

BOAT Name NEXT BOAT Sail Nr USA 52787	GPH 576.7	HULL Length Overall 13.728m Maximum Beam 4.032m Displacement 12,514kg Draft 2.265m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.234% Hull Construction Cored Carbon Rudder Yes Crew Arm Extension 0.00
GENERAL Class MORRIS 45 mod Designer PAYNE Builder MORRIS Series 04/2000 Age 07/2007 Age Allowance 0.487% Offset File morris45_USA 52787.off - 10/06/2020 Measurement by - 30/05/2020		IMSLS 12.774m VCGD 0.252m Sink 30.06kg/mm RL 9.696m VCGM 0.001m WS 41.67m² LSM0 12.839m Displacement/Length ratio 5.9129



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	562.3			634.4		
Time on Time	1.0670			1.0640		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	661.4	510.1	457.3	864.8	637.6	553.5
Time on Time	1.0205	1.3232	1.4760	0.7805	1.0587	1.2195

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1007.9	829.2	730.9	678.1	653.5	641.2	620.9
52°	651.9	549.0	489.0	463.2	453.0	448.0	442.9
60°	612.0	520.1	470.5	450.2	440.4	435.8	431.6
75°	569.1	482.8	450.4	437.8	428.8	420.8	412.6
90°	547.4	467.9	438.8	423.8	413.2	405.8	394.8
110°	565.8	476.9	440.2	421.9	407.2	391.9	366.1
120°	591.7	488.1	444.1	423.0	405.3	388.1	366.5
135°	658.6	534.4	465.3	436.0	417.3	398.6	360.8
150°	780.8	624.2	529.2	470.8	445.2	428.9	400.6
Run VMG	901.5	720.8	611.1	543.7	512.1	480.6	432.2

Certificate
Number **US6543**
ORC Ref **03410000L7T**
Issued On **23/06/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default **983kg**
Maximum **983kg**
Minimum* **737kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **617.4 0.9718**
Non Spin OSN **600.0 0.9999**

Selected Courses							
Windward / Leeward	954.7	775.0	671.0	610.9	582.8	560.9	526.5
Circular Random	793.8	640.9	559.3	512.5	484.1	465.6	440.9
Coastal / Long Distance	949.4	725.0	601.1	529.0	493.8	466.3	423.8
Non Spinnaker	870.2	694.4	597.9	540.5	504.6	480.9	451.2

Sails Limitations
Headsails **6** Spinnakers **4**

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°	41.3°	41.3°	40.3°	39.8°	38.6°
Beat VMG	3.57	4.34	4.93	5.31	5.51	5.61	5.80
52°	5.52	6.56	7.36	7.77	7.95	8.04	8.13
60°	5.88	6.92	7.65	8.00	8.17	8.26	8.34
75°	6.33	7.46	7.99	8.22	8.40	8.56	8.73
90°	6.58	7.69	8.21	8.49	8.71	8.87	9.12
110°	6.36	7.55	8.18	8.53	8.84	9.19	9.83
120°	6.08	7.38	8.11	8.51	8.88	9.27	9.82
135°	5.47	6.74	7.74	8.26	8.63	9.03	9.98
150°	4.61	5.77	6.80	7.65	8.09	8.39	8.99
Run VMG	3.99	4.99	5.89	6.62	7.03	7.49	8.33
Gybe Angles	143.0°	148.0°	147.5°	149.8°	151.5°	175.0°	178.0°

Class Division Length
CDL = **11.234**

Storm Sails Areas
Heavy Weather Jib **44.98**
Storm Jib (JL=11.87) **16.66**
Storm Trysail **18.99**

Owner

BOAT			
Name	NEXT BOAT	Sail Nr	USA 52787
File	US6543	Data in	meters/kilograms
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	17.220	E	6.300
IG	18.174	J	5.366
ISP	19.229	SFJ	0.000
BAS	1.644	SPL	0.000
FSD	0.036	TPS	6.749
MDT1	0.147	MW	0.240
MDL1	0.247	GO	0.263
MDT2	0.140	BD	0.290
MDL2	0.228	MWT	297.00
TL	0.700	MCG	5.665

INCLINING TEST AND FREEBOARDS			
Inclining Test	Boom Inclining	LCFD	5.938
Flotation date	31/05/2008	SG	1.0200
FFM	1.290	FF	1.297
FAM	1.027	FA	1.037
SFFP	0.680	SAFP	12.569
W1	129.6	PD1	235.4
W2	129.6	PD2	228.9
W3	129.6	PD3	227.8
W4	129.6	PD4	226.1
WD	6.195	GSA	1.0
RSA	1.0	PLM	9000.0
LCF from stem on CL / on sheer			7.767 / 8.027
Maximum beam station from stem			8.274
RM Measured			275.5kg-m
RM Default			270.7kg-m
Limit of positive stability / Stab.Index			112.4° / 121.8
Freeboard at mast at 5.366			1.111



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MIZZEN RIG AND SAILS			
N/A			

PROPELLER			
Installation	Strut	PRD	0.436
Type	Folding 3 blades	PBW	0.127
Twin Screw	No	PIPA	0.0039
ST1	0.042	ST3	0.180
ST2	0.180	ST4	0.112
ST5	0.250	EDL	2.585

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COMMENTS			

MOVABLE BALLAST			
N/A			

CENTERBOARD			
N/A			



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.23	1.24	2.22	3.90	5.17	62.69	63.84	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		
	20.70	17.65	19.18	10.73	11.28	173.21	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
0.11	0.76	1.44	2.75	4.06	5.33	18.28	49.97	Y	No	11/02/2020		

MEASUREMENT INVENTORY				
Measurer				
Date	30/05/2020			
Comment				
Internal Ballast total = 0.0				
Id	Item	Weight	Distance	VCG Description
1	Engine			Yanmar 4JH57 57 HP
Id	Item	Weight Description		

