



International Certificate
2025

KATANA
USA 31452

US Sailing
1 Roger Williams University Way
Bristol, RI 02809
offshore@ussailing.org



APH ToD: **383.0** CDL: **16.122**

APH ToT: **1.5664** CertNo: **US31452**

BOAT

Class **TP 52**
Designer **Judel Vrolik**
Builder **Premiere**
Age date **02/2018**
Series date **01/2018**
Offset file **tp52-USA31452.off**
Data file **US31452**

HULL

Length Overall **15.854 m**
Maximum Beam **4.420 m**
Draft **3.504 m**
Displacement **7,058 kg**
DLR **2.0492**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.228%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.450m**

CREW

Maximum weight **1,140 kg** (declared)
Minimum weight **969 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	97.69	100.47
Headsail Luffed	65.50	65.50
Headsail Flying		
Symmetric		
Asymmetric	266.72	266.72

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **25.42**
Storm Jib **19.55**
Heavy Weather Jib **52.77**

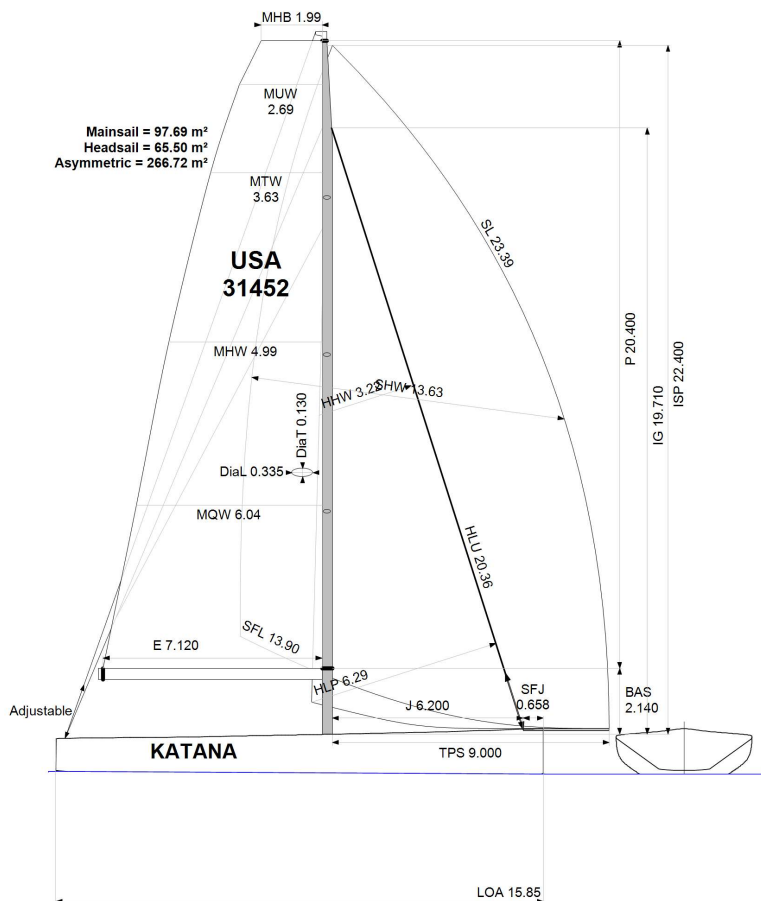
SAIL LIMITS

Headsails **8**
Spinnakers **6**

STABILITY

Righting Moment **420.3 kg·m**
Stability Index **142.3**

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.4°	43.4°	40.5°	38.9°	37.6°	36.8°	36.2°	36.1°	37.2°
Beat VMG	3.73	5.12	6.15	6.66	6.97	7.18	7.34	7.53	7.53
52°	5.91	7.84	9.06	9.58	9.97	10.29	10.55	10.96	11.10
60°	6.40	8.31	9.42	10.03	10.49	10.86	11.16	11.64	11.90
75°	6.75	8.65	9.74	10.63	11.24	11.74	12.17	12.89	13.42
90°	6.64	8.52	9.64	10.69	11.66	12.43	13.07	14.20	15.02
110°	5.82	7.90	9.44	10.49	11.28	12.05	13.33	15.45	17.03
120°	5.61	7.71	9.35	10.62	11.73	12.63	13.53	15.19	17.41
135°	4.80	6.96	8.82	10.05	11.37	12.88	14.38	16.56	18.71
150°	3.97	5.80	7.46	8.77	9.83	11.04	12.47	15.63	19.43
Run VMG	3.44	5.02	6.46	7.59	8.52	9.56	10.80	13.54	16.82
Gybe Angles	140.5°	140.5°	141.3°	146.2°	147.4°	144.7°	144.1°	145.2°	148.0°



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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	965.7	702.5	585.5	540.7	516.3	501.3	490.4	478.3	478.2
52°	608.7	458.9	397.5	375.7	361.0	349.9	341.1	328.6	324.2
60°	562.3	433.1	382.2	358.9	343.2	331.6	322.6	309.4	302.4
75°	533.7	416.2	369.5	338.7	320.2	306.7	295.8	279.4	268.2
90°	542.2	422.4	373.6	336.8	308.7	289.5	275.4	253.6	239.7
110°	619.1	455.6	381.3	343.1	319.2	298.9	270.2	233.0	211.3
120°	641.8	466.9	385.0	338.9	306.9	284.9	266.1	237.0	206.8
135°	750.1	517.4	408.3	358.3	316.5	279.6	250.4	217.4	192.4
150°	906.2	620.8	482.3	410.7	366.1	326.2	288.8	230.3	185.3
Run VMG	1046.4	716.8	557.0	474.2	422.7	376.6	333.4	266.0	214.0
Selected Courses									
Windward / Leeward	1004.9	709.7	571.2	507.5	469.5	438.9	411.9	372.1	346.1
All purpose	747.8	542.9	448.7	403.1	373.9	350.8	330.3	301.1	282.2

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	482.5	1.2434
All purpose	383.0	1.5664

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	495.8	1.2102
Triple Number AP Medium	384.1	1.5620
Triple Number AP High	324.5	1.8492
Triple Number Windward/Leeward Low	670.6	0.8947
Triple Number Windward/Leeward Medium	483.0	1.2422
Triple Number Windward/Leeward High	403.7	1.4861
Single Number Predominant Upwind	431.2	1.3915
Single Number Predominant Reaching	371.3	1.6158
Single Number Predominant Downwind	401.5	1.4944
Predominant Upwind - Low	587.1	1.0220
Predominant Upwind - Low/Med	457.8	1.3105
Predominant Upwind - Medium	406.5	1.4759
Predominant Upwind - Med/High	370.5	1.6195
Predominant Upwind - High	349.7	1.7156
Predominant Downwind Low	607.4	0.9878
Predominant Downwind Low/Med	446.9	1.3425
Predominant Downwind Medium	373.9	1.6047
Predominant Downwind Med/High	313.2	1.9156
Predominant Downwind High	273.3	2.1952
Predominant Reaching Low	527.2	1.1380
Predominant Reaching Low/Med	405.7	1.4789
Predominant Reaching Medium	349.6	1.7164
Predominant Reaching Med/High	304.7	1.9694
Predominant Reaching High	277.5	2.1624
SA/DSPL Upwind	44.06	
SA/DSPL Downwind		98.39

Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	749.1	0.8009
5-Band Windward/Leeward Low/Med	554.1	1.0828
5-Band Windward/Leeward Medium	474.3	1.2649
5-Band Windward/Leeward Med/High	414.7	1.4469
5-Band Windward/Leeward High	374.5	1.6021
Windward/Leeward 60-40 Low	747.1	0.8031
Windward/Leeward 60-40 Low/Med	558.6	1.0740
Windward/Leeward 60-40 Medium	483.8	1.2403
Windward/Leeward 60-40 Med/High	430.2	1.3946
Windward/Leeward 60-40 High	395.7	1.5164
5-Band AP Low	548.0	1.0949
5-Band AP Low/Med	435.4	1.3779
5-Band AP Medium	377.5	1.5896
5-Band AP Med/High	332.5	1.8044
5-Band AP High	302.9	1.9808
5-Band SF Bay Tour - Low	642.4	0.9340
5-Band SF Bay Tour - Low/Med	528.1	1.1362
5-Band SF Bay Tour - Medium	454.7	1.3194
5-Band SF Bay Tour - Med/High	400.7	1.4973
5-Band SF Bay Tour - High	365.8	1.6401
Chicago-Mac Upwind		1.3447
Chicago-Mac All Purpose		1.3906
Chicago-Mac Downwind		1.4241
Bayview-Mac Cove Island		1.0089
Bayview-Mac Shore		1.0185
Harvest Moon Regatta	316.3	1.8971



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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	TP 52	LOA	15.854	VCGD	-1.375
Measurement	29/05/2025	Max. Beam	4.420	VCGM	-1.364
HIN		Draft	3.504	RM Rated (kg-m)	420.3
Plan review		Displacement	7,058	Limit of positive stability(°)	143.5
Hull construction	Carbon	Wetted area	41.14	Stability Index	142.3
Carbon rudder	Yes	IMS L	15.517	Default crew weight	1,239
Light stanchions	Yes	LSM0	15.101	Declared crew weight	1,140
Trim tab	No	Acc. length	14.365		
		Sink (kg/mm)	32.77		

PROPELLER

Propeller Type	Folding 2 blades
Installation	Strut
Twin screw	No
Hydro generator	No
PRD	0.450
EDL	0.640
ST3	0.202
PBW	0.116
ST1	0.056
ST4	0.112
PIPA	0.0040
ST2	0.202
ST5	0.300

RIG

Forestay tension	Aft & Forward	P	20.400	E	7.120	Flying Headsail Foretriangles
Inner stay	None Fitted	IG	19.710	J	6.200	
Mast material	Carbon	ISP	22.400	BAS	2.140	Id ISP TPS
Single headsail furler	No	MDT1	0.130	FSD	0.030	
Mainsail furler	No	MDL1	0.335	SFJ	0.658	1 22.400 9.000
Articulated bowsprit	No	MDT2	0.104	SPL		
Non-circular rigging	No	MDL2	0.150	WPL		
Fiber rigging	Yes	TL	3.250	TPS	9.000	
Adjustable mast foot	Yes	MW	0.287	BD	0.358	
Running backstays	1	GO	0.306	MWT	239.40	
Checkstays	1			MCG	7.510	
Spreaders	3					
Rotating mast	No					

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.747	SAFP	15.550	W1	144.4	PD1	486.4	WD	18.065
Flotation Date	29/05/2025	FFM	1.453	FAM	1.086	W2	144.4	PD2	486.4	PLM	9000.00
Comment	Inshore config, empty, ideal conditions	FF	1.461	FA	1.090	W3	144.4	PD3	486.4	GSA	1.0
		LCFcl	8.884	LCFsh	9.145	W4	144.4	PD4	486.4	RSA	1.0
		SG	1.0000	HBI	1.268					RM	422.3

INVENTORY

BALLAST	<i>Id</i>	<i>Kind</i>	<i>Description</i>	<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	<i>TCG</i>	
	#	Fixed		50				
	Fixed Ballast Total			50				
TANKS	<i>Id</i>		<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	1		PVC Fuel Tank, on CL	Fuel	81	5	9.20	0.00
	Total deductible					4	9.20	0.00
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	
	3		Battery Starter Battery, Super B SB12V25P-SC		5	9.60	0.00	
	2		Battery House Battery, Thunder Sky Winston 12V 90Ah		15	9.50	0.00	
	1		Engine Yanmar 4JH57					
	Total deductible					0		



