BOAT

Name **MY-CAR**
Sail Nr **EST 535**

GPH

611.9

GENERAL

Class	**X-35 mod**
Designer	**JEPPESEN**
Builder	**X YACHTS**
Series	**09/2005**
Age	**09/2008**
Age Allow ance	**0.455%**
Offset File	**X35mk2DEFmkRud.off - 6/11/2017**
Measurement by	**Tetsmann - 31/07/2019**

HULL

Length Overall	**10.600m**
Maximum Beam	**3.250m**
Displacement	**4,632kg**
Draft	**2.000m**
IMS Reg. Division	**Cruiser/Racer**
Dynamic Allow ance	**0.065%**
Fw d Accommodation	**Yes**
Hull Construction	**Cored**
Carbon Rudder	**No**
Crew Arm Extension	

IMSL	**9.482m**	VCGD	**-0.166m**	Sink	**17.52kg/mm**
RL	**9.000m**	VCGM	**-0.179m**	WS	**24.67m²**
LSM0	**9.315m**	Displacement/Length ratio			**5.7309**

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Rating Office

EYU
Purje 8
11911, Tallinn
Estonia

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	**594.3**			**662.8**		
Time on Time	**1.0096**			**1.0184**		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	**701.2**	**542.1**	**481.9**	**905.4**	**664.2**	**578.3**
Time on Time	**0.9626**	**1.2451**	**1.4006**	**0.7455**	**1.0163**	**1.1672**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**1035.2**	**851.5**	**746.2**	**703.9**	**687.4**	**680.7**	**668.4**
52°	**675.3**	**566.6**	**517.0**	**498.4**	**491.6**	**488.2**	**481.5**
60°	**635.9**	**542.6**	**504.5**	**486.5**	**477.9**	**473.4**	**467.2**
75°	**608.0**	**526.7**	**495.2**	**474.7**	**458.5**	**448.6**	**440.5**
90°	**616.0**	**527.3**	**489.9**	**472.6**	**452.1**	**433.2**	**409.8**
110°	**621.5**	**519.1**	**480.6**	**452.2**	**430.5**	**416.8**	**394.4**
120°	**639.0**	**528.2**	**485.8**	**455.5**	**426.4**	**400.8**	**372.2**
135°	**706.5**	**571.3**	**507.3**	**475.8**	**447.0**	**419.3**	**361.6**
150°	**837.6**	**665.2**	**561.9**	**506.4**	**477.2**	**450.6**	**399.8**
Run VMG	**967.2**	**768.1**	**648.3**	**574.2**	**522.8**	**489.4**	**438.9**
Selected Courses							
Windward / Leeward	**1001.1**	**809.8**	**697.3**	**639.0**	**605.1**	**585.0**	**553.6**
Circular Random	**842.4**	**680.4**	**593.7**	**543.5**	**512.4**	**491.4**	**462.4**
Coastal / Long Distance	**997.7**	**761.0**	**631.4**	**561.8**	**523.5**	**492.5**	**442.5**
Non Spinnaker	**903.1**	**723.2**	**625.7**	**568.5**	**533.0**	**509.5**	**478.5**

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	**42.8°**	**41.6°**	**40.3°**	**39.1°**	**38.2°**	**38.0°**	**37.9°**
Beat VMG	**3.48**	**4.23**	**4.82**	**5.11**	**5.24**	**5.29**	**5.39**
52°	**5.33**	**6.35**	**6.96**	**7.22**	**7.32**	**7.37**	**7.48**
60°	**5.66**	**6.64**	**7.14**	**7.40**	**7.53**	**7.60**	**7.71**
75°	**5.92**	**6.84**	**7.27**	**7.58**	**7.85**	**8.03**	**8.17**
90°	**5.84**	**6.83**	**7.35**	**7.62**	**7.96**	**8.31**	**8.78**
110°	**5.79**	**6.94**	**7.49**	**7.96**	**8.36**	**8.64**	**9.13**
120°	**5.63**	**6.82**	**7.41**	**7.90**	**8.44**	**8.98**	**9.67**
135°	**5.10**	**6.30**	**7.10**	**7.57**	**8.05**	**8.59**	**9.96**
150°	**4.30**	**5.41**	**6.41**	**7.11**	**7.54**	**7.99**	**9.01**
Run VMG	**3.72**	**4.69**	**5.55**	**6.27**	**6.89**	**7.36**	**8.20**
Gybe Angles	**144.5°**	**148.4°**	**150.7°**	**157.9°**	**180.0°**	**180.0°**	**180.0°**

Certificate

Number **EST535**
ORC Ref **EST00000824**
Issued On **7/31/2019**
VPP Ver. **2019 1.01**
Valid until **12/31/2019**

Crew Weight

Default	622kg
Maximum	**798kg**
Minimum*	**599kg**

**when applied by the NoR and SI*

Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	**623.2**	**0.9627**
Double H.OSN	**607.3**	**0.9880**
Non Spin GPH	**645.8**	**0.9291**
Non Spin OSN	**626.5**	**0.9577**

