

BOAT Name Aurora Pirnar Sail Nr SLO 3839	GPH 606.5	HULL Length Overall 10.600m Maximum Beam 3.250m Displacement 4,641kg Draft 2.181m 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 MOD. Designer Jeppesen Builder X-Yachts Series 09/2005, CIN DKXYA35163B707 Age 05/2007 Age Allowance 0.455% Offset File x35.od.off - 29/01/2015 16:31:16 Measurement by - 13/06/2011		IMSL 9.499m VCGD -0.012m Sink 17.82kg/mm RL 9.168m VCGM -0.031m WS 23.28m² LSM0 9.316m Displacement/Length ratio 5.7401



ORC
Offshore Racing Congress
World leader in rating technology

2019
ORC International
Certificate

Rating Office

Offshore
Racing
Congress



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	590.4			656.9		
Time on Time	1.0162			1.0275		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	685.9	539.8	485.2	882.0	658.1	578.7
Time on Time	0.9841	1.2505	1.3912	0.7653	1.0257	1.1665

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	989.0	820.4	728.9	697.4	685.8	679.9	669.8
52°	652.8	553.7	512.8	499.0	493.9	491.5	484.1
60°	619.2	534.8	501.7	487.0	481.0	477.8	470.1
75°	594.0	522.3	493.4	474.7	461.5	454.5	448.8
90°	600.3	522.6	489.5	472.2	452.9	436.6	418.9
110°	611.7	517.0	481.0	454.6	436.0	422.6	402.8
120°	630.5	526.3	486.4	457.7	430.3	407.0	380.7
135°	697.9	569.0	507.8	477.6	450.2	423.3	369.0
150°	827.6	660.8	560.8	507.3	479.0	453.5	404.2
Run VMG	955.7	763.0	646.5	573.9	522.3	489.9	441.0

Certificate
Number **I02/19**
ORC Ref **SLO00003888**
Issued On **10/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **622kg**
Maximum **669kg**
Minimum* **502kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	616.5	0.9733
Double H.OSN	602.1	0.9964
Non Spin GPH	637.0	0.9419
Non Spin OSN	619.2	0.9690

Selected Courses							
Windward / Leeward	972.4	791.7	687.7	635.6	604.0	584.9	555.4
Circular Random	826.3	671.0	588.9	542.0	513.2	493.9	467.2
Coastal / Long Distance	970.7	745.6	624.5	560.3	524.7	495.5	448.0
Non Spinnaker	881.3	709.7	617.6	564.3	531.5	509.8	481.0

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	42.2°	40.9°	39.2°	37.8°	37.6°	37.3°	37.6°
Beat VMG	3.64	4.39	4.94	5.16	5.25	5.29	5.37
52°	5.51	6.50	7.02	7.21	7.29	7.33	7.44
60°	5.81	6.73	7.18	7.39	7.49	7.53	7.66
75°	6.06	6.89	7.30	7.58	7.80	7.92	8.02
90°	6.00	6.89	7.35	7.62	7.95	8.25	8.59
110°	5.89	6.96	7.48	7.92	8.26	8.52	8.94
120°	5.71	6.84	7.40	7.87	8.37	8.84	9.46
135°	5.16	6.33	7.09	7.54	8.00	8.50	9.76
150°	4.35	5.45	6.42	7.10	7.52	7.94	8.91
Run VMG	3.77	4.72	5.57	6.27	6.89	7.35	8.16
Gybe Angles	144.4°	148.5°	151.4°	158.7°	180.0°	180.0°	180.0°

Class Division Length
CDL = **9.334**

Storm Sails Areas
Heavy Weather Jib **28.66**
Storm Jib (JL=9.48) **10.62**
Storm Trysail **11.90**

Owner

BOAT		
Name Aurora Pirnar	Sail Nr SLO 3839	
File SLO3839	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 13.900	E 4.890	MDT1 0.125	MW 0.184	
IG 14.500	J 4.186	MDL1 0.184	GO 0.204	
ISP 14.520	SFJ	MDT2 0.122	BD 0.220	
BAS 1.745	SPL 4.170	MDL2 0.140	MWT 168.00	
FSP 0.068	TPS	TL 1.210	MCG 4.700	