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MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
MN1-16	1.99	2.69	3.63	4.99	6.04	97.69	03/02/2025	OSP0606-001
MN2-17	2.00	2.63	3.56	4.96	6.10	97.44	04/02/2025	OSP6060-15

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-1	0.15	0.96	1.73	3.22	4.72	6.29	20.36	Yes	No	65.50	26/02/2025	
J1-25	0.12	0.98	1.75	3.18	4.71	6.26	20.26	Yes	No	64.93	31/01/2025	OPS6060-003
SS-23	0.08	0.82	1.58	3.10	4.61	6.16	18.40	No	Inner	57.02	12/04/2024	OSP5567-013

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A4-A	25.48	21.30	23.39	13.63	13.90	98%	266.72	04/04/2024	A40A-2020
A2-1	25.05	21.25	23.15	13.72	14.20	97%	266.53	04/04/2024	
A1.5-2	25.12	21.62	23.37	13.23	14.18	93%	261.35	26/02/2025	



International Certificate
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MOCKINGBIRD
USA 5294

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



APH ToD: **382.4** CDL: **16.127**

APH ToT: **1.5690** CertNo: **US7394**

BOAT

Class **TP 52**
Designer **BOTIN**
Builder **KING MARINE**
Age date **05/2015**
Series date **05/2015**
Offset file **TP52-USA5294b.off**
Data file **US6346**

HULL

Length Overall **15.848 m**
Maximum Beam **4.428 m**
Draft **3.509 m**
Displacement **6,971 kg**
DLR **2.0323**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.325%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.400m**

CREW

Maximum weight **1,290 kg** (declared)
Minimum weight **1,097 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	98.35	101.11
Headsail Luffed	65.73	65.73
Headsail Flying		
Symmetric		
Asymmetric	272.53	272.53

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **25.40**
Storm Jib **19.45**
Heavy Weather Jib **52.50**

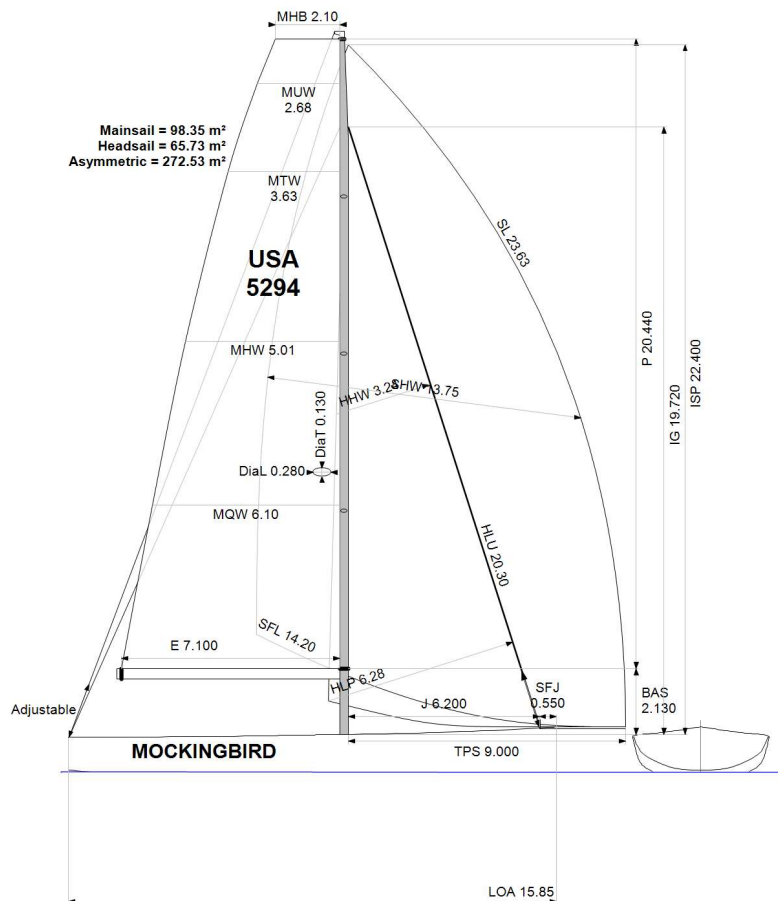
SAIL LIMITS

Headsails **8**
Spinnakers **6**

STABILITY

Righting Moment **407.6 kg·m**
Stability Index **140.3**

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.3°	43.3°	40.3°	38.6°	37.4°	36.7°	36.1°	36.1°	36.7°
Beat VMG	3.79	5.18	6.18	6.67	6.98	7.18	7.34	7.52	7.51
52°	6.01	7.91	9.07	9.58	9.97	10.28	10.54	10.94	11.06
60°	6.49	8.37	9.43	10.03	10.48	10.84	11.15	11.62	11.85
75°	6.83	8.71	9.76	10.63	11.23	11.72	12.14	12.85	13.34
90°	6.73	8.60	9.67	10.70	11.66	12.41	13.04	14.12	14.91
110°	5.88	7.95	9.45	10.47	11.25	12.07	13.33	15.40	16.91
120°	5.68	7.77	9.38	10.63	11.70	12.61	13.49	15.16	17.37
135°	4.84	7.01	8.86	10.08	11.41	12.90	14.37	16.53	18.69
150°	4.00	5.84	7.51	8.80	9.86	11.07	12.53	15.69	19.53
Run VMG	3.47	5.06	6.51	7.62	8.54	9.59	10.85	13.59	16.91
Gybe Angles	140.6°	140.6°	141.3°	146.2°	147.4°	144.2°	144.1°	145.7°	148.4°



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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	950.2	695.4	582.9	539.7	515.9	501.2	490.6	478.4	479.4
52°	599.0	455.0	397.0	375.8	361.2	350.2	341.5	329.1	325.4
60°	554.6	430.0	381.9	359.0	343.5	332.0	323.0	309.9	303.8
75°	527.4	413.3	368.9	338.7	320.6	307.3	296.5	280.3	269.9
90°	535.2	418.8	372.4	336.5	308.9	290.1	276.1	254.9	241.4
110°	612.0	452.7	380.9	343.8	319.9	298.2	270.1	233.8	212.9
120°	633.7	463.3	383.9	338.7	307.6	285.6	266.8	237.5	207.2
135°	743.4	513.7	406.1	357.1	315.5	279.1	250.6	217.8	192.6
150°	899.5	616.1	479.1	409.3	365.2	325.1	287.3	229.4	184.4
Run VMG	1038.6	711.4	553.3	472.6	421.7	375.4	331.8	264.9	212.9
Selected Courses									
Windward / Leeward	992.9	703.4	568.1	506.1	468.8	438.3	411.2	371.6	346.1
All purpose	738.5	538.3	446.9	402.5	373.7	350.6	330.2	301.4	283.0

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	481.2	1.2469
All purpose	382.4	1.5690

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	492.6	1.2180
Triple Number AP Medium	383.7	1.5639
Triple Number AP High	324.5	1.8490
Triple Number Windward/Leeward Low	665.4	0.9017
Triple Number Windward/Leeward Medium	481.9	1.2451
Triple Number Windward/Leeward High	403.1	1.4884
Single Number Predominant Upwind	430.0	1.3953
Single Number Predominant Reaching	370.3	1.6201
Single Number Predominant Downwind	400.1	1.4997
Predominant Upwind - Low	581.5	1.0318
Predominant Upwind - Low/Med	456.2	1.3151
Predominant Upwind - Medium	406.2	1.4772
Predominant Upwind - Med/High	370.6	1.6189
Predominant Upwind - High	350.2	1.7135
Predominant Downwind Low	602.6	0.9958
Predominant Downwind Low/Med	445.0	1.3484
Predominant Downwind Medium	373.1	1.6082
Predominant Downwind Med/High	312.9	1.9174
Predominant Downwind High	273.3	2.1950
Predominant Reaching Low	522.7	1.1478
Predominant Reaching Low/Med	404.2	1.4843
Predominant Reaching Medium	349.2	1.7183
Predominant Reaching Med/High	304.9	1.9678
Predominant Reaching High	278.1	2.1576
SA/DSPL Upwind	44.67	
SA/DSPL Downwind		100.98

Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	742.3	0.8083
5-Band Windward/Leeward Low/Med	551.5	1.0879
5-Band Windward/Leeward Medium	473.3	1.2676
5-Band Windward/Leeward Med/High	414.0	1.4494
5-Band Windward/Leeward High	374.1	1.6040
Windward/Leeward 60-40 Low	740.0	0.8108
Windward/Leeward 60-40 Low/Med	556.1	1.0790
Windward/Leeward 60-40 Medium	482.8	1.2427
Windward/Leeward 60-40 Med/High	429.7	1.3964
Windward/Leeward 60-40 High	395.4	1.5175
5-Band AP Low	543.5	1.1040
5-Band AP Low/Med	433.9	1.3828
5-Band AP Medium	377.1	1.5912
5-Band AP Med/High	332.5	1.8046
5-Band AP High	303.2	1.9789
5-Band SF Bay Tour - Low	637.2	0.9417
5-Band SF Bay Tour - Low/Med	525.7	1.1414
5-Band SF Bay Tour - Medium	453.9	1.3220
5-Band SF Bay Tour - Med/High	400.3	1.4990
5-Band SF Bay Tour - High	365.6	1.6411
Chicago-Mac Upwind		1.3489
Chicago-Mac All Purpose		1.3955
Chicago-Mac Downwind		1.4296
Bayview-Mac Cove Island		1.0168
Bayview-Mac Shore		1.0266
Harvest Moon Regatta	316.2	1.8977



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USA



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	TP 52	LOA	15.848	VCGD	-1.316
Measurement	17/05/2024	Max. Beam	4.428	VCGM	-1.309
HIN		Draft	3.509	RM Rated (kg-m)	407.6
Plan review		Displacement	6,971	Limit of positive stability(°)	141.5
Hull construction	Carbon	Wetted area	40.32	Stability Index	140.3
Carbon rudder	Yes	IMS L	15.496	Default crew weight	1,237
Light stanchions	Yes	LSM0	15.080	Declared crew weight	1,290
Trim tab	No	Acc. length	14.391		
		Sink (kg/mm)	32.22		

PROPELLER

Propeller Type	Folding 2 blades
Installation	Strut
Twin screw	No
Hydro generator	No
PRD	0.400
EDL	0.900
ST3	0.180
PBW	0.140
ST1	0.042
ST4	0.112
PIPA	0.0038
ST2	0.180
ST5	0.300

RIG

Forestay tension	Aft & Forward	P	20.440	E	7.100	Flying Headsail Foretriangles
Inner stay	None Fitted	IG	19.720	J	6.200	
Mast material	Carbon	ISP	22.400	BAS	2.130	Id ISP TPS
Single headsail furler	No	MDT1	0.130	FSD	0.036	
Mainsail furler	No	MDL1	0.280	SFJ	0.550	1 22.400 9.000
Articulated bowsprit	No	MDT2	0.100	SPL		
Non-circular rigging	No	MDL2	0.153	WPL		
Fiber rigging	Yes	TL	3.220	TPS	9.000	
Adjustable mast foot	Yes	MW	0.279	BD	0.340	
Running backstays	1	GO	0.279	MWT	278.60	
Checkstays				MCG	7.596	
Spreaders	3					
Rotating mast	No					

