

BOAT Name Athena Pirnar Sail Nr SLO 1596	GPH 605.4	HULL Length Overall 10.600m Maximum Beam 3.250m Displacement 4,491kg Draft 2.173m 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 DKXYA35230H212 Age 01/2012 Age Allowance 0.455% Offset File x35.od.off - 29/01/2015 16:31:16 Measurement by - 10/04/2019		IMSL 9.451m VCGD 0.022m Sink 17.63kg/mm RL 9.210m VCGM 0.011m WS 22.92m² LSM0 9.268m Displacement/Length ratio 5.6414



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	589.2			655.9		
Time on Time	1.0183			1.0291		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	685.3	538.6	483.5	881.8	657.1	577.6
Time on Time	0.9849	1.2533	1.3960	0.7655	1.0273	1.1687

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	989.0	819.4	726.9	695.8	684.6	678.3	669.0
52°	651.8	552.8	511.7	498.1	493.1	490.8	483.2
60°	617.9	533.8	500.6	485.9	479.9	476.8	468.4
75°	592.5	521.2	492.4	473.1	459.6	452.8	447.2
90°	599.8	521.3	488.2	470.6	450.6	434.0	416.7
110°	611.1	516.0	479.8	452.4	433.3	420.0	399.6
120°	629.7	525.4	485.4	455.9	427.9	404.0	376.9
135°	698.0	568.4	507.4	476.9	448.8	421.6	365.6
150°	828.1	660.5	560.4	506.8	478.2	452.1	402.1
Run VMG	956.2	762.6	646.0	573.4	521.7	489.3	439.5

Certificate

Number **IP2/9**
ORC Ref **SLO00003884**
Issued On **10/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default **618kg**
Maximum **720kg**
Minimum* **540kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	617.3	0.9720
Double H.OSN	603.1	0.9949
Non Spin GPH	635.9	0.9435
Non Spin OSN	618.1	0.9707

Selected Courses							
Windward / Leeward	972.6	791.0	686.4	634.6	603.2	583.8	554.3
Circular Random	825.5	670.0	587.8	540.7	511.7	492.3	465.4
Coastal / Long Distance	970.9	744.9	623.3	559.1	523.3	493.7	445.7
Non Spinnaker	880.5	708.8	616.6	563.0	530.0	507.9	477.9

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°	39.2°	38.0°	37.7°	37.2°	37.6°
Beat VMG	3.64	4.39	4.95	5.17	5.26	5.31	5.38
52°	5.52	6.51	7.04	7.23	7.30	7.34	7.45
60°	5.83	6.74	7.19	7.41	7.50	7.55	7.68
75°	6.08	6.91	7.31	7.61	7.83	7.95	8.05
90°	6.00	6.91	7.37	7.65	7.99	8.30	8.64
110°	5.89	6.98	7.50	7.96	8.31	8.57	9.01
120°	5.72	6.85	7.42	7.90	8.41	8.91	9.55
135°	5.16	6.33	7.10	7.55	8.02	8.54	9.85
150°	4.35	5.45	6.42	7.10	7.53	7.96	8.95
Run VMG	3.76	4.72	5.57	6.28	6.90	7.36	8.19
Gybe Angles	144.6°	148.5°	151.4°	158.8°	180.0°	180.0°	180.0°

Class Division Length

CDL = **9.331**

Storm Sails Areas

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

Owner

BOAT	
Name Athena Pirnar File SLO1596	Sail Nr SLO 1596 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 1.326	FF 1.326	SFFP 0.075
FAM 0.980	FA 0.980	SAFP 10.275
W1 70.0	PD1 541.6	WD 11.010
W2 70.0	PD2 535.9	GSA 1.0
W3 70.0	PD3 532.2	RSA 1.0
W4 70.0	PD4 521.8	PLM 9000.0
LCF from stem on CL / on sheer		5.964 / 6.169
Maximum beam station from stem		7.300
RM Measured		113.9kg-m
RM Default		120.3kg-m
Limit of positive stability / Stab.Index		118.1° / 118.7
Freeboard at mast at 4.186		1.109



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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