INCLINING TEST AND FREEBOARDS				
Inclining Test Current Inclining				
Flotation date 10/04/2019			SG 1.0270	
FFM 1.328	FF 1.328	SFFP 0.075		
FAM 0.964	FA 0.964	SAFP 10.275		
W1 80.0	PD1 594.2	WD 11.230		
W2 80.0	PD2 588.1	GSA 1.0		
W3 80.0	PD3 593.5	RSA 1.0		
W4 80.0	PD4 589.8	PLM 9000.0		
LCF from stem on CL / on sheer			6.013 / 6.207	
Maximum beam station from stem			7.300	
RM Measured			119.6kg-m	
RM Default			122.9kg-m	
Limit of positive stability / Stab.Index			119.9° / 121.1	
Freeboard at mast at 4.186			1.103	



ORC
Offshore Racing Congress
World leader in rating technology

2019
IMS Measurement
Certificate

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut		PRD 0.415	
Type Folding 2 blades		PBW	
Twin Screw No		PIPA 0.0033	
ST1 0.042	ST3 0.180	ST5 0.255	
ST2 0.180	ST4 0.112	EDL 2.390	

Certificate	
Number I02/19	
ORC Ref SLO00003888	
Issued On 10/05/2019	
VPP Ver. 2019 1.01	
Valid until 31/12/2019	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.170	1.07	1.86	3.18	4.12	40.72	41.59	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.36	14.36	14.36	7.52	7.76	90.56		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
0.10	0.65	1.20	2.26	3.31	4.42	14.39	32.42	Y		13/03/2017	Unknow	
0.11	0.62	1.10	2.24	3.30	4.41	14.44	32.13	Y		25/04/2017	Unknow	
0.10	0.48	0.91	1.82	2.84	3.90	14.19	26.90	Y		11/03/2017	Unknow	
0.07	0.36	0.66	1.38	2.19	3.09	9.72	14.21			07/05/2019	Dacron	

MEASUREMENT INVENTORY				
Measurer SLO03, CRO3				
Date 10/04/2019				
Comment Marina Portorož				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
E1	Engine	YAN MAR	RCD-2YM15	
Id	Item	Weight Description		