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.197	SAFP	15.832	W1	139.5	PD1	481.8	WD	17.999
Flotation Date	17/05/2024	FFM	1.461	FAM	1.118	W2	139.5	PD2	481.8	PLM	9000.00
Comment	Inshore Mode, Empty, Ideal Conditions	FF	1.470	FA	1.122	W3	139.5	PD3	481.8	GSA	1.0
		LCFcl	8.813	LCFsh	9.074	W4	139.5	PD4	481.8	RSA	1.0
		SG	1.0000	HBI	1.235					RM	410.4

INVENTORY

TANKS	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>	
	1	PVC Fuel tank centerline	Fuel	84	25	8.05	0.00	
			Total deductible		21	8.05	0.00	
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	
	4	Miscellaneous	Enerpac Mast Jack		6	7.15	0.20	
	2	Battery	Starter Battery, Centerline		5	9.90	-0.25	
	1	Battery	12.8V 100Ah LiFePO4 House Battery, Port TCG=0.1, Installed 2022		14	9.95	-0.25	
	3	Engine	Yanmar 4JH5E, 50hp, Installed 2015		201	9.05	0.00	
	#	Deductible	mast adjustment		4	6.26	7.60	
				Total deductible		4	6.26	7.60



International Certificate
2025

MOCKINGBIRD
USA 5294

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
LM-1	2.10	2.68	3.63	5.01	6.10	98.35	01/05/2024	Remeasure of 2022 main

HEADSAIL

<i>Id</i>	<i>HMB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-5	0.15	0.98	1.77	3.24	4.76	6.28	20.30	Yes	No	65.73	13/05/2024	
J2-2	0.15	0.99	1.78	3.25	4.73	6.27	20.29	Yes	No	65.63	13/05/2024	2024
SS-2	0.08	0.79	1.54	3.06	4.58	6.10	18.47	No	Inner	56.58	12/04/2024	

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A2-3	25.48	21.78	23.63	13.75	14.20	97%	272.53	06/02/2024	OUS156279-002
A1.5-6	25.43	21.83	23.63	13.43	14.29	94%	267.85	07/02/2024	OUS156279-001

APH ToD: **383.0** CDL: **16.226**

APH ToT: **1.5666** CertNo: **US6322**

BOAT

Class **Pac 52**
Designer **BOTIN PARTNERS**
Builder
Age date **06/2015**
Series date **01/2015**
Offset file **PAC52-USA5252.off**
Data file **US6322**

HULL

Length Overall **15.881 m**
Maximum Beam **4.430 m**
Draft **3.613 m**
Displacement **7,079 kg**
DLR **2.0346**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.325%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.410m**

CREW

Maximum weight **1,445 kg** (declared)
Minimum weight **1,228 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	99.22	101.76
Headsail Luffed	68.61	68.61
Headsail Flying		
Symmetric		
Asymmetric	270.37	270.37

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **25.98**
Storm Jib **20.24**
Heavy Weather Jib **54.64**

SAIL LIMITS

Headsails **8**
Spinnakers **6**

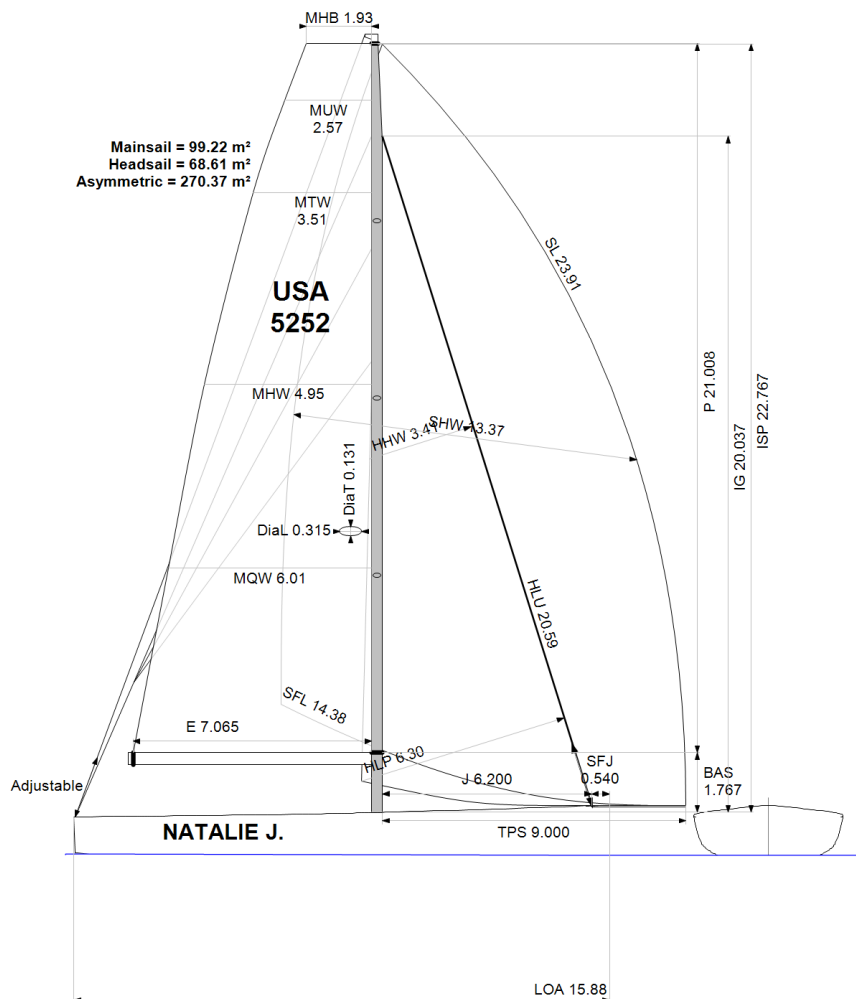
STABILITY

Righting Moment **414.6 kg·m**
Stability Index **139.9**

COMMENTS

IS 2025

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.2°	43.2°	40.2°	38.5°	37.2°	36.4°	36.0°	35.8°	36.9°
Beat VMG	3.77	5.17	6.19	6.69	7.00	7.21	7.37	7.56	7.56
52°	5.97	7.89	9.07	9.60	9.99	10.31	10.57	10.97	11.12
60°	6.45	8.34	9.42	10.04	10.50	10.87	11.17	11.64	11.90
75°	6.79	8.67	9.74	10.62	11.24	11.73	12.16	12.86	13.37
90°	6.69	8.56	9.63	10.66	11.63	12.40	13.04	14.14	14.95
110°	5.85	7.92	9.43	10.49	11.28	12.03	13.24	15.37	16.94
120°	5.64	7.72	9.34	10.60	11.72	12.62	13.50	15.16	17.30
135°	4.81	6.97	8.81	10.01	11.31	12.79	14.30	16.54	18.71
150°	3.99	5.81	7.46	8.74	9.78	10.95	12.36	15.51	19.35
Run VMG	3.46	5.03	6.46	7.57	8.47	9.49	10.71	13.43	16.75
Gybe Angles	140.6°	140.6°	141.5°	146.5°	147.8°	144.7°	144.2°	144.8°	147.9°



International Certificate
2025

NATALIE J.
USA 5252

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	954.9	696.6	582.0	537.9	514.0	499.1	488.5	475.9	476.5
52°	603.0	456.4	396.7	375.2	360.5	349.3	340.7	328.2	323.9
60°	558.3	431.5	382.0	358.6	343.0	331.3	322.4	309.3	302.6
75°	530.2	415.0	369.8	338.9	320.3	306.9	296.1	279.9	269.2
90°	538.0	420.8	373.8	337.7	309.4	290.3	276.2	254.6	240.8
110°	615.5	454.8	381.8	343.1	319.3	299.3	271.9	234.2	212.5
120°	638.8	466.1	385.5	339.7	307.2	285.3	266.6	237.4	208.1
135°	747.8	516.8	408.7	359.7	318.2	281.4	251.8	217.6	192.5
150°	902.0	619.6	482.7	411.8	368.0	328.6	291.2	232.2	186.1
Run VMG	1041.6	715.5	557.4	475.5	424.9	379.5	336.2	268.1	214.9
Selected Courses									
Windward / Leeward	997.1	706.0	569.7	506.7	469.5	439.3	412.4	372.0	345.7
All purpose	742.3	540.5	448.1	403.0	374.0	351.1	330.8	301.3	282.4

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	482.1	1.2444
All purpose	383.0	1.5666

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	494.3	1.2138
Triple Number AP Medium	384.2	1.5619
Triple Number AP High	324.8	1.8472
Triple Number Windward/Leeward Low	667.6	0.8987
Triple Number Windward/Leeward Medium	482.7	1.2430
Triple Number Windward/Leeward High	404.0	1.4852
Single Number Predominant Upwind	430.1	1.3949
Single Number Predominant Reaching	371.4	1.6155
Single Number Predominant Downwind	401.9	1.4927
Predominant Upwind - Low	583.6	1.0282
Predominant Upwind - Low/Med	456.6	1.3140
Predominant Upwind - Medium	406.0	1.4778
Predominant Upwind - Med/High	370.1	1.6210
Predominant Upwind - High	349.2	1.7180
Predominant Downwind Low	605.5	0.9909
Predominant Downwind Low/Med	447.1	1.3420
Predominant Downwind Medium	374.9	1.6003
Predominant Downwind Med/High	314.4	1.9083
Predominant Downwind High	274.0	2.1894
Predominant Reaching Low	525.1	1.1425
Predominant Reaching Low/Med	405.7	1.4791
Predominant Reaching Medium	350.1	1.7136
Predominant Reaching Med/High	305.3	1.9653
Predominant Reaching High	277.9	2.1592

SA/DSPL Upwind	45.23	SA/DSPL Downwind	99.59
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Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	745.0	0.8054
5-Band Windward/Leeward Low/Med	552.8	1.0854
5-Band Windward/Leeward Medium	474.1	1.2654
5-Band Windward/Leeward Med/High	415.0	1.4459
5-Band Windward/Leeward High	374.4	1.6024
Windward/Leeward 60-40 Low	742.5	0.8081
Windward/Leeward 60-40 Low/Med	556.9	1.0774
Windward/Leeward 60-40 Medium	483.1	1.2419
Windward/Leeward 60-40 Med/High	430.0	1.3952
Windward/Leeward 60-40 High	395.2	1.5183
5-Band AP Low	545.9	1.0991
5-Band AP Low/Med	434.9	1.3797
5-Band AP Medium	377.5	1.5892
5-Band AP Med/High	332.9	1.8023
5-Band AP High	303.1	1.9793
5-Band SF Bay Tour - Low	639.4	0.9384
5-Band SF Bay Tour - Low/Med	526.7	1.1391
5-Band SF Bay Tour - Medium	454.4	1.3204
5-Band SF Bay Tour - Med/High	400.8	1.4971
5-Band SF Bay Tour - High	365.5	1.6414
Chicago-Mac Upwind		1.3483
Chicago-Mac All Purpose		1.3920
Chicago-Mac Downwind		1.4230
Bayview-Mac Cove Island		1.0132
Bayview-Mac Shore		1.0230
Harvest Moon Regatta	317.0	1.8928