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



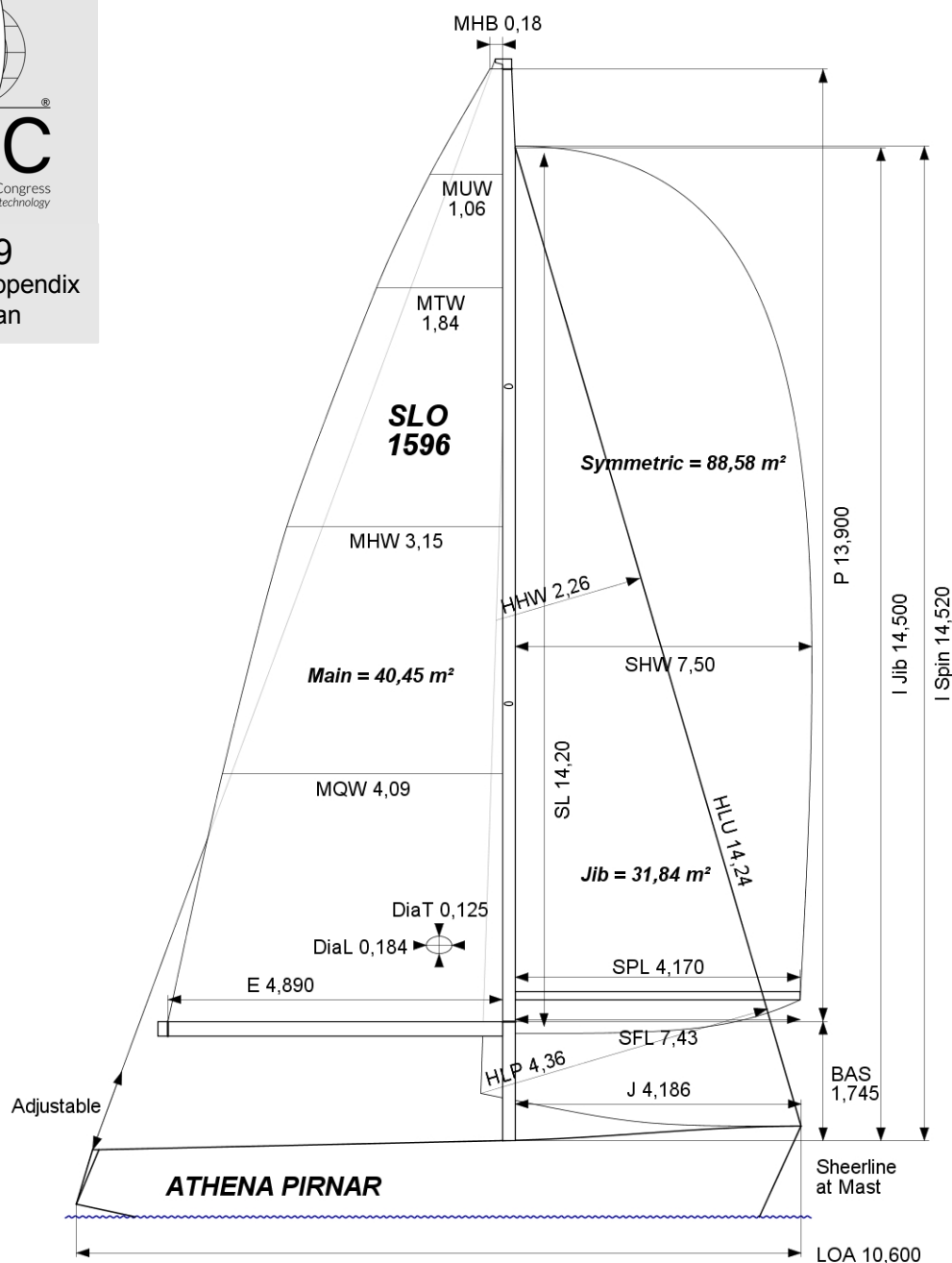
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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.180	1.06	1.84	3.15	4.09	40.45	41.28	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	88.58		SL · (SFL + 4·SHW) / 6	
	14.20	14.20	14.20	7.50	7.43				
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
0.09	0.63	1.19	2.26	3.30	4.36	14.24	31.85	Y		18/09/2018	Carbon	Jib 1 One
0.10	0.62	1.17	2.25	3.29	4.39	14.14	31.58	Y		07/05/2019	Carbon	Jib 2 Elwstroom
0.07	0.47	0.92	1.72	2.75	3.88	14.10	26.07	Y		18/06/2011	Kevlar	Jib 3
0.06	0.35	0.65	1.36	2.17	3.08	9.74	14.10			07/05/2019	Dacron	Jib 4 Štravs

MEASUREMENT INVENTORY				
Measurer SLO03, CRO3				
Date 10/04/2019				
Comment Marina Portorož				
<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>	
E1	Engine	YAN MAR	RCD-2YM15	
<i>Id</i>	<i>Item</i>	<i>Weight 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>
T2	Tank	WATER	PVC	150.0	5.40		0-0 EMPTY
T1	Tank	FUEL	INOX	60.0	6.10		10-0
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>			
B2	Battery	18.4	5.10	55 AH - ENGINE			
B1	Battery	46.8	4.80	120 AH SERVICE - EQUIPEMENTS			



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M	0.18	1.06	1.84	3.15	4.09	40.45		07/05/2019	Elwstroon	Unknown	
M3	0.13	0.90	1.68	3.03	3.98	38.92		11/09/2018	One Sails	Dacron	

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G10	0.09	0.63	1.19	2.26	3.30	4.36	14.24	104%	31.85	Y			18/09/2018	One Sails	Carbon	Jib 1 One
G2E	0.10	0.62	1.17	2.25	3.29	4.39	14.14	105%	31.58	Y			07/05/2019	Elwstroon	Carbon	Jib 2 Elwstroon
G3	0.07	0.47	0.92	1.72	2.75	3.88	14.10	93%	26.07	Y			18/06/2011		Kevlar	Jib 3
G4	0.06	0.35	0.65	1.36	2.17	3.08	9.74	74%	14.10				07/05/2019	Štravs Sails	Dacron	Jib 4 Štravs

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	14.20	14.20	14.20	7.50	7.43	88.59		18/06/2011		Unknown	
S1	14.21	14.21	14.21	7.49	7.42	88.53		22/03/2011	MILLENNIU	Unknown	
S3	14.22	14.22	14.22	7.43	7.33	87.81		07/04/2015		Nylon	

ASYMMETRIC SPINNAKERS (0)

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