

BOAT Name TROTTOLINA Sail Nr X35 50	GPH 603.6	HULL Length Overall 10.600m Maximum Beam 3.250m Displacement 4,515kg Draft 2.174m 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 Designer JEPPESEN Builder X-YACHTS Series 09/2005, CIN DKXYA35053D606 Age 01/2006 Age Allowance 0.455% Offset File x35.od.off - 29/01/2015 16:31:16 Measurement by - 19/10/2018		IMSL 9.461m VCGD 0.076m Sink 17.68kg/mm RL 9.046m VCGM 0.065m WS 23.04m² LSM0 9.270m Displacement/Length ratio 5.6679



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SCORING OPTIONS						
Time on Distance	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	588.7			655.4		
Time on Time	1.0191			1.0300		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	678.9	538.4	485.1	872.8	657.3	580.3
Time on Time	0.9942	1.2537	1.3916	0.7734	1.0270	1.1631

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	975.2	808.8	726.7	702.1	692.7	682.7	678.1
52°	644.5	547.5	511.3	500.9	496.5	494.1	487.1
60°	611.7	530.0	499.8	488.3	483.3	480.8	471.9
75°	586.8	518.6	490.8	473.3	462.8	457.3	450.8
90°	592.2	518.6	485.6	469.3	450.3	435.8	422.7
110°	606.2	514.2	478.9	453.1	429.7	415.1	393.5
120°	624.4	523.2	484.2	454.9	427.5	406.7	370.6
135°	692.4	564.3	505.4	475.2	447.0	419.7	363.4
150°	821.6	656.7	557.6	505.1	476.8	450.6	400.2
Run VMG	948.7	758.3	642.8	570.9	519.9	488.0	438.0

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Number **141946**
ORC Ref **GER20040920**
Issued On **21/05/2019**
VPP Ver. **2019 1.01**
Valid until **01/01/2020**

Crew Weight
Default **618kg**
Maximum **650kg**
Minimum* **488kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Double H.GPH **615.2 0.9754**
Double H.OSN **602.0 0.9967**
Non Spin GPH **633.5 0.9471**
Non Spin OSN **616.7 0.9730**

Selected Courses							
Windward / Leeward	961.9	783.6	684.7	636.5	606.3	585.3	558.1
Circular Random	819.4	666.6	586.3	540.6	512.5	493.6	467.3
Coastal / Long Distance	960.6	738.3	621.7	560.4	525.3	495.8	446.8
Non Spinnaker	872.9	704.4	614.4	562.6	530.8	509.8	482.3

Sails Limitations
Headsails **5** Spinnakers **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	42.1°	40.8°	39.0°	38.0°	38.0°	37.4°	38.1°
Beat VMG	3.69	4.45	4.95	5.13	5.20	5.27	5.31
52°	5.59	6.58	7.04	7.19	7.25	7.29	7.39
60°	5.88	6.79	7.20	7.37	7.45	7.49	7.63
75°	6.13	6.94	7.34	7.61	7.78	7.87	7.99
90°	6.08	6.94	7.41	7.67	7.99	8.26	8.52
110°	5.94	7.00	7.52	7.95	8.38	8.67	9.15
120°	5.77	6.88	7.43	7.91	8.42	8.85	9.71
135°	5.20	6.38	7.12	7.58	8.05	8.58	9.91
150°	4.38	5.48	6.46	7.13	7.55	7.99	8.99
Run VMG	3.79	4.75	5.60	6.31	6.92	7.38	8.22
Gybe Angles	142.2°	148.3°	151.4°	158.9°	180.0°	180.0°	180.0°

Class Division Length
CDL = **9.255**

Storm Sails Areas
Heavy Weather Jib **28.70**
Storm Jib (JL=9.48) **10.63**
Storm Trysail **12.15**