International Certificate
2025

NATALIE J.
USA 5252

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Pac 52	LOA	15.881	VCGD	-1.300
Measurement	16/05/2024	Max. Beam	4.430	VCGM	-1.301
HIN		Draft	3.613	RM Rated (kg-m)	414.6
Plan review		Displacement	7,079	Limit of positive stability(°)	141.0
Hull construction	Carbon	Wetted area	40.94	Stability Index	139.9
Carbon rudder	Yes	IMS L	15.570	Default crew weight	1,245
Light stanchions	Yes	LSM0	15.152	Declared crew weight	1,445
Trim tab	No	Acc. length	14.398		
		Sink (kg/mm)	32.60		

PROPELLER

Propeller Type	Folding 2 blades						
Installation	Strut	PRD	0.410	EDL	1.200	ST3	0.160
Twin screw	No	PBW	0.110	ST1	0.045	ST4	0.086
Hydro generator	No	PIPA	0.0026	ST2	0.160	ST5	0.310

RIG

Forestay tension	Aft & Forward	P	21.008	E	7.065
Inner stay	None Fitted	IG	20.037	J	6.200
Mast material	Carbon	ISP	22.767	BAS	1.767
Single headsail furler	No	MDT1	0.131	FSD	0.040
Mainsail furler	No	MDL1	0.315	SFJ	0.540
Articulated bowsprit	No	MDT2	0.110	SPL	0.000
Non-circular rigging	No	MDL2	0.181	WPL	
Fiber rigging	Yes	TL	2.878	TPS	9.000
Adjustable mast foot	Yes	MW	0.290	BD	0.360
Running backstays	1	GO	0.315	MWT	260.50
Checkstays	2			MCG	8.195
Spreaders	3				
Rotating mast	No				

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.698	SAFP	15.839	W1	139.5	PD1	472.0	WD	17.945
Flotation Date	16/05/2024	FFM	1.451	FAM	1.115	W2	139.5	PD2	472.0	PLM	9000.00
Comment	Empty, ideal conditions	FF	1.459	FA	1.119	W3	139.5	PD3	472.0	GSA	1.0
		LCFcl	8.863	LCFsh	9.121	W4	139.5	PD4	472.0	RSA	1.0
		SG	1.0000	HBI	1.266					RM	417.7

INVENTORY

TANKS	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	1	PVC fuel tank on CL	Fuel	83	48	10.35	0.00
			Total deductible		15	10.35	0.00
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>
	4	Miscellaneous	2X Pipe berths, midship		6	8.64	0.40
	3	Battery	Magnavolt start battery, centerline, installed 2020			9.75	-0.20
	2	Battery	12V AGM House battery, centerline, installed 2020			9.75	-0.20
	1	Engine	Lombardini LDW1404M		133	9.05	0.00
				Total deductible		0	



International Certificate
2025

NATALIE J.
USA 5252

US SAILING
1 ROGER WILLIAMS UNI WAY
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USA



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
Q Mn 25	1.93	2.57	3.51	4.95	6.01	99.22	06/02/2025	204073
MO-24	1.90	2.54	3.47	4.91	6.07	99.05	21/05/2024	2844-6
AP Main	1.89	2.54	3.46	4.90	6.05	98.84	21/05/2024	2844-5

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1-3 Q	0.13	1.04	1.85	3.41	4.91	6.30	20.59	Yes	No	68.61	27/03/2025	200000
J1.5-1 Q	0.13	1.03	1.84	3.40	4.91	6.30	20.54	Yes	No	68.34	27/03/2025	200001
J1.5-23	0.10	1.06	1.84	3.38	4.83	6.29	20.36	Yes	No	67.28	20/05/2024	2044-4
J1-22	0.02	1.06	1.86	3.37	4.86	6.24	20.38	Yes	No	67.25	20/05/2024	2084-3
J2 2022	0.14	1.05	1.83	3.29	4.76	6.20	20.37	Yes	No	66.28	29/03/2022	QJ228322
SS-24	0.07	0.91	1.77	3.37	4.83	6.13	18.73	No	Inner	60.80	20/05/2024	2084-2
IGS-23	0.50	1.10	1.65	2.22	2.53	2.69	11.35	Yes	Inner	21.98	20/05/2024	2084-1

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A2-24	25.99	21.82	23.91	13.37	14.38	93%	270.37	24/05/2024	193096
A 1.5-1 2021	26.16	22.00	24.08	13.05	13.88	94%	265.20	03/06/2022	150615
A2-1	26.06	21.58	23.82	13.17	13.80	95%	263.93	07/06/2022	150616



International Certificate
2025

Prospector
USA 52052

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



APH ToD: **382.4** CDL: **16.060**

APH ToT: **1.5692** CertNo: **US5205**

BOAT

Class **TP 52**
Designer **BOTIN**
Builder **Longitude Cero**
Age date **11/2011**
Series date **11/2011**
Offset file **TP52-USA95.off**
Data file **USA52052**

HULL

Length Overall **15.859 m**
Maximum Beam **4.424 m**
Draft **3.758 m**
Displacement **7,190 kg**
DLR **2.2377**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.455%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.460m**

CREW

Maximum weight **1,225 kg** (declared)
Minimum weight **1,041 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	100.11	102.69
Headsail Luffed	66.78	66.78
Headsail Flying		
Symmetric		
Asymmetric	271.58	271.58

(2 asymmetric(s) with SHW/SFL < 85%)

STORM SAIL AREAS (m²)

Trysail **26.45**
Storm Jib **20.38**
Heavy Weather Jib **55.02**

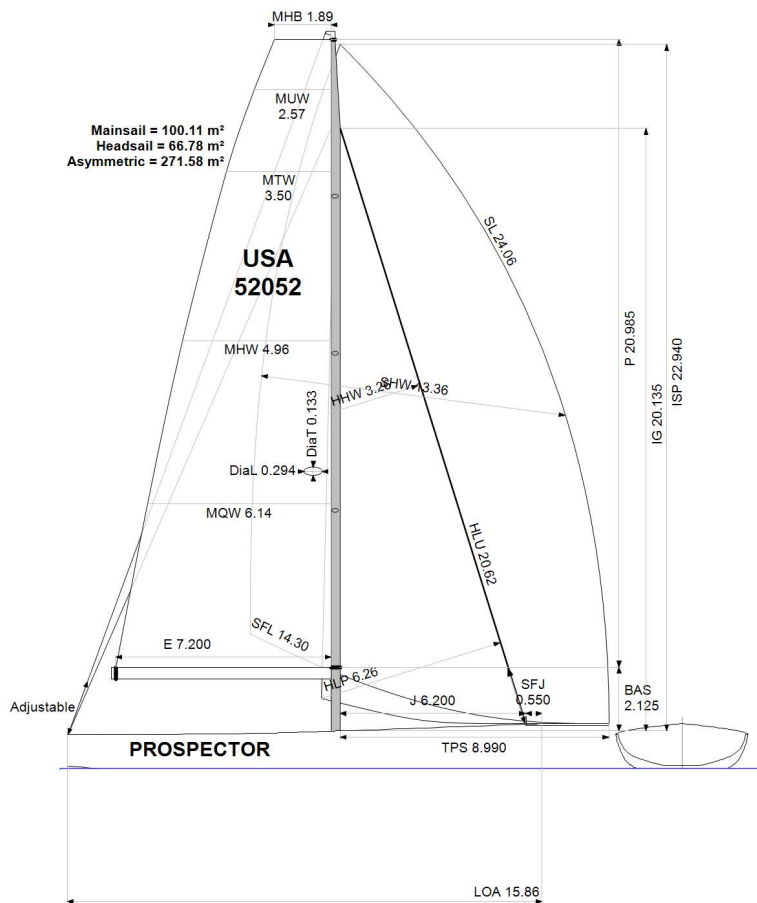
SAIL LIMITS

Headsails **8**
Spinnakers **6**

STABILITY

Righting Moment **406.0 kg·m**
Stability Index **142.3**

The owner and any other person in charge is responsible
that boat is complying with her certificate in accordance
with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.0°	43.0°	39.9°	38.2°	37.0°	36.2°	35.6°	35.4°	36.3°
Beat VMG	3.85	5.23	6.20	6.69	7.00	7.20	7.36	7.53	7.53
52°	6.09	7.96	9.07	9.56	9.93	10.23	10.48	10.85	10.98
60°	6.55	8.41	9.41	9.98	10.41	10.76	11.05	11.49	11.73
75°	6.86	8.72	9.73	10.55	11.12	11.59	12.00	12.67	13.16
90°	6.76	8.61	9.64	10.62	11.52	12.26	12.86	13.92	14.70
110°	6.34	8.30	9.60	10.72	11.72	12.65	13.44	15.17	16.72
120°	5.88	7.90	9.36	10.57	11.68	12.90	13.98	15.83	17.31
135°	4.91	7.05	8.85	10.02	11.28	12.73	14.19	16.47	19.47
150°	4.06	5.89	7.53	8.78	9.80	10.94	12.32	15.47	19.38
Run VMG	3.51	5.10	6.52	7.60	8.49	9.48	10.67	13.40	16.79
Gybe Angles	140.8°	140.8°	142.1°	146.9°	148.3°	145.3°	144.5°	145.0°	148.4°



International Certificate
2025

Prospector
USA 52052

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	934.6	688.3	580.4	538.0	514.5	499.8	489.3	477.8	478.1
52°	591.3	452.0	397.0	376.6	362.6	352.0	343.6	331.7	327.7
60°	549.6	428.1	382.4	360.6	345.7	334.6	325.9	313.2	306.8
75°	525.0	412.7	369.8	341.1	323.7	310.6	300.0	284.1	273.5
90°	532.7	418.3	373.6	339.1	312.5	293.8	279.9	258.6	244.9
110°	568.2	433.5	374.9	335.8	307.2	284.7	267.9	237.3	215.3
120°	612.0	455.9	384.6	340.7	308.3	279.0	257.6	227.4	208.0
135°	732.7	510.4	406.6	359.2	319.0	282.7	253.7	218.6	184.9
150°	887.1	611.2	478.1	410.1	367.2	329.0	292.1	232.7	185.7
Run VMG	1024.4	705.8	552.0	473.5	424.0	379.9	337.3	268.7	214.5
Selected Courses									
Windward / Leeward	977.9	697.0	566.2	505.7	469.3	439.9	413.3	373.3	346.3
All purpose	724.9	532.8	445.8	402.5	373.9	350.9	331.5	302.9	283.6

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	481.4	1.2464
All purpose	382.4	1.5692

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	489.3	1.2262
Triple Number AP Medium	383.7	1.5637
Triple Number AP High	325.6	1.8425
Triple Number Windward/Leeward Low	660.3	0.9086
Triple Number Windward/Leeward Medium	482.2	1.2444
Triple Number Windward/Leeward High	404.9	1.4817
Single Number Predominant Upwind	430.0	1.3954
Single Number Predominant Reaching	371.6	1.6145
Single Number Predominant Downwind	401.0	1.4961
Predominant Upwind - Low	576.7	1.0404
Predominant Upwind - Low/Med	455.7	1.3166
Predominant Upwind - Medium	407.1	1.4737
Predominant Upwind - Med/High	372.2	1.6120
Predominant Upwind - High	351.6	1.7067
Predominant Downwind Low	597.9	1.0036
Predominant Downwind Low/Med	445.1	1.3479
Predominant Downwind Medium	375.4	1.5983
Predominant Downwind Med/High	316.1	1.8981
Predominant Downwind High	275.2	2.1802
Predominant Reaching Low	519.5	1.1549
Predominant Reaching Low/Med	404.9	1.4817
Predominant Reaching Medium	351.6	1.7066
Predominant Reaching Med/High	307.8	1.9494
Predominant Reaching High	280.1	2.1422
SA/DSPL Upwind	44.51	
SA/DSPL Downwind		99.13

Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	734.9	0.8164
5-Band Windward/Leeward Low/Med	549.8	1.0912
5-Band Windward/Leeward Medium	473.8	1.2664
5-Band Windward/Leeward Med/High	415.8	1.4430
5-Band Windward/Leeward High	375.5	1.5977
Windward/Leeward 60-40 Low	732.5	0.8191
Windward/Leeward 60-40 Low/Med	554.2	1.0827
Windward/Leeward 60-40 Medium	482.9	1.2425
Windward/Leeward 60-40 Med/High	430.9	1.3925
Windward/Leeward 60-40 High	396.4	1.5136
5-Band AP Low	537.2	1.1168
5-Band AP Low/Med	432.8	1.3865
5-Band AP Medium	377.2	1.5905
5-Band AP Med/High	333.6	1.7988
5-Band AP High	304.5	1.9703
5-Band SF Bay Tour - Low	632.0	0.9494
5-Band SF Bay Tour - Low/Med	524.1	1.1448
5-Band SF Bay Tour - Medium	454.1	1.3213
5-Band SF Bay Tour - Med/High	401.4	1.4948
5-Band SF Bay Tour - High	366.4	1.6376
Chicago-Mac Upwind		1.3499
Chicago-Mac All Purpose		1.3946
Chicago-Mac Downwind		1.4274
Bayview-Mac Cove Island		1.0240
Bayview-Mac Shore		1.0337
Harvest Moon Regatta	316.7	1.8947



International Certificate
2025

Prospector
USA 52052

US SAILING
1 ROGER WILLIAMS UNI WAY
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USA



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	TP 52	LOA	15.859	VCGD	-1.333
Measurement	09/05/2023	Max. Beam	4.424	VCGM	-1.331
HIN		Draft	3.758	RM Rated (kg-m)	406.0
Plan review		Displacement	7,190	Limit of positive stability(°)	143.6
Hull construction	Carbon	Wetted area	40.03	Stability Index	142.3
Carbon rudder	Yes	IMS L	15.273	Default crew weight	1,199
Light stanchions	Yes	LSM0	14.755	Declared crew weight	1,225
Trim tab	No	Acc. length	14.378		
		Sink (kg/mm)	31.66		

PROPELLER

Propeller Type	Folding 2 blades				
Installation	Strut	PRD	0.460	EDL	1.309
Twin screw	No	PBW	0.110	ST1	0.056
Hydro generator	No	PIPA	0.0042	ST2	0.204
				ST3	0.204
				ST4	0.114
				ST5	0.305

RIG

Forestay tension	Aft & Forward	P	20.985	E	7.200	Flying Headsail Foretriangles
Inner stay	None Fitted	IG	20.135	J	6.200	
Mast material	Carbon	ISP	22.940	BAS	2.125	Id ISP TPS
Single headsail furler	No	MDT1	0.133	FSD	0.036	
Mainsail furler	No	MDL1	0.294	SFJ	0.550	1 22.940 8.990
Articulated bowsprit	No	MDT2	0.096	SPL	0.000	
Non-circular rigging	No	MDL2	0.137	WPL		
Fiber rigging	Yes	TL	2.980	TPS	8.990	
Adjustable mast foot	Yes	MW	0.294	BD	0.400	
Running backstays	2	GO	0.310	MWT	240.00	
Checkstays				MCG	7.580	
Spreaders	3					
Rotating mast	No					

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.580	SAFP	15.831	W1	133.0	PD1	460.1	WD	17.990
Flotation Date	09/05/2023	FFM	1.491	FAM	1.144	W2	133.0	PD2	460.1	PLM	9000.00
		FF	1.493	FA	1.148	W3	133.0	PD3	460.1	GSA	1.0
		LCFcl	8.584	LCFsh	8.848	W4	133.0	PD4	460.1	RSA	1.0
		SG	1.0190	HBI	1.270					RM	409.5

INVENTORY

TANKS	Id	Description	Sp.Wght	Capacity	Condition	LCG	VCG
	1	CL fuel tank	Fuel	45	45	10.45	-0.15
			Total deductible		38	10.45	-0.15



International Certificate
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Prospector
USA 52052

US SAILING
1 ROGER WILLIAMS UNI WAY
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MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
MN-25	1.89	2.57	3.50	4.96	6.14	100.11	20/03/2025	OUS160554-001
MN-23	1.80	2.56	3.52	4.96	6.14	100.05	27/10/2023	OUS154252-001
M-12	1.77	2.50	3.48	4.91	6.09	99.17	02/03/2023	

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-25	0.15	0.99	1.76	3.26	4.76	6.26	20.62	Yes	No	66.78	10/03/2025	OUS160554-003
J2-23	0.15	0.97	1.75	3.23	4.74	6.27	20.57	Yes	No	66.34	13/10/2023	OUS154252-003
J1.5-C	0.12	0.96	1.74	3.19	4.69	6.24	20.48	Yes	No	65.44	02/03/2023	J1.5-C

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A1.5-25	25.91	22.20	24.06	13.36	14.30	93%	271.58	21/02/2025	OUS160554-005
A2-22	25.36	21.76	23.56	13.47	13.80	98%	265.76	02/03/2023	OUK 401923-002
A2-23 rm	25.78	21.25	23.52	13.48	13.41	101%	263.88	26/04/2024	OUS154252-005 remeasure
A-0	24.29	22.44	23.37	8.48	11.30	75%	176.09	30/05/2023	OUS 130765-003
FR-0	21.89	19.48	20.69	7.58	10.09	75%	139.31	30/05/2023	OUS 130765002



International Certificate
2025

WINDQUEST
USA 52015

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



APH ToD: **383.3** CDL: **16.125**

APH ToT: **1.5655** CertNo: **US7395**

BOAT

Class **TP 52**
Designer **BOTIN**
Builder **N/A**
Age date **01/2015**
Series date **01/2015**
Offset file **TP52-USA52015B.off**
Data file **US6705**

HULL

Length Overall **15.856 m**
Maximum Beam **4.430 m**
Draft **3.505 m**
Displacement **7,078 kg**
DLR **2.0629**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.325%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.425m**

CREW

Maximum weight **1,260 kg** (declared)
Minimum weight **1,071 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	98.95	101.83
Headsail Luffed	66.01	66.01
Headsail Flying		
Symmetric		
Asymmetric	270.15	270.15

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **25.36**
Storm Jib **19.54**
Heavy Weather Jib **52.75**

SAIL LIMITS

Headsails **8**
Spinnakers **6**

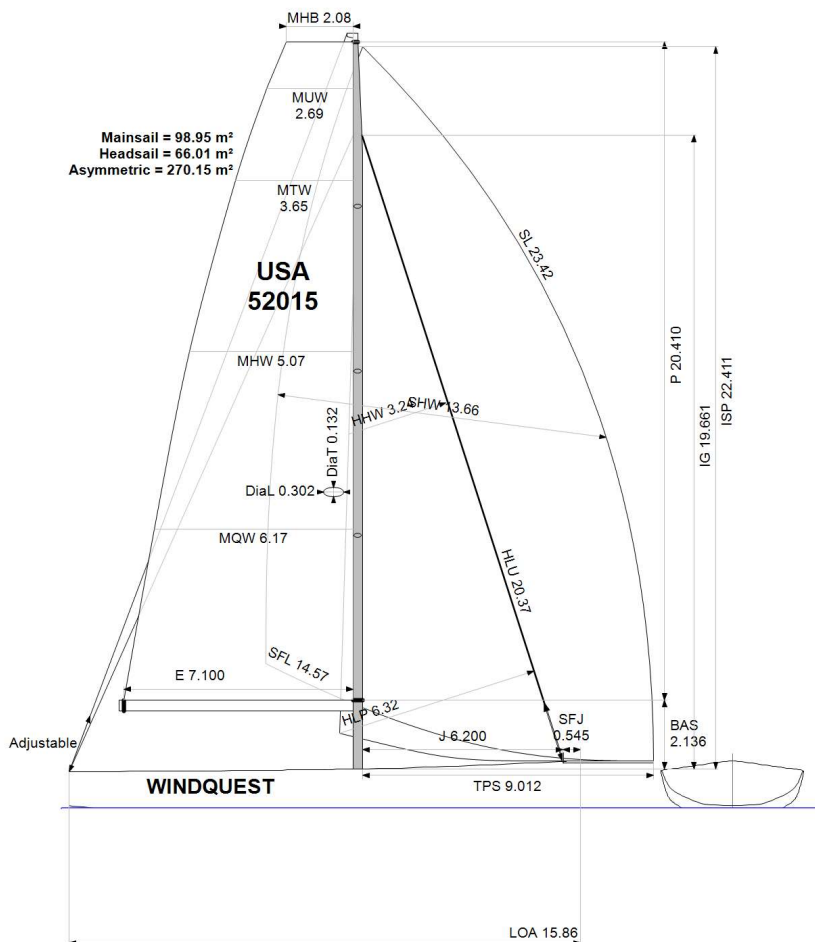
STABILITY

Righting Moment **418.4 kg·m**
Stability Index **141.1**

COMMENTS

Dyneema life lines 2025 GL52 SS

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.3°	43.3°	40.4°	38.6°	37.4°	36.7°	36.0°	36.0°	37.1°
Beat VMG	3.77	5.16	6.16	6.67	6.98	7.19	7.35	7.54	7.53
52°	5.97	7.88	9.06	9.57	9.96	10.28	10.54	10.95	11.10
60°	6.45	8.34	9.41	10.02	10.47	10.84	11.15	11.62	11.89
75°	6.80	8.68	9.73	10.61	11.22	11.71	12.14	12.85	13.38
90°	6.70	8.56	9.63	10.66	11.62	12.39	13.02	14.13	14.95
110°	5.85	7.92	9.43	10.47	11.25	12.00	13.26	15.38	16.94
120°	5.65	7.74	9.35	10.60	11.69	12.59	13.48	15.14	17.33
135°	4.83	6.99	8.83	10.03	11.34	12.83	14.32	16.51	18.68
150°	3.99	5.82	7.49	8.77	9.82	10.99	12.41	15.57	19.42
Run VMG	3.46	5.04	6.49	7.60	8.50	9.52	10.75	13.49	16.82
Gybe Angles	140.6°	140.6°	141.4°	146.5°	147.9°	144.7°	144.1°	145.0°	148.1°



International Certificate
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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	955.4	698.1	584.2	540.1	515.9	500.9	490.0	477.6	478.1
52°	602.9	456.8	397.5	376.0	361.4	350.2	341.4	328.8	324.5
60°	557.9	431.6	382.5	359.4	343.7	332.1	323.0	309.7	302.9
75°	529.8	414.8	369.8	339.4	321.0	307.5	296.6	280.1	269.1
90°	537.2	420.4	373.7	337.7	309.8	290.6	276.4	254.8	240.8
110°	615.1	454.4	381.7	343.9	320.1	300.1	271.5	234.0	212.5
120°	637.0	465.2	385.1	339.7	307.9	285.9	267.1	237.8	207.7
135°	745.6	515.3	407.6	358.8	317.5	280.7	251.4	218.1	192.8
150°	901.8	618.0	480.8	410.5	366.7	327.5	290.0	231.2	185.3
Run VMG	1041.3	713.7	555.1	474.0	423.4	378.2	334.9	267.0	214.0
Selected Courses									
Windward / Leeward	996.9	705.9	569.6	507.0	469.7	439.5	412.5	372.3	346.1
All purpose	741.8	540.3	448.1	403.3	374.4	351.5	330.9	301.6	282.6

