

BOAT Name PHANTOM Sail Nr USA 60711	GPH 541.3	HULL Length Overall 13.305m Maximum Beam 4.054m Displacement 9,770kg Draft 2.703m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.106% Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class XP-44 Designer JEPPESEN Builder X-YACHTS Series 01/2010 Age 07/2017 Age Allowance 0.325% Offset File xp44.off - 07/06/2011 20:28:06 Measurement by - 03/05/2020		IMSLS 12.394m VCGD -0.183m Sink 27.67kg/mm RL 10.967m VCGM -0.174m WS 37.95m² LSM0 12.204m Displacement/Length ratio 5.3751



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	530.1			598.1		
Time on Time	1.1319			1.1286		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	607.9	483.0	435.5	792.5	599.9	532.1
Time on Time	1.1103	1.3976	1.5500	0.8517	1.1252	1.2685

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	886.7	736.4	670.6	637.6	621.8	614.8	598.7
52°	576.5	487.1	457.1	445.7	439.6	435.6	430.1
60°	539.9	465.2	441.5	431.9	426.4	422.1	419.2
75°	506.7	449.1	427.5	414.7	407.8	401.5	394.7
90°	502.5	447.4	424.3	408.2	393.8	382.5	370.5
110°	536.2	457.5	424.9	406.4	384.8	365.6	339.8
120°	559.5	463.9	428.0	404.2	382.5	367.4	331.0
135°	626.3	501.8	446.0	419.6	395.8	371.2	321.6
150°	744.8	595.2	501.8	450.3	428.4	410.7	371.0
Run VMG	860.0	687.2	579.4	519.7	492.8	463.5	418.0

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VPP Ver. **2020 1.02**
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Selected Courses							
Windward / Leeward	873.3	711.8	625.0	578.7	557.3	539.1	508.3
Circular Random	734.4	597.6	525.8	485.1	460.1	442.8	417.5
Coastal / Long Distance	872.0	668.0	563.0	503.0	472.1	446.2	400.4
Non Spinnaker	827.4	661.6	571.1	517.7	484.3	461.9	432.3

Crew Weight

Default 915kg
Maximum **915kg**
Minimum* **686kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	589.6	1.0176
Non Spin OSN	573.9	1.0455

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	43.5°	42.0°	40.5°	39.0°	38.3°	38.1°	38.1°
Beat VMG	4.06	4.89	5.37	5.65	5.79	5.86	6.01
52°	6.24	7.39	7.88	8.08	8.19	8.26	8.37
60°	6.67	7.74	8.15	8.34	8.44	8.53	8.59
75°	7.10	8.02	8.42	8.68	8.83	8.97	9.12
90°	7.16	8.05	8.48	8.82	9.14	9.41	9.72
110°	6.71	7.87	8.47	8.86	9.36	9.85	10.60
120°	6.43	7.76	8.41	8.91	9.41	9.80	10.88
135°	5.75	7.17	8.07	8.58	9.10	9.70	11.19
150°	4.83	6.05	7.17	8.00	8.40	8.76	9.70
Run VMG	4.19	5.24	6.21	6.93	7.31	7.77	8.61
Gybe Angles	143.0°	146.0°	147.5°	151.0°	152.0°	175.0°	178.0°

Sails Limitations

Headsails	Spinnakers
7	5

Class Division Length

CDL = **11.676**

Storm Sails Areas

Heavy Weather Jib **44.94**
Storm Jib (JL=11.86) **16.65**
Storm Trysail **18.67**

