

BOAT Name COOL WATER Sail Nr LTU 2777	GPH 607.4	HULL Length Overall 10.600m Maximum Beam 3.250m Displacement 4,589kg Draft 2.178m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-35 OD Designer N. Jeppesen Builder X Yachts Series 09/2005 Age 04/2009 Age Allowance 0.455% Offset File x35.od.off - 29/01/2015 16:31:16 Measurement by - 22/07/2017		IMSL 9.480m VCGD 0.120m Sink 17.78kg/mm RL 9.144m VCGM 0.104m WS 23.20m² LSM0 9.288m Displacement/Length ratio 5.7273



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Rating Office

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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	591.3			658.0		
Time on Time	1.0148			1.0258		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	688.3	540.3	484.8	885.4	659.1	579.2
Time on Time	0.9807	1.2494	1.3922	0.7624	1.0241	1.1654

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	994.6	824.2	730.2	698.3	686.9	680.6	670.3
52°	655.3	555.8	513.4	499.7	494.7	492.4	484.7
60°	621.2	536.3	502.4	487.6	481.8	478.8	470.7
75°	596.3	523.4	494.2	475.3	462.3	455.8	450.6
90°	604.3	523.9	488.5	470.2	453.7	437.5	420.9
110°	614.2	517.6	481.2	454.8	433.3	416.8	393.4
120°	632.2	526.8	486.5	457.6	430.1	407.3	370.8
135°	699.7	569.8	508.0	477.5	449.8	422.9	368.2
150°	829.7	662.0	561.4	507.4	479.0	453.4	404.0
Run VMG	958.0	764.4	647.4	574.5	522.9	490.4	441.4

Certificate

Number **LT2777**
ORC Ref **lt00000845**
Issued On **17/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default **620kg**
Maximum **758kg**
Minimum* **569kg**
**when applied by the NoR and SI*
Non Manual Pwr

Special Scoring

	ToD	ToT
Non Spin GPH	639.4	0.9384
Non Spin OSN	621.3	0.9658

Selected Courses							
Windward / Leeward	976.3	794.3	688.8	636.4	604.9	585.5	555.8
Circular Random	828.8	672.5	589.8	542.4	513.3	493.6	466.1
Coastal / Long Distance	974.5	747.9	625.3	560.6	525.2	496.0	446.1
Non Spinnaker	885.9	712.8	619.8	565.9	532.8	510.9	482.1

Sails Limitations

Headsails	Spinnakers
5	3

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	42.3°	40.9°	39.3°	37.8°	37.7°	37.2°	37.2°
Beat VMG	3.62	4.37	4.93	5.16	5.24	5.29	5.37
52°	5.49	6.48	7.01	7.21	7.28	7.31	7.43
60°	5.79	6.71	7.17	7.38	7.47	7.52	7.65
75°	6.04	6.88	7.28	7.57	7.79	7.90	7.99
90°	5.96	6.87	7.37	7.66	7.94	8.23	8.55
110°	5.86	6.96	7.48	7.92	8.31	8.64	9.15
120°	5.69	6.83	7.40	7.87	8.37	8.84	9.71
135°	5.15	6.32	7.09	7.54	8.00	8.51	9.78
150°	4.34	5.44	6.41	7.09	7.51	7.94	8.91
Run VMG	3.76	4.71	5.56	6.27	6.88	7.34	8.16
Gybe Angles	144.5°	148.6°	151.1°	158.5°	180.0°	180.0°	180.0°

Class Division Length

CDL = **9.313**

Storm Sails Areas

Heavy Weather Jib **28.66**
Storm Jib (JL=9.48) **10.62**
Storm Trysail **11.84**

Owner

BOAT			
Name	COOL WATER	Sail Nr	LTU 2777
File	CoolWater LTU2777	Data in	meters/kilograms