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	482.3	1.2440
All purpose	383.3	1.5655

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	494.2	1.2141
Triple Number AP Medium	384.5	1.5606
Triple Number AP High	325.1	1.8457
Triple Number Windward/Leeward Low	667.6	0.8988
Triple Number Windward/Leeward Medium	482.9	1.2425
Triple Number Windward/Leeward High	404.1	1.4846
Single Number Predominant Upwind	430.8	1.3929
Single Number Predominant Reaching	371.4	1.6157
Single Number Predominant Downwind	401.5	1.4945
Predominant Upwind - Low	583.8	1.0278
Predominant Upwind - Low/Med	457.3	1.3122
Predominant Upwind - Medium	406.7	1.4752
Predominant Upwind - Med/High	370.8	1.6181
Predominant Upwind - High	349.9	1.7146
Predominant Downwind Low	604.6	0.9924
Predominant Downwind Low/Med	446.4	1.3441
Predominant Downwind Medium	374.5	1.6023
Predominant Downwind Med/High	314.1	1.9100
Predominant Downwind High	274.0	2.1898
Predominant Reaching Low	524.6	1.1437
Predominant Reaching Low/Med	405.5	1.4797
Predominant Reaching Medium	350.2	1.7134
Predominant Reaching Med/High	305.5	1.9642
Predominant Reaching High	278.2	2.1571

SA/DSPL Upwind	44.46	SA/DSPL Downwind	99.47
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Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	744.9	0.8054
5-Band Windward/Leeward Low/Med	552.9	1.0852
5-Band Windward/Leeward Medium	474.3	1.2649
5-Band Windward/Leeward Med/High	415.1	1.4454
5-Band Windward/Leeward High	374.7	1.6013
Windward/Leeward 60-40 Low	742.7	0.8078
Windward/Leeward 60-40 Low/Med	557.4	1.0765
Windward/Leeward 60-40 Medium	483.7	1.2405
Windward/Leeward 60-40 Med/High	430.5	1.3938
Windward/Leeward 60-40 High	395.7	1.5163
5-Band AP Low	545.5	1.1000
5-Band AP Low/Med	435.0	1.3793
5-Band AP Medium	377.9	1.5879
5-Band AP Med/High	333.2	1.8010
5-Band AP High	303.4	1.9776
5-Band SF Bay Tour - Low	639.3	0.9385
5-Band SF Bay Tour - Low/Med	527.0	1.1386
5-Band SF Bay Tour - Medium	454.8	1.3193
5-Band SF Bay Tour - Med/High	401.1	1.4959
5-Band SF Bay Tour - High	366.0	1.6395
Chicago-Mac Upwind		1.3464
Chicago-Mac All Purpose		1.3918
Chicago-Mac Downwind		1.4249
Bayview-Mac Cove Island		1.0134
Bayview-Mac Shore		1.0232
Harvest Moon Regatta	317.1	1.8924



International Certificate
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WINDQUEST
USA 52015

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



Data in **meters/kilograms (Metric)**

HULL AND APPENDAGES (Lightship Trim)

Class	TP 52	LOA	15.856	VCGD	-1.326
Measurement	06/03/2025	Max. Beam	4.430	VCGM	-1.331
HIN		Draft	3.505	RM Rated (kg·m)	418.4
Plan review		Displacement	7,078	Limit of positive stability(°)	142.2
Hull construction	Carbon	Wetted area	40.67	Stability Index	141.1
Carbon rudder	Yes	IMS L	15.494	Default crew weight	1,237
Light stanchions	Yes	LSM0	15.081	Declared crew weight	1,260
Trim tab	No	Acc. length	14.398		
		Sink (kg/mm)	32.43		

PROPELLER

Propeller Type	Folding 2 blades				
Installation	Strut	PRD	0.425	EDL	1.205
Twin screw	No	PBW	0.120	ST1	0.056
Hydro generator	No	PIPA	0.0041	ST2	0.200
				ST3	0.200
				ST4	0.112
				ST5	0.313

RIG

Forestay tension	Aft & Forward	P	20.410	E	7.100	Flying Headsail Foretriangles
Inner stay	None Fitted	IG	19.661	J	6.200	
Mast material	Carbon	ISP	22.411	BAS	2.136	Id ISP TPS
Single headsail furler	No	MDT1	0.132	FSD	0.040	
Mainsail furler	No	MDL1	0.302	SFJ	0.545	1 19.661 6.000
Articulated bowsprit	No	MDT2	0.107	SPL		
Non-circular rigging	No	MDL2	0.155	WPL		
Fiber rigging	Yes	TL	3.445	TPS	9.012	
Adjustable mast foot	Yes	MW	0.302	BD	0.350	
Running backstays	1	GO	0.335	MWT	250.80	
Checkstays				MCG	7.350	
Spreaders	3					
Rotating mast	No					

FLOTATION AND STABILITY

Calculation method	Boom inclining	SFFP	0.447	SAFP	15.848	W1	202.0	PD1	254.7	WD	6.651
Flotation Date	06/03/2025	FFM	1.457	FAM	1.124	W2	202.0	PD2	252.2	PLM	9000.00
		FF	1.459	FA	1.125	W3	202.0	PD3	253.5	GSA	1.0
		LCFcl	8.812	LCFsh	9.072	W4	202.0	PD4	253.5	RSA	1.0
		SG	1.0200	HBI	1.220	LCFD	9.146			RM	417.4

INVENTORY

TANKS	Id	Description	Sp.Wght	Capacity	Condition	LCG	VCG
	1	PVC tank CL	Fuel	84	45	8.25	-0.10
			Total deductible	13		8.25	-0.10
OTHER ITEMS	Id	Kind Description	Weight	LCG	VCG		
	2	Battery 12V 100 Ah Gp 31 Relion LI battery CL	15	10.05	0.10		
	1	Battery 12V Super B 12V Li engine battery CL	7	9.75	0.50		
	3	Engine Yanmar 4JH 5X1					
			Total deductible	0			



International Certificate
2025

WINDQUEST
USA 52015

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
MN-9	2.08	2.69	3.65	5.07	6.17	98.95	19/02/2025	187280 (GL52 SS 25)
MN-7	2.08	2.70	3.65	5.06	6.16	98.87	24/04/2024	187268 (GL52 SS 25)
MN-8	2.08	2.66	3.62	5.06	6.17	98.71	28/02/2025	198505 (GL52 SS 25)
MN-4	2.08	2.69	3.57	5.06	6.12	98.34	19/02/2025	174489 (GL52 SS 25)

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-5	0.13	0.96	1.74	3.24	4.78	6.32	20.37	Yes	No	66.01	28/02/2025	200614 (GL52 SS 25)
J1-4	0.13	0.96	1.74	3.25	4.78	6.30	20.37	Yes	No	65.99	28/02/2025	200613 (GL52 SS 25)
J2-4	0.13	0.95	1.74	3.22	4.72	6.30	20.37	Yes	No	65.55	28/02/2025	200615 (GL52 SS 25)
SS-4	0.07	0.93	1.77	3.37	4.82	6.10	18.17	No	Inner	58.89	19/02/2025	187272 (GL52 SS25)

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A2+ -2	25.28	21.56	23.42	13.66	14.57	94%	270.15	19/02/2025	200618 (GL52 SS 25)
A1.5-5	25.48	21.70	23.59	13.50	14.71	92%	270.14	19/02/2025	200616 (GL52 SS 25)
A2-4	25.41	21.57	23.49	13.65	14.40	95%	270.14	19/02/2025	200617 (GL52 SS 25)



International Certificate
2025

WIZARD
USA 50002

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



APH ToD: **381.4** CDL: **16.202**

APH ToT: **1.5732** CertNo: **US50002**

BOAT

Class **IRC 52**
Designer **Botin**
Builder **Longitud Cero**
Age date **09/2024**
Series date **01/2017**
Offset file **BOTIN52-
USA50002A.off**
Data file **USA50002**

HULL

Length Overall **15.867 m**
Maximum Beam **4.430 m**
Draft **3.658 m**
Displacement **7,176 kg**
DLR **2.0385**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.260%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.448m**

CREW

Maximum weight **1,300 kg** (declared)
Minimum weight **1,105 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	99.48	101.98
Headsail Luffed	66.66	66.66
Headsail Flying		
Symmetric		
Asymmetric	272.47	272.47
(1 asymmetric(s) with SHW/SFL < 85%)		

STORM SAIL AREAS (m²)

Trysail **26.42**
Storm Jib **20.25**
Heavy Weather Jib **54.66**

SAIL LIMITS

Headsails **8**
Spinnakers **6**

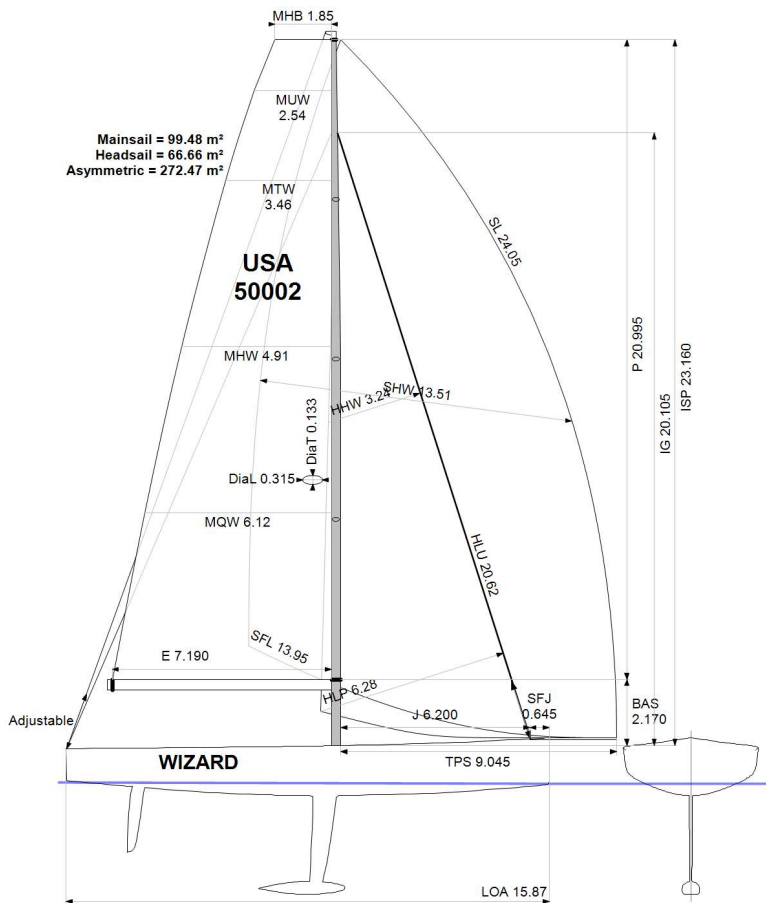
STABILITY

Righting Moment **417.0 kg·m**
Stability Index **138.0**

COMMENTS

Inshore 2025-1

The owner and any other person in charge is responsible
that boat is complying with her certificate in accordance
with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.0°	43.0°	40.2°	38.5°	37.2°	36.4°	35.8°	35.7°	36.7°
Beat VMG	3.78	5.17	6.18	6.69	7.00	7.20	7.36	7.55	7.54
52°	5.98	7.89	9.07	9.58	9.96	10.27	10.53	10.93	11.08
60°	6.45	8.34	9.42	10.01	10.46	10.82	11.13	11.60	11.86
75°	6.78	8.68	9.74	10.60	11.20	11.69	12.12	12.83	13.34
90°	6.67	8.55	9.65	10.67	11.61	12.37	13.00	14.10	14.91
110°	6.23	8.23	9.60	10.76	11.81	12.66	13.45	15.35	16.91
120°	5.75	7.81	9.37	10.62	11.75	13.00	14.11	15.88	17.29
135°	4.86	7.01	8.84	10.06	11.39	12.86	14.33	16.55	19.53
150°	4.02	5.85	7.50	8.78	9.84	11.05	12.49	15.63	19.41
Run VMG	3.48	5.07	6.50	7.61	8.52	9.57	10.82	13.54	16.81
Gybe Angles	140.6°	140.6°	141.7°	146.7°	147.4°	144.4°	144.3°	145.6°	148.0°