Sails Limitations

Headsails	Spinnakers
5	**3**

Class Division Length

CDL = **9.242**

Storm Sails Areas

Heavy Weather Jib	**27.29**
Storm Jib (JL=9.25)	**10.11**
Storm Trysail	**11.50**

Owner

X-35 OÜ
Regati 1, Tallinn
Estonia
ESS Kalev JK

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

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BOAT

Name	**MY-CAR**	Sail Nr	**EST 535**
File	**Est0535**	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	**Yes**	Main Furler	**No**
Lenticular Rigging	**No**	Without Backstay	**No**
Articulated Bowsprit	**No**		

P	**13.400**	E	**4.900**	MDT1	**0.101**	MW	**0.225**
IG	**14.160**	J	**4.185**	MDL1	**0.233**	GO	**0.242**
ISP	**14.610**	SFJ		MDT2	**0.076**	BD	**0.220**
BAS	**1.540**	SPL	**4.400**	MDL2	**0.160**	MWT	**94.00**
FSP	**0.068**	TPS		TL	**1.250**	MCG	**5.100**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **09/06/2018** SG **1.0000**

FFM	**1.287**	FF	**1.296**	SFFP	**0.075**
FAM	**0.993**	FA	**0.999**	SAFP	**10.275**

W1	**80.3**	PD1	**597.7**	WD	**11.740**
W2	**80.3**	PD2	**595.7**	GSA	**1.0**
W3	**80.3**	PD3	**594.5**	RSA	**1.0**
W4	**80.3**	PD4	**594.8**	PLM	**9000.0**

LCF from stem on CL / on sheer	**5.914 / 6.112**
Maximum beam station from stem	**7.300**
RM Measured	**124.6kg·m**
RM Default	**121.2kg·m**
Limit of positive stability / Stab.Index	**128.5° / 129.6**
Freeboard at mast at 4.185	**1.098**

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MIZZEN RIG AND SAILS

N/A

PROPELLER

Installation	**Strut**			PRD	**0.420**
Type	**Folding 2 blades**			PBW	**0.128**
Twin Screw	**No**			PIPA	**0.0033**
ST1	**0.042**	ST3	**0.182**	ST5	**0.255**
ST2	**0.178**	ST4	**0.112**	EDL	**1.740**

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COMMENTS

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

SAILS (Maximum Areas)

Mainsail	**MHB**	**MUW**	**MTW**	**MHW**	**MQW**	**Area**	**Area (r)**	**Formula**
	0.380	1.16	1.94	3.24	4.18	40.33	41.34	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	**SLU**	**SLE**	**SL**	**SHW**	**SFL**			
	14.48	14.48	14.48	7.87	7.85	94.92		SL · (SFL + 4·SHW) / 6

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
0.21	0.72	1.28	2.33	3.34	4.41	14.10	32.45			09/06/2018	Unknow	Code 2
0.22	0.70	1.26	2.31	3.33	4.42	14.14	32.40			09/06/2018	Unknow	Code 1
0.09	0.63	1.20	2.21	3.30	4.39	14.38	32.09			31/07/2019	Unknow	JIB 2-2019
0.10	0.65	1.23	2.32	3.33	4.20	14.10	31.59			17/05/2016	Unknow	JibTop
0.14	0.58	1.09	2.15	3.26	4.42	13.36	29.30			08/06/2017	Unknow	Code 3
0.10	0.55	0.99	1.82	2.61	3.32	12.42	22.00			25/04/2017	Unknow	

MEASUREMENT INVENTORY

Measurer **Karl- Hannes tagu EST 7**
Date **09/06/2018**
Comment **Tallinn - Pirita**

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*

Id	*Item*	*Maker*	*Model*
1	Engine	Yanmar	3YM20C

Id	*Item*	*Weight*	*Description*

MEASUREMENT INVENTORY

Id	*Item*	*Tank Use*	*Tank Type*	*Capcty*	*Dist.*	*VCG*	*Condtn*	*Description*
1	Tank	fuel	st.stl	60.0	6.15		~~10.0~~	fuel
2	Tank	water	pvc	120.0	5.50		~~0.0~~	Water

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*
1	Battery		4.85		90 Ah
2	Battery		5.20		30 Ah
Re	Misc				Removed decorative wall panels