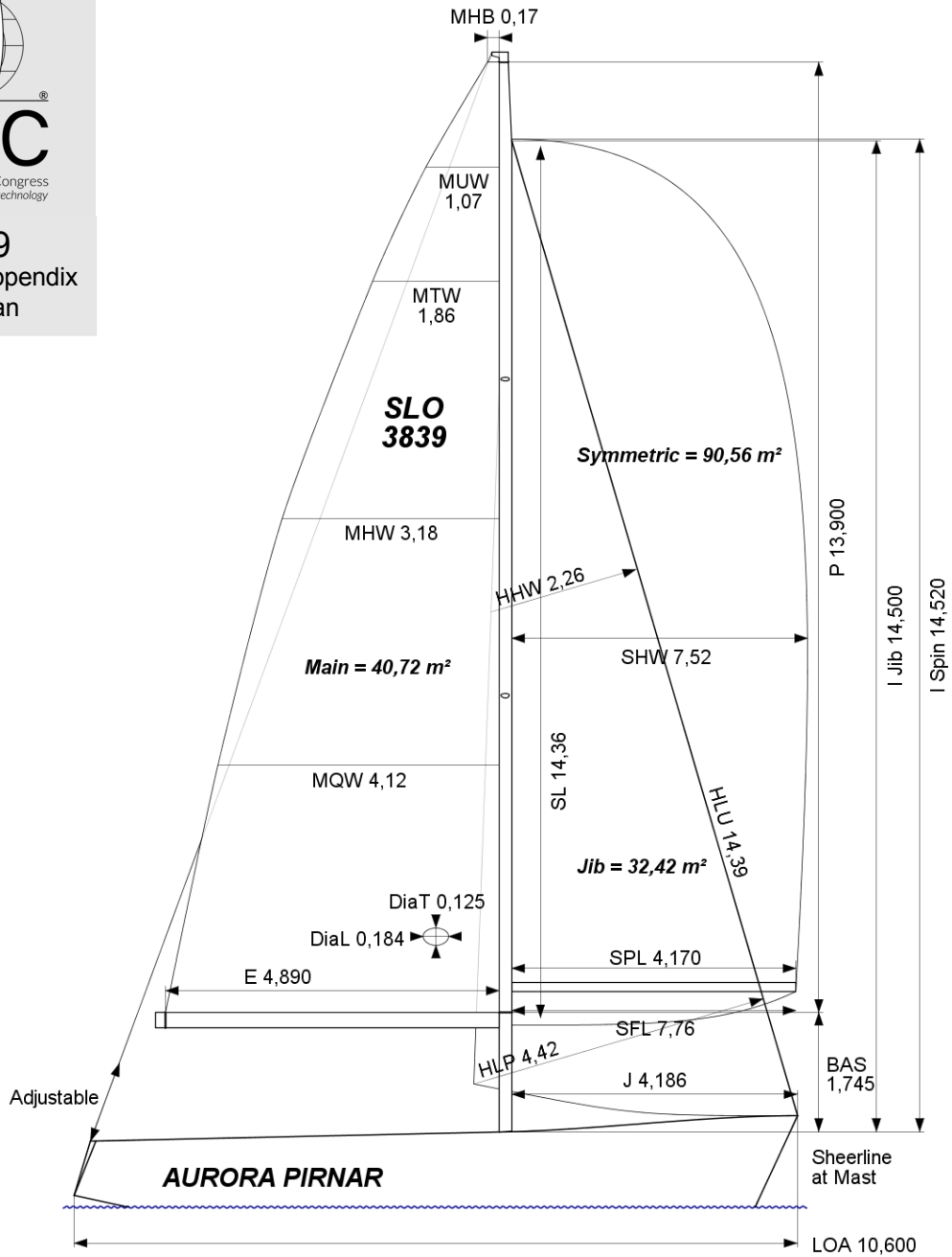
MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
T2	Tank	WATER	PVC	150.0	5.40		0-0	EMPTY	
T1	Tank	FUEL	INOX	60.0	6.10		7-0		
Id	Item	Weight	Distance	VCG Description					
BT3	Ballast	4.0	4.28	LEAD BARS ,CORRECTOR W. CLASS X-35					
BT2	Ballast	2.0	5.47	LEAD ,CORRECTOR W. CLASS X-35 OD					
BT1	Ballast	210.0	6.21	LEAD BARS IN BILGE					
B2	Battery	18.4	5.10	55 AH - ENGINE					
B1	Battery	46.8	4.80	120 AH SERVICE - EQUIPEMENTS					
GS1	Misc	3.0	9.57	GAS BOTTLE - FULL					



ORC

Offshore Racing Congress
World leader in rating technology

2019
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M2E	0.17	1.07	1.86	3.18	4.12	40.72		25/04/2017	Elwstroom	Unknown	
M1	0.21	1.07	1.85	3.16	4.09	40.56		22/03/2011	MILLENNIU	Unknown	

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J2E	0.10	0.65	1.20	2.26	3.31	4.42	14.39	106%	32.42	Y			13/03/2017	Elwstroom	Unknow	
J1E	0.11	0.62	1.10	2.24	3.30	4.41	14.44	105%	32.13	Y			25/04/2017	Elwstroom	Unknow	
J3E	0.10	0.48	0.91	1.82	2.84	3.90	14.19	93%	26.90	Y			11/03/2017	Elwstroom	Unknow	
J4E	0.07	0.36	0.66	1.38	2.19	3.09	9.72	74%	14.21				07/05/2019	Elwstroom	Dacron	

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1E	14.36	14.36	14.36	7.52	7.76	90.57		21/04/2017	Elwstroom	Nylon	
S2E	14.36	14.36	14.36	7.51	7.75	90.45		21/04/2017	Elwstroom	Nylon	

ASYMMETRIC SPINNAKERS (0)

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