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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	953.3	696.0	582.1	538.5	514.6	499.7	489.0	476.7	477.1
52°	602.5	456.3	397.0	375.9	361.6	350.6	341.8	329.2	324.9
60°	558.1	431.4	382.2	359.7	344.2	332.7	323.5	310.2	303.5
75°	530.9	415.0	369.5	339.7	321.5	308.0	297.1	280.7	269.8
90°	539.4	421.0	373.2	337.3	310.0	291.0	276.9	255.3	241.4
110°	577.8	437.3	375.0	334.4	304.8	284.4	267.6	234.5	212.9
120°	626.6	461.1	384.1	339.0	306.4	276.9	255.1	226.8	208.3
135°	740.7	513.5	407.1	357.7	316.0	279.8	251.2	217.5	184.3
150°	895.5	615.5	479.8	409.8	366.0	325.7	288.2	230.3	185.5
Run VMG	1034.1	710.7	554.1	473.2	422.6	376.1	332.8	265.9	214.2
Selected Courses									
Windward / Leeward	992.5	703.3	568.1	505.9	468.6	437.9	410.9	371.3	345.7
All purpose	736.0	537.4	446.6	401.8	372.4	349.0	329.4	300.8	282.0

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	481.0	1.2475
All purpose	381.4	1.5732

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	492.0	1.2196
Triple Number AP Medium	382.6	1.5683
Triple Number AP High	323.6	1.8543
Triple Number Windward/Leeward Low	665.3	0.9019
Triple Number Windward/Leeward Medium	481.7	1.2457
Triple Number Windward/Leeward High	402.8	1.4895
Single Number Predominant Upwind	430.1	1.3951
Single Number Predominant Reaching	370.8	1.6179
Single Number Predominant Downwind	400.4	1.4985
Predominant Upwind - Low	582.5	1.0300
Predominant Upwind - Low/Med	456.4	1.3147
Predominant Upwind - Medium	406.2	1.4773
Predominant Upwind - Med/High	370.5	1.6195
Predominant Upwind - High	349.6	1.7163
Predominant Downwind Low	602.5	0.9958
Predominant Downwind Low/Med	445.5	1.3469
Predominant Downwind Medium	373.6	1.6058
Predominant Downwind Med/High	313.4	1.9144
Predominant Downwind High	273.1	2.1970
Predominant Reaching Low	523.7	1.1457
Predominant Reaching Low/Med	404.9	1.4820
Predominant Reaching Medium	349.8	1.7155
Predominant Reaching Med/High	305.3	1.9651
Predominant Reaching High	277.8	2.1601
SA/DSPL Upwind	44.37	
SA/DSPL Downwind		99.32

Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	742.1	0.8085
5-Band Windward/Leeward Low/Med	551.4	1.0882
5-Band Windward/Leeward Medium	473.1	1.2683
5-Band Windward/Leeward Med/High	413.7	1.4504
5-Band Windward/Leeward High	373.7	1.6054
Windward/Leeward 60-40 Low	740.0	0.8108
Windward/Leeward 60-40 Low/Med	555.8	1.0795
Windward/Leeward 60-40 Medium	482.4	1.2438
Windward/Leeward 60-40 Med/High	429.1	1.3982
Windward/Leeward 60-40 High	394.8	1.5198
5-Band AP Low	542.0	1.1071
5-Band AP Low/Med	433.2	1.3849
5-Band AP Medium	376.0	1.5959
5-Band AP Med/High	331.5	1.8098
5-Band AP High	302.5	1.9836
5-Band SF Bay Tour - Low	637.0	0.9419
5-Band SF Bay Tour - Low/Med	525.4	1.1419
5-Band SF Bay Tour - Medium	453.4	1.3234
5-Band SF Bay Tour - Med/High	399.5	1.5017
5-Band SF Bay Tour - High	364.8	1.6449
Chicago-Mac Upwind		1.3487
Chicago-Mac All Purpose		1.3946
Chicago-Mac Downwind		1.4284
Bayview-Mac Cove Island		1.0164
Bayview-Mac Shore		1.0261
Harvest Moon Regatta	314.6	1.9074



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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	IRC 52	LOA	15.867	VCGD	-1.208
Measurement	17/09/2024	Max. Beam	4.430	VCGM	-1.214
HIN		Draft	3.658	RM Rated (kg-m)	417.0
Plan review		Displacement	7,176	Limit of positive stability(°)	139.1
Hull construction	Carbon	Wetted area	41.44	Stability Index	138.0
Carbon rudder	Yes	IMS L	15.564	Default crew weight	1,252
Light stanchions	Yes	LSM0	15.210	Declared crew weight	1,300
Trim tab	No	Acc. length	14.398		
		Sink (kg/mm)	33.18		

PROPELLER

Propeller Type	Folding 2 blades
Installation	Strut
Twin screw	No
Hydro generator	No

PRD	0.448	EDL	1.175	ST3	0.201
PBW	0.115	ST1	0.052	ST4	0.114
PIPA	0.0041	ST2	0.201	ST5	0.320

RIG

Forestay tension	Aft & Forward	P	20.995	E	7.190
Inner stay	None Fitted	IG	20.105	J	6.200
Mast material	Carbon	ISP	23.160	BAS	2.170
Single headsail furler	No	MDT1	0.133	FSD	0.051
Mainsail furler	No	MDL1	0.315	SFJ	0.645
Articulated bowsprit	No	MDT2	0.105	SPL	
Non-circular rigging	No	MDL2	0.158	WPL	
Fiber rigging	Yes	TL	10.500	TPS	9.045
Adjustable mast foot	Yes	MW	0.289	BD	0.355
Running backstays	1	GO	0.294	MWT	258.40
Checkstays	0			MCG	7.655
Spreaders	3				
Rotating mast	No				

Flying Headsail
Foretriangles

Id	ISP	TPS
2	23.160	8.945
1	23.160	8.945

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.777	SAFP	15.841	W1	146.4	PD1	491.1	WD	17.965
Flotation Date	17/09/2024	FFM	1.456	FAM	1.104	W2	146.4	PD2	491.1	PLM	9000.00
Comment	Empty, glass conditions, Y=0.052	FF	1.460	FA	1.105	W3	146.4	PD3	491.1	GSA	1.0
		LCFcl	8.908	LCFsh	9.168	W4	146.4	PD4	491.1	RSA	1.0
		SG	1.0220	HBI	1.229					RM	421.7

INVENTORY

TANKS	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	1	PVC Fuel Tank on CL	Fuel	83	26	8.05	-0.20
			<i>Total deductible</i>		22	8.05	-0.20
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>	<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	
	3	Battery	Starter battery, Stbd side, TCG=0.1	10	10.35	0.00	
	2	Battery	House battery, 24V 100Ah, Li-Ion RB24V100, Stbd side, TCG=0.25	28	10.20	0.00	
	1	Engine	Yanmar 4JH5E 54hp	201	9.05	0.00	
	#	Deductible	Bunk 3&4	8	8.45	1.23	
	#	Deductible	head	5	6.61	0.00	
		Deductible	Galley	5	7.37	0.35	
	#	Deductible	Bunk 1&2	8	8.45	0.50	
			<i>Total deductible</i>		26	7.89	0.60



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MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
IM-G	1.85	2.54	3.46	4.91	6.12	99.48	10/09/2024	OUS158131-001
IM E	1.85	2.50	3.38	4.82	6.05	98.22	12/05/2024	OAU112792-001

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-I	0.14	1.00	1.77	3.24	4.73	6.28	20.62	Yes	No	66.66	06/09/2024	OUS158201-001
J2-F	0.14	0.97	1.73	3.19	4.71	6.31	20.62	Yes	No	66.23	06/09/2024	OUS158201-002
J1-C	0.12	0.88	1.67	3.15	4.67	6.20	20.32	Yes	No	64.10	07/05/2024	OAU111218-001
J3+ D	0.13	0.88	1.63	3.08	4.60	6.21	19.96	Yes	No	62.25	11/05/2024	OAU112792-002
SS-D	0.07	0.79	1.51	2.98	4.45	5.84	18.10	No	Inner	53.73	17/05/2024	OUS156774-004
J4-C (HWJ)	0.10	0.88	1.60	3.02	4.64	6.22	16.93	Yes	No	52.63	11/05/2024	OAU114131-004
GS-F	0.35	0.79	1.22	1.96	2.63	3.28	10.69	Yes	Inner	20.10	24/05/2024	OUS157138-001

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A2-J	26.18	21.91	24.05	13.51	13.95	97%	272.47	17/05/2024	OUS156774-003
A1.5-G	25.97	22.22	24.10	13.44	14.05	96%	272.31	26/04/2024	OUS156774-002
A2+ -D	26.05	22.35	24.20	13.32	13.92	96%	271.04	19/09/2024	OAU114131-007
A1-B	25.58	22.17	23.88	12.98	14.63	89%	264.81	25/04/2024	OUS156774-001
MH0 C	24.17	21.70	22.94	8.40	11.20	75%	171.25	18/06/2024	OUS157138-002



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APH ToD: **383.0** CDL: **16.209**

APH ToT: **1.5667** CertNo: **US7396**

BOAT

Class **TP 52**
Designer **BOTIN**
Builder **Longitude Cero**
Age date **01/2015**
Series date **01/2015**
Offset file **TP52-USA88528C.off**
Data file **US6706**

HULL

Length Overall **15.858 m**
Maximum Beam **4.428 m**
Draft **3.508 m**
Displacement **7,049 kg**
DLR **2.0526**
IMS Division **Performance**
Dynamic Allowance **0.000%**
Age Allowance **0.325%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.430m**

CREW

Maximum weight **1,400 kg** (declared)
Minimum weight **1,190 kg** * when applied
Non Manual Power
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	98.81	101.71
Headsail Luffed	65.87	65.87
Headsail Flying		
Symmetric		
Asymmetric	268.86	268.86

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **25.35**
Storm Jib **19.21**
Heavy Weather Jib **51.87**