Owner

BOAT	
Name TROTTOLINA	Sail Nr X35 50
File X3550	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 14.250	E 4.870 MDT1 0.125 MW 0.184
IG 14.509	J 4.190 MDL1 0.184 GO 0.204
ISP 14.509	SFJ MDT2 0.122 BD 0.220
BAS 1.729	SPL 4.180 MDL2 0.140 MWT 168.80
FSP 0.068	TPS 4.500 TL 1.210 MCG 4.650

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 19/10/2018		SG 1.0260	
FFM 1.331	FF 1.331	SFFP 0.075	
FAM 0.973	FA 0.974	SAFP 10.275	
W1 66.8	PD1 551.9	WD 11.550	
W2 66.8	PD2 549.9	GSA 1.0	
W3 66.8	PD3 549.3	RSA 1.0	
W4 66.8	PD4 547.7	PLM 9000.0	
LCF from stem on CL / on sheer		5.994 / 6.189	
Maximum beam station from stem		7.300	
RM Measured		110.5kg-m	
RM Default		121.9kg-m	
Limit of positive stability / Stab.Index		114.9° / 115.7	
Freeboard at mast at 4.190		1.109	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.415		
Type Folding 2 blades	PBW 0.101		
Twin Screw No	PIPA 0.0033		
ST1 0.042	ST3 0.180	ST5 0.255	
ST2 0.180	ST4 0.112	EDL 2.140	

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COMMENTS	
NO ONE DESIGN	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.210	1.07	1.87	3.16	4.09	41.59	42.43	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.32	14.32	14.32	7.80	7.21	91.67		SL · (SFL + 4·SHW) / 6	
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area (r)			
	14.25	13.18	13.71	5.47	7.29	66.68 72.14		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	3.36	4.44	14.56	33.14	Y		13/05/2019	Carbon	J1
0.09	0.64	1.18	2.23	3.28	4.40	14.34	32.00	Y		17/03/2018	Carbon	MAX LIGHT JIB
0.09	0.62	1.18	2.21	3.27	4.38	14.30	31.73	Y		17/03/2018	Carbon	

MEASUREMENT INVENTORY				
Measurer 162				
Date 19/10/2018				
Comment Perfect weather condition				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	YANMAR	RCO SAIL	
Id	Item	Weight Description		