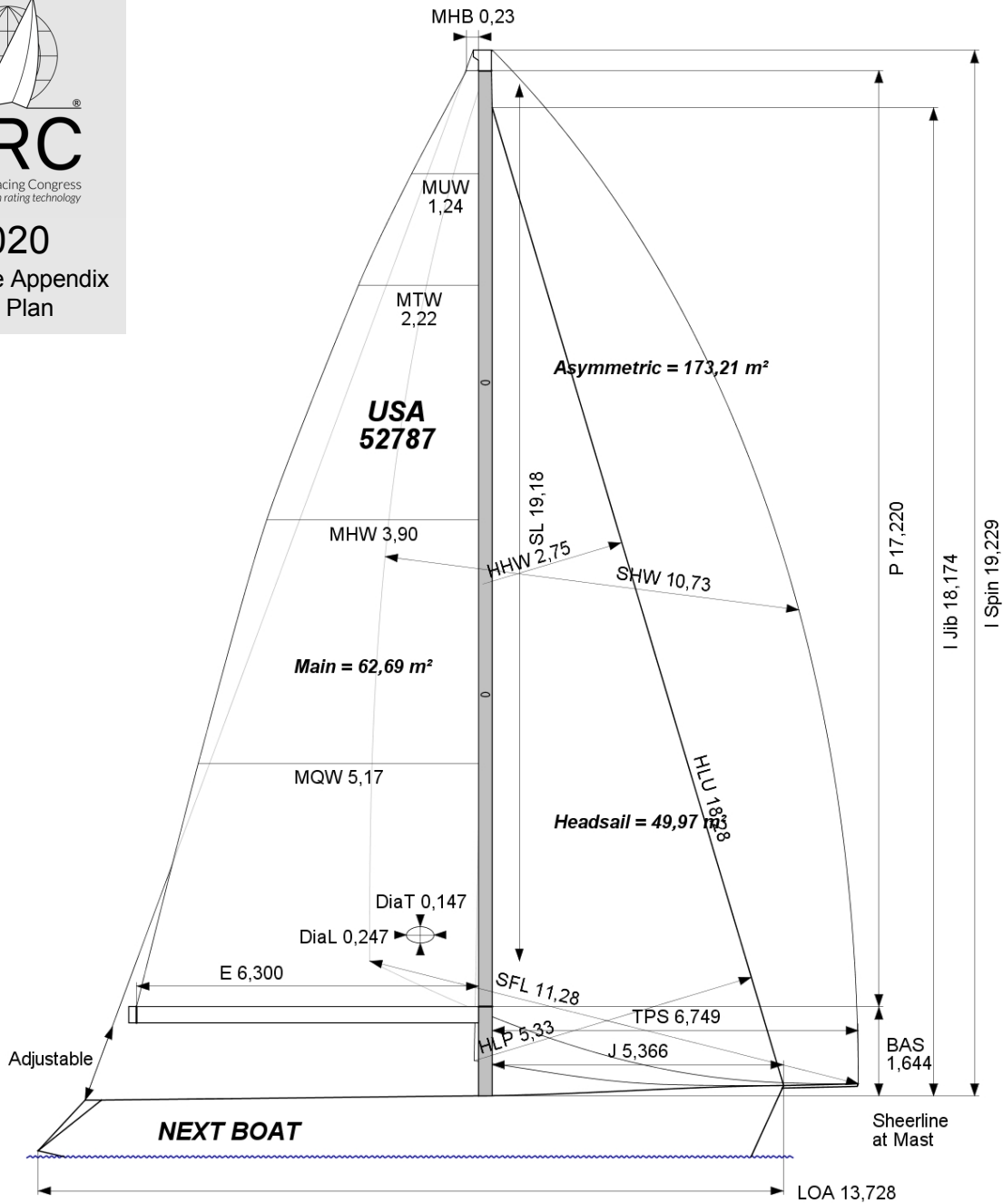
MEASUREMENT INVENTORY									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
5	Tank	Waste		PVC	45.0	11.07	0.20	0-0	aft starboard side
4	Tank	Fuel		Alloy	240.0	8.27	0.00	246-0	port side outboard
3	Tank	Water		Alloy	95.0	5.61	0.10	0-0	port side outboard
2	Tank	Water		Alloy	95.0	3.13	0.50	0-0	centerline
1	Tank	Water		Alloy	190.0	5.46	0.10	0-0	under starboard
Id	Item	Weight	Distance	VCG Description					
3	Battery	15.0	8.67	0.00 12V Group 31 90 Ah genset battery, centerline					
2	Battery	15.0	8.57	0.00 12V Group 31 90 Ah engine battery, centerline					
1	Battery	75.0	8.17	0.00 3 x 12V 4D 225 Ah house batteries, centerline					
7	Misc	30.0	13.20	2.10 Radar & satcom units w/mast, stbd side					
6	Misc	25.0	5.40	0.40 Force 10 stove/oven					
5	Misc	40.0	5.37	0.20 Sea Frost Refridge & Freezer, port side					
4	Misc	30.0	8.57	0.10 HVAC unit, port side					



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
Main	0.23	1.24	2.22	3.90	5.17	62.70		11/02/2020	Z Sails	Unknown						
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
J 1	0.11	0.76	1.44	2.75	4.06	5.33	18.28	99%	49.97	Y	No		11/02/2020	Z Sails		
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A2	20.70	17.65	19.18	10.73	11.28	173.22	asym		11/02/2020	Z Sails	Nylon	A2 Spin				
A0	18.97	18.21	18.59	6.47	8.61	106.87	asy76		27/04/2020	Z Sails		Code 0				