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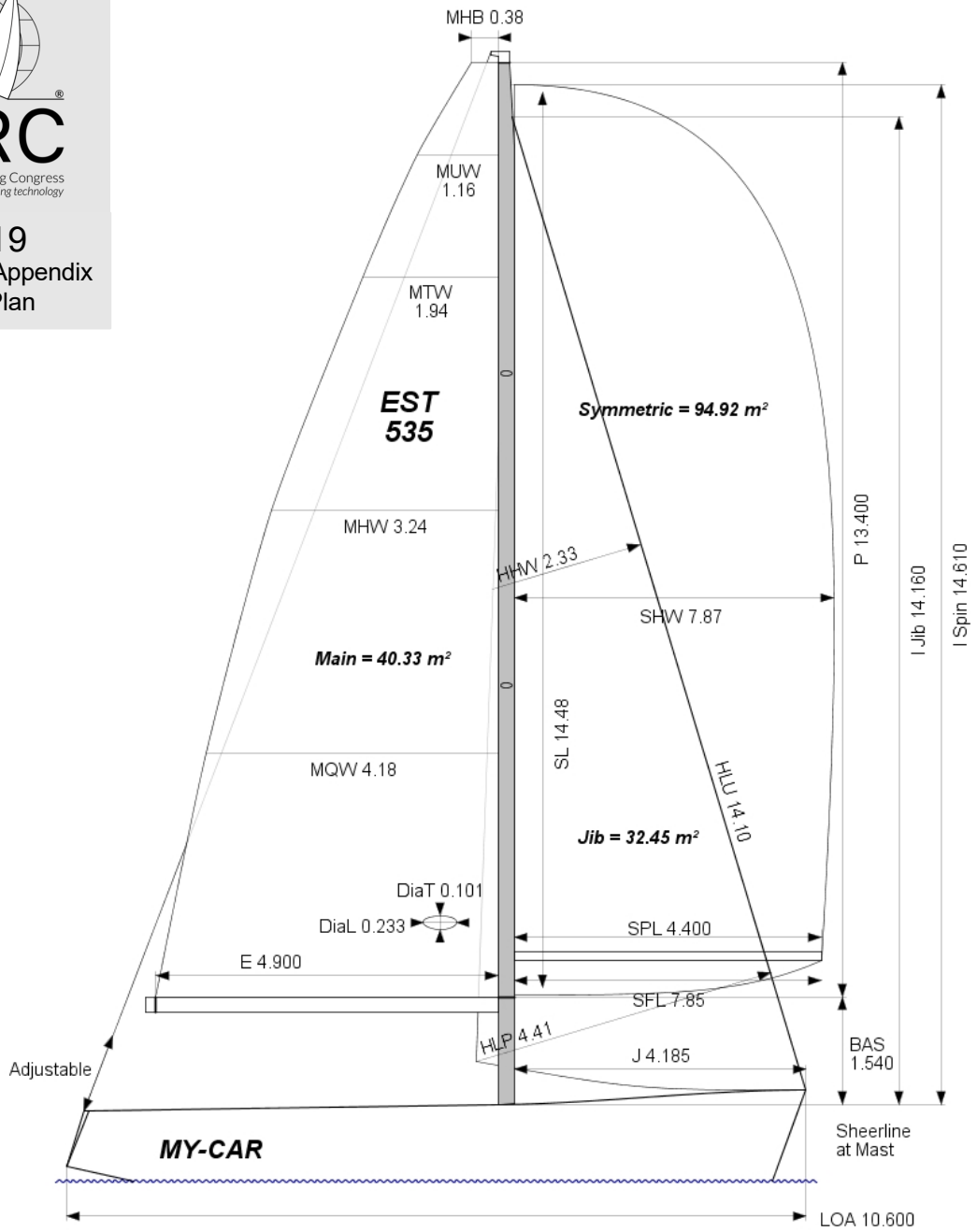
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
9	0.38	1.16	1.94	3.24	4.18	40.20	EST 7	09/06/2018	OneSails	Unknown	P13,40;E4,90
7a	0.43	1.10	1.81	3.03	4.01	38.55	EST 7	09/06/2018	OneSails	Unknown	P13,40;E4,88

HEADSAILS (6)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
11a	0.21	0.72	1.28	2.33	3.34	4.41	14.10	105%	32.45			EST 7	09/06/2018	OneSails	Unknow	Code 2
10a	0.22	0.70	1.26	2.31	3.33	4.42	14.14	106%	32.40			EST 7	09/06/2018	OneSails	Unknow	Code 1
14	0.09	0.63	1.20	2.21	3.30	4.39	14.38	105%	32.09			EST 8	31/07/2019		Unknow	JIB 2-2019
8a	0.10	0.65	1.23	2.32	3.33	4.20	14.10	100%	31.59			EST 1	17/05/2016	OneSails	Unknow	JibTop
12	0.14	0.58	1.09	2.15	3.26	4.42	13.36	106%	29.30			SLO 03	08/06/2017	OneSails	Unknow	Code 3
13	0.10	0.55	0.99	1.82	2.61	3.32	12.42	79%	22.00			SLO 03	25/04/2017	OneSails	Unknow	

SYMMETRIC SPINNAKERS (4)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
11	14.48	14.48	14.48	7.87	7.85	94.92	SLO 03	20/05/2019		Unknown	S 2
10	14.44	14.44	14.44	7.80	8.10	94.59	SLO 03	20/05/2019		Unknown	S 1
8	14.05	14.05	14.05	6.54	6.76	77.09	SLO 03	25/04/2017		Unknown	Reacher
3	13.95	13.95	13.95	6.25	6.80	73.94	EST 1	09/09/2013		Unknown	

ASYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment

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