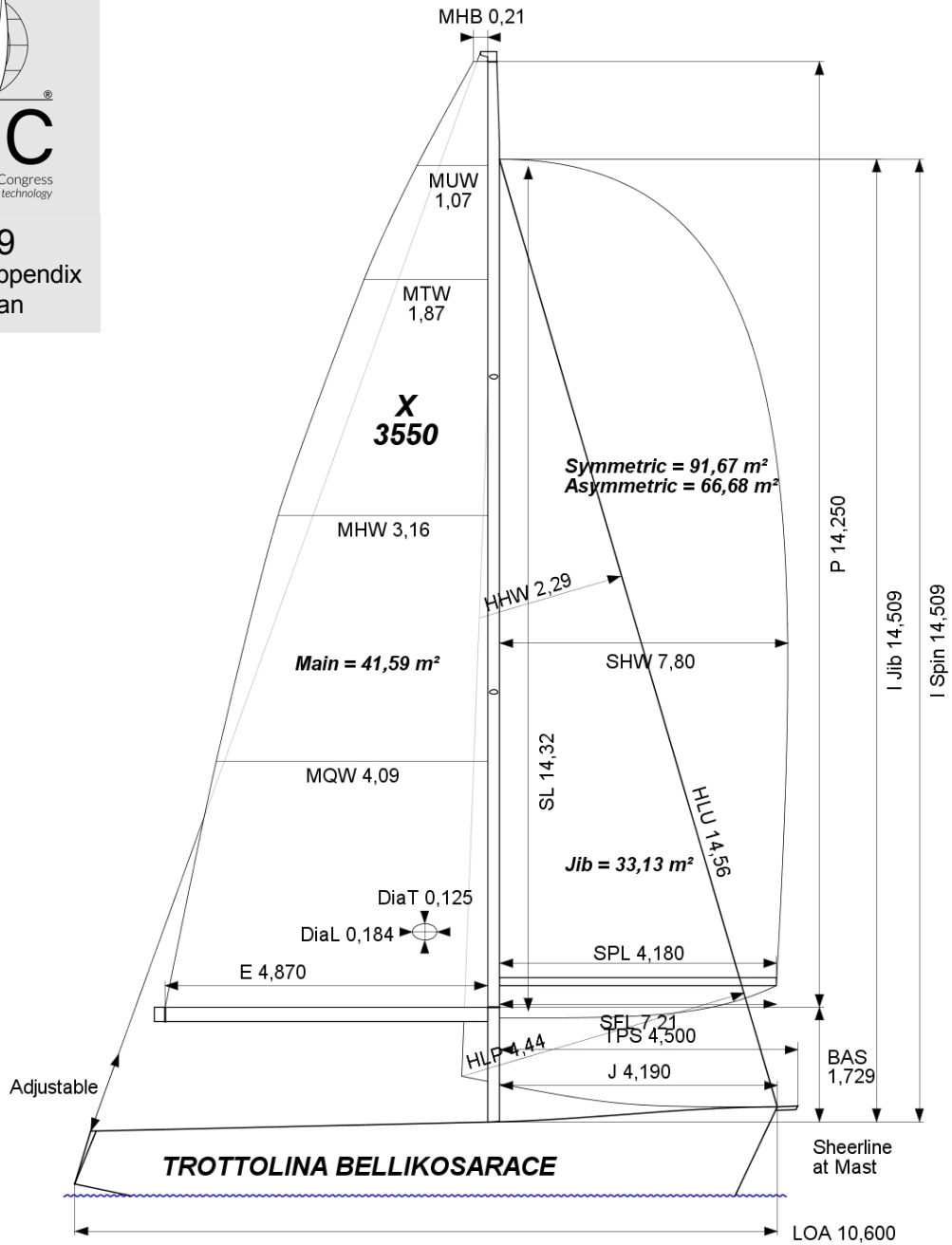
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
A	Tank	WATER	PVC	120.0	5.50		0-0 EMPTY LEFT SIDE
B	Tank	FUEL	INOX	60.0	6.40		15-0 RIGHT SIDE
Id	Item	Weight	Distance	VCG Description			
c	Ballast	27.4	6.00	2 lead bars in bilge central			
A	Ballast	54.3	4.80	2 lead bars in bilge left			
B	Ballast	29.2	6.20	2 lead bars in bilge left			
A	Battery	6.9	4.90	20 Ah engine			
B	Battery	11.9	4.90	80 Ah service equipment			



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Sail Plan



SAILS INVENTORY

MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
A	0.21	1.07	1.87	3.16	4.09	41.60		13/05/2019	BANKS	Carbon						
MN	0.21	1.08	1.86	3.16	4.08	41.55		17/03/2018	BANK SAILS	Carbon	MAX MAINSAIL					
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J1	0.10	0.65	1.21	2.29	3.36	4.44	14.56	106%	33.14	Y			13/05/2019	BANKS	Carbon	J1
J1	0.09	0.64	1.18	2.23	3.28	4.40	14.34	105%	32.00	Y			17/03/2018	BANKS	Carbon	MAX LIGHT JIB
J2	0.09	0.62	1.18	2.21	3.27	4.38	14.30	105%	31.73	Y			17/03/2018	BANKS	Carbon	Carbon
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
S2	14.32	14.32	14.32	7.80	7.21	91.68		17/03/2018	BANKS	Nylon	new max					
S1	14.32	14.32	14.32	7.59	7.51	90.39		13/05/2019	BANKS	Nylon	S1					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
a	14.25	13.18	13.71	5.47	7.29	66.68	asym		04/04/2019		Unknown					