SAIL LIMITS

Headsails **8**
Spinnakers **6**

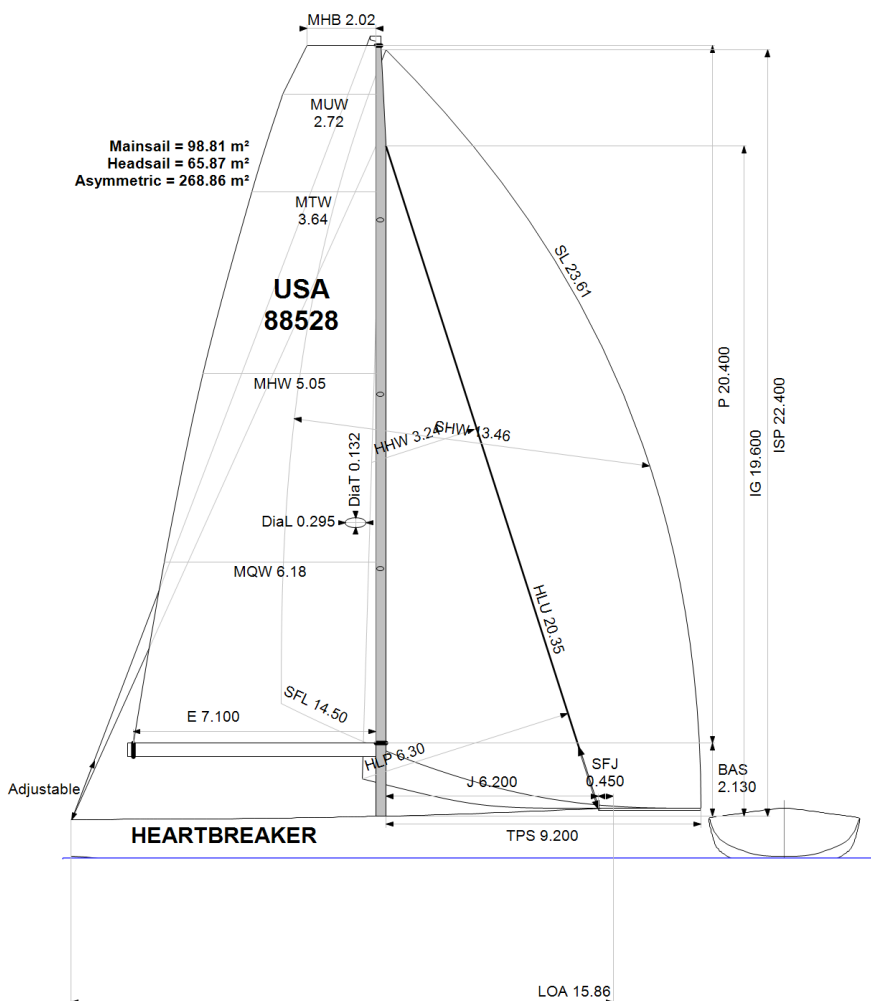
STABILITY

Righting Moment **421.0 kg·m**
Stability Index **141.2**

COMMENTS

2025 Inshore

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	43.4°	43.4°	40.4°	38.6°	37.3°	36.5°	36.0°	35.9°	36.6°
Beat VMG	3.74	5.14	6.17	6.69	7.00	7.22	7.37	7.58	7.57
52°	5.94	7.86	9.06	9.59	9.99	10.32	10.59	11.00	11.17
60°	6.42	8.32	9.41	10.04	10.50	10.88	11.19	11.68	11.96
75°	6.77	8.65	9.71	10.60	11.25	11.75	12.19	12.92	13.46
90°	6.67	8.53	9.61	10.63	11.61	12.42	13.07	14.20	15.04
110°	5.84	7.91	9.43	10.51	11.29	12.05	13.20	15.40	17.02
120°	5.63	7.72	9.34	10.59	11.74	12.65	13.55	15.23	17.34
135°	4.81	6.96	8.81	10.01	11.31	12.80	14.32	16.60	18.81
150°	3.98	5.81	7.46	8.75	9.79	10.96	12.38	15.53	19.40
Run VMG	3.45	5.03	6.46	7.58	8.48	9.49	10.72	13.45	16.80
Gybe Angles	140.7°	140.7°	141.5°	146.5°	147.8°	144.7°	144.1°	144.9°	147.8°



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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	962.4	700.2	583.5	538.4	514.0	499.0	488.2	475.1	475.3
52°	606.6	458.1	397.3	375.2	360.3	348.9	340.1	327.2	322.4
60°	560.5	432.8	382.6	358.6	342.8	330.8	321.7	308.2	300.9
75°	531.6	416.1	370.7	339.5	320.1	306.5	295.4	278.7	267.5
90°	540.0	422.0	374.6	338.8	310.0	289.9	275.5	253.6	239.3
110°	616.0	455.1	381.8	342.7	318.7	298.6	272.7	233.7	211.5
120°	639.9	466.4	385.5	339.8	306.6	284.6	265.8	236.4	207.6
135°	749.0	517.0	408.5	359.6	318.2	281.3	251.4	216.9	191.4
150°	903.4	619.7	482.3	411.4	367.6	328.4	290.9	231.9	185.6
Run VMG	1043.2	715.6	556.9	475.0	424.5	379.2	335.9	267.7	214.3
Selected Courses									
Windward / Leeward	1001.6	707.9	570.2	506.7	469.3	439.1	412.0	371.4	344.8
All purpose	745.2	541.9	448.6	403.1	373.9	350.8	330.4	300.6	281.3

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	482.1	1.2445
All purpose	383.0	1.5667

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	495.2	1.2116
Triple Number AP Medium	384.1	1.5620
Triple Number AP High	324.3	1.8501
Triple Number Windward/Leeward Low	669.1	0.8967
Triple Number Windward/Leeward Medium	482.6	1.2432
Triple Number Windward/Leeward High	403.6	1.4867
Single Number Predominant Upwind	430.4	1.3940
Single Number Predominant Reaching	371.5	1.6149
Single Number Predominant Downwind	401.9	1.4927
Predominant Upwind - Low	585.8	1.0243
Predominant Upwind - Low/Med	457.3	1.3121
Predominant Upwind - Medium	406.0	1.4777
Predominant Upwind - Med/High	369.7	1.6230
Predominant Upwind - High	348.4	1.7223
Predominant Downwind Low	606.5	0.9893
Predominant Downwind Low/Med	447.2	1.3416
Predominant Downwind Medium	374.8	1.6008
Predominant Downwind Med/High	314.0	1.9109
Predominant Downwind High	273.3	2.1951
Predominant Reaching Low	526.4	1.1397
Predominant Reaching Low/Med	406.1	1.4773
Predominant Reaching Medium	350.2	1.7132
Predominant Reaching Med/High	304.8	1.9684
Predominant Reaching High	277.0	2.1662

SA/DSPL Upwind	44.50	SA/DSPL Downwind	99.36
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Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	747.2	0.8030
5-Band Windward/Leeward Low/Med	553.2	1.0846
5-Band Windward/Leeward Medium	474.0	1.2657
5-Band Windward/Leeward Med/High	414.6	1.4471
5-Band Windward/Leeward High	373.8	1.6049
Windward/Leeward 60-40 Low	745.1	0.8053
Windward/Leeward 60-40 Low/Med	557.5	1.0763
Windward/Leeward 60-40 Medium	483.1	1.2421
Windward/Leeward 60-40 Med/High	429.7	1.3964
Windward/Leeward 60-40 High	394.6	1.5207
5-Band AP Low	547.1	1.0968
5-Band AP Low/Med	435.2	1.3785
5-Band AP Medium	377.5	1.5896
5-Band AP Med/High	332.5	1.8045
5-Band AP High	302.4	1.9842
5-Band SF Bay Tour - Low	641.0	0.9361
5-Band SF Bay Tour - Low/Med	527.2	1.1381
5-Band SF Bay Tour - Medium	454.3	1.3206
5-Band SF Bay Tour - Med/High	400.4	1.4984
5-Band SF Bay Tour - High	364.9	1.6443
Chicago-Mac Upwind		1.3470
Chicago-Mac All Purpose		1.3911
Chicago-Mac Downwind		1.4228
Bayview-Mac Cove Island		1.0108
Bayview-Mac Shore		1.0205
Harvest Moon Regatta	316.7	1.8944



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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	TP 52	LOA	15.858	VCGD	-1.375
Measurement	25/05/2024	Max. Beam	4.428	VCGM	-1.376
HIN		Draft	3.508	RM Rated (kg-m)	421.0
Plan review		Displacement	7,049	Limit of positive stability(°)	142.3
Hull construction	Carbon	Wetted area	40.57	Stability Index	141.2
Carbon rudder	Yes	IMS L	15.540	Default crew weight	1,237
Light stanchions	Yes	LSM0	15.085	Declared crew weight	1,400
Trim tab	No	Acc. length	14.391		
		Sink (kg/mm)	32.39		

PROPELLER

Propeller Type	Folding 2 blades				
Installation	Strut	PRD	0.430	EDL	1.200
Twin screw	No	PBW	0.105	ST1	0.055
Hydro generator	No	PIPA	0.0041	ST2	0.200
				ST3	0.200
				ST4	0.113
				ST5	0.310

RIG

Forestay tension	Aft & Forward	P	20.400	E	7.100
Inner stay	None Fitted	IG	19.600	J	6.200
Mast material	Carbon	ISP	22.400	BAS	2.130
Single headsail furler	No	MDT1	0.132	FSD	0.040
Mainsail furler	No	MDL1	0.295	SFJ	0.450
Articulated bowsprit	No	MDT2	0.100	SPL	
Non-circular rigging	No	MDL2	0.155	WPL	
Fiber rigging	Yes	TL	2.900	TPS	9.200
Adjustable mast foot	No	MW	0.280	BD	0.385
Running backstays	1	GO	0.280	MWT	247.60
Checkstays				MCG	7.600
Spreaders	3				
Rotating mast	No				

FLOTATION AND STABILITY

Calculation method	Boom inclining	SFFP	0.777	SAFP	15.837	W1	167.8	PD1	211.2	WD	6.688
Flotation Date	08/06/2025	FFM	1.440	FAM	1.124	W2	167.8	PD2	211.3	PLM	9000.00
		FF	1.448	FA	1.128	W3	167.8	PD3	210.0	GSA	1.0
		LCFcl	8.806	LCFsh	9.065	W4	167.8	PD4	208.5	RSA	1.0
		SG	1.0000	HBI	1.240	LCFD	9.072			RM	420.4

INVENTORY

TANKS	Id	Description	Sp.Wght	Capacity	Condition	LCG	VCG
	fuel	5 liters in the tank	Fuel	20	5	7.20	0.00
			Total deductible	4		7.20	0.00



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USA 88528

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
Mn-24	2.02	2.72	3.64	5.05	6.18	98.81	05/04/2024	OUS156445-007

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J1.5-25	0.14	0.98	1.76	3.24	4.75	6.30	20.35	Yes	No	65.87	23/04/2025	OUS160775-003
SS-24	0.07	0.85	1.62	3.14	4.63	6.07	17.97	No	Inner	55.84	05/04/2024	OUS156445-009

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A1.5-25	25.45	21.76	23.61	13.46	14.50	93%	268.86	25/04/2025	OUS160775-006
A2+ E	25.39	21.64	23.52	13.59	14.14	96%	268.46	16/02/2024	TR144350