	104%	48.86			Pindozzi	27/05/2019	OneSails	Unknow	Jib 1
D	0.18	0.86	1.60	2.89	4.10	5.40	16.62	104%	46.99			Pindozzi	27/05/2019	OneSails	Unknow	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	Unknow	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	Unknow	Staysail

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
E	17.80	17.80	17.80	9.99	10.48	149.64	Gale	17/04/2019	One Sails	Nylon	
F	17.84	17.84	17.84	9.84	10.86	149.33	Gale	17/04/2019	One Sails	Nylon	

ASYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
B	19.20	17.52	18.36	10.27	11.13	159.77	asym	SLO 03	17/04/2019	OneSails	Unknown	A 1
C	18.68	17.35	18.02	5.90	7.83	94.37	asym	SLO 03	20/05/2019	OneSails	Unknown	A 0

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