Owner

BOAT	
Name PHANTOM	Sail Nr USA 60711
File US6411	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Boom Inclining	LCFD	7.053
Flotation date 03/05/2020	SG	1.0110
FFM 1.466	FF 1.482	SFFP 0.744
FAM 1.209	FA 1.211	SAFP 13.259
W1 130.1	PD1 220.6	WD 5.720
W2 130.1	PD2 212.3	GSA 1.0
W3 130.1	PD3 223.4	RSA 1.0
W4 130.1	PD4 216.7	PLM 9000.0
LCF from stem on CL / on sheer	7.418 / 7.676	
Maximum beam station from stem	9.119	
RM Measured	268.6kg-m	
RM Default	268.6kg-m	
Limit of positive stability / Stab.Index	129.2° / 134.6	
Freeboard at mast at 5.266	1.327	



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RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay None Fitted	Runners/Checkstays 0
Carbon Mast Yes	Jib Furler No
Fiber Rigging No	Main Furler No
Non-Circular Rigging No	
Articulated Bowsprit No	
P 17.922	E 5.950 MDT1 0.134 MW 0.275
IG 18.178	J 4.981 MDL1 0.276 GO 0.293
ISP 19.874	SFJ 0.285 MDT2 0.118 BD 0.300
BAS 1.757	SPL 0.208 MDL2 0.208 MWT 266.00
FSD 0.035	TPS 6.361 TL 1.200 MCG 6.500

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD	0.500
Type Folding 2 blades	PBW	0.150
Twin Screw No	PIPA	0.0041
ST1 0.065	ST3 0.180	ST5 0.303
ST2 0.180	ST4 0.110	EDL 2.767

COMMENTS	
Mast-mounted radar	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.21	1.36	2.36	3.86	4.98	64.15	65.42	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	21.55	19.02	20.29	11.35	11.34	191.83	AS · (SFL + 4·SHW) / 6		

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.10	1.06	2.01	3.87	5.61	7.05	19.90	74.48	Y	Yes	20/06/2020	Unknow	
0.10	0.77	1.45	2.70	3.96	5.29	18.01	48.54	Y	No	26/02/2017	Unknow	

MEASUREMENT INVENTORY				
Measurer				
Date 03/05/2020				
Comment				
Internal Ballast total = 0.0				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	Yanmar	4JH-57 57	
Id	Item	Weight Description		