RIG			
Forestay Tension	Aft	Spreaders	2
Inner Stay	None Fitted	Runners	0
Carbon Mast	No	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	13.800	E	4.900
IG	14.500	J	4.185
ISP	14.530	SFJ	
BAS	1.745	SPL	4.180
FSP	0.068	TPS	4.180
MDT1	0.125	MW	0.184
MDL1	0.185	GO	0.204
MDT2	0.122	BD	0.220
MDL2	0.140	MWT	156.00
TL	1.230	MCG	4.600

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date		26/05/2018	SG
			1.0010
FFM	1.324	FF	1.334
FAM	0.956	FA	0.965
SFFP	0.075	SAFP	10.275
W1	65.0	PD1	296.0
W2	65.0	PD2	296.0
W3	65.0	PD3	296.0
W4	65.0	PD4	296.0
WD	10.780	GSA	314.2
RSA	20106.	PLM	2650.0
LCF from stem on CL / on sheer		6.016 / 6.210	
Maximum beam station from stem		7.300	
RM Measured		108.1kg-m	
RM Default		121.8kg-m	
Limit of positive stability / Stab.Index		112.4° / 113.4	
Freeboard at mast at 4.185		1.107	



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MIZZEN RIG AND SAILS			
N/A			

PROPELLER			
Installation	Strut	PRD	0.411
Type	Folding 2 blades	PBW	0.119
Twin Screw	No	PIPA	0.0033
ST1	0.042	ST3	0.182
ST2	0.178	ST4	0.112
ST5	0.255	EDL	2.390

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COMMENTS			

MOVABLE BALLAST			
N/A			

CENTERBOARD			
N/A			



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.400	1.04	1.74	2.95	3.96	38.93	39.55	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.34	14.34	14.34	7.76	7.55	92.23		SL · (SFL + 4·SHW) / 6	
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL				
	14.69	13.42	14.05	5.81	7.71	72.50		AS · (SFL + 4·SHW) / 6	

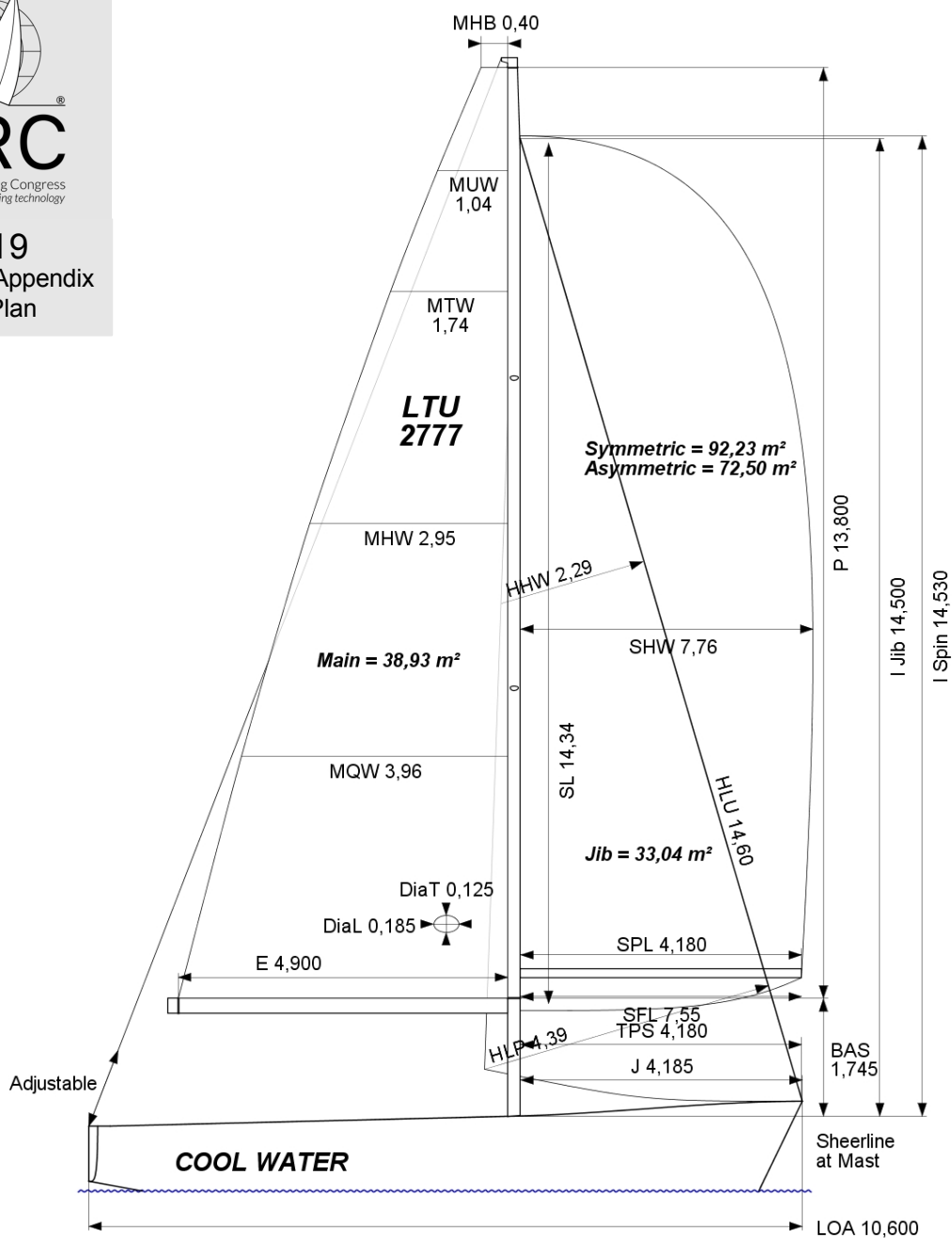
HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.10	0.65	1.21	2.29	3.34	4.39	14.60	33.05	Y		27/03/2019	Unknow	
0.09	0.62	1.18	2.26	3.32	4.37	14.50	32.48	Y		13/07/2018	Unknow	
0.10	0.61	1.18	2.23	3.38	4.33	14.46	32.38	Y		13/07/2018	Unknow	
0.10	0.52	0.95	1.83	2.81	3.92	14.45	27.54	Y		02/03/2019	Unknow	

MEASUREMENT INVENTORY				
Measurer LBS#6				
Date 26/05/2018				
Comment				
<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	Yanmar	3YM20C	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>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</i>	<i>Condtn Description</i>
1	Tank fuel		st.stl	60.0	6.15		55.0 fuel
2	Tank H2O		pvc	120.0	5.52		0.0 Water
3	Tank gas		steel	2.0	9.45		0.0 LPG gas
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>		
1	Battery	8.0	5.11		80 Ah gel - services		
2	Battery	18.4	4.83		55 Ah - engine		



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
7	0.40	1.04	1.74	2.95	3.96	38.94		13/06/2018		Unknown						
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
13	0.10	0.65	1.21	2.29	3.34	4.39	14.60	105%	33.05	Y			27/03/2019	NS	Unknown	
1	0.09	0.62	1.18	2.26	3.32	4.37	14.50	104%	32.48	Y			13/07/2018		Unknown	
2	0.10	0.61	1.18	2.23	3.38	4.33	14.46	103%	32.38	Y			13/07/2018		Unknown	
14	0.10	0.52	0.95	1.83	2.81	3.92	14.45	94%	27.54	Y			02/03/2019	NS	Unknown	
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	14.34	14.34	14.34	7.76	7.55	92.24		22/07/2017		Unknown	melynas					
7	14.36	14.36	14.36	7.75	7.52	92.20		02/05/2018		Unknown	OD					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	14.69	13.42	14.05	5.81	7.71	72.51	asym		25/05/2018		Unknown					