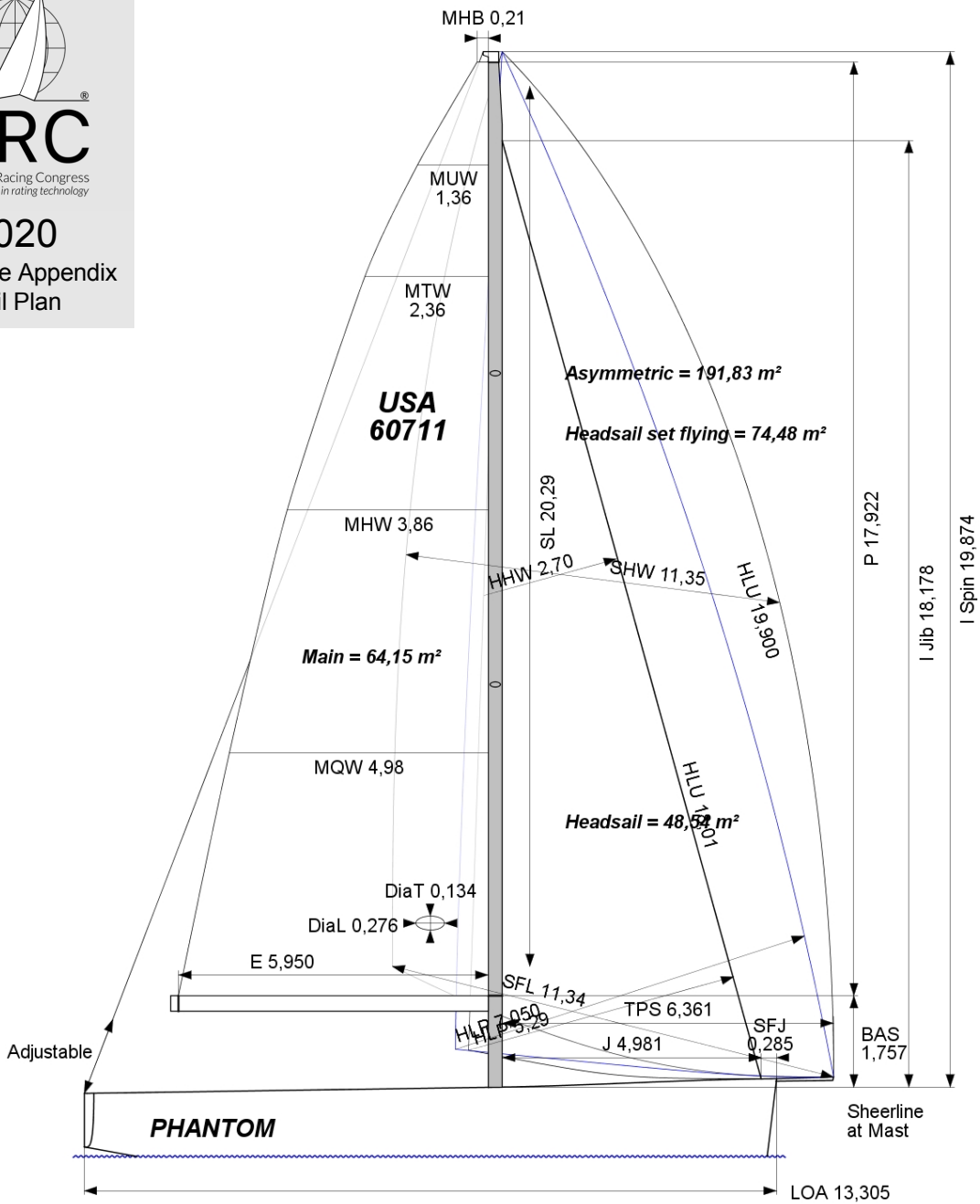
MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
5	Tank Fuel		Alloy	210.0	5.48	0.10	105.0	stbd settee forward	
4	Tank Waste		PVC	45.0	7.68	1.00	0.0	stbd aft head	
3	Tank Water		PVC	380.0	5.58	0.10	0.0	port settee forward	
2	Tank Water		PVC	380.0	6.18	0.10	0.0	port settee aft	
1	Tank Waste		PVC	45.0	4.48	1.00	0.0	port side	
Id	Item	Weight	Distance	VCG Description					
1	Battery	70.0	4.50	0.30 2 x 12V AGM 110 Ah house batteries, stbd					
2	Battery	25.0	9.60	0.10 12 V AGM engine battery, port CL					
4	Misc	15.0	5.80	0.50 Oven/stove in galley					
3	Misc	15.0	7.30	0.30 refrigerator in galley					
2	Misc	40.0	5.10	0.10 HVAC system, port CL					
1	Misc	20.0	1.20	1.20 Anchor windlass					



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
M1	0.21	1.36	2.36	3.86	4.98	64.15		26/08/2019	North	Carbon						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
Code 55	0.10	1.06	2.01	3.87	5.61	7.05	19.90	142%	74.48	Y	Yes		20/06/2020	North	Unknow	
M1	0.10	0.77	1.45	2.70	3.96	5.29	18.01	106%	48.54	Y	No		26/02/2017	North	Unknow	
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (5)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A 1.5	21.55	19.02	20.29	11.35	11.34	191.83	asym		14/01/2020	North	Unknown	A1.5				
A 2	21.83	18.56	20.20	11.40	10.90	190.17	asym		12/07/2018	North	Unknown	A2				
A 4	22.62	18.00	20.31	10.53	10.40	177.79	asym		26/06/2018	North	Unknown	A4				
A 3	20.75	18.55	19.65	8.98	10.75	152.85	asy84		07/07/2017	North	Unknown	A3				
FR 0	18.51	16.90	17.71	6.93	9.14	108.77	asy76		04/04/2020	North	Unknown	FR0 2020				