

BOAT Name Madame Gray Sail Nr FIN-11944	GPH 532.6	HULL Length Overall 13.071m Maximum Beam 3.852m Displacement 7,673kg Draft 2.691m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class Landmark 43 Designer Mark Mills Builder Landmark Yachts Series 08/2006 Age 01/2009 Age Allowance 0.455% Offset File LAND43AIR.off - 28/06/2011 10:20:50 Measurement by - 05/07/2020		IMSL 11.679m VCGD -0.548m Sink 23.60kg/mm RL 11.397m VCGM -0.492m WS 33.66m² LSM0 11.259m Displacement/Length ratio 5.3761



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	520.3			586.3		
Time on Time	1.1532			1.1513		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	595.3	476.3	428.3	772.0	588.1	522.7
Time on Time	1.1338	1.4173	1.5760	0.8743	1.1477	1.2914

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	866.4	716.9	655.7	625.5	612.1	604.9	591.3
52°	564.4	479.2	454.4	444.0	438.3	435.1	427.2
60°	529.9	461.7	440.8	431.1	424.9	420.1	414.2
75°	499.9	448.7	427.0	411.8	403.4	396.5	389.1
90°	496.6	447.4	425.0	405.7	388.4	376.3	360.3
110°	531.9	452.0	421.3	403.1	387.4	372.9	342.2
120°	545.5	456.8	423.8	396.0	374.4	358.5	327.5
135°	609.1	488.4	441.1	413.4	385.2	357.0	300.3
150°	725.4	577.8	489.8	443.8	422.7	401.3	348.2
Run VMG	837.6	667.1	565.6	512.0	486.8	456.9	402.0

Certificate
Number **11944**
ORC Ref **03290000NUK**
Issued On **04/08/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default 815kg
Maximum **1,075kg**
Minimum* **806kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	576.5	1.0408
Non Spin OSN	562.1	1.0675

Selected Courses							
Windward / Leeward	852.0	692.0	610.6	568.7	549.4	530.9	496.6
Circular Random	720.6	587.2	517.6	478.0	453.2	435.6	407.6
Coastal / Long Distance	850.5	650.8	552.3	495.7	465.7	439.0	391.6
Non Spinnaker	804.7	645.2	558.8	507.8	475.6	453.6	423.4

Sails Limitations

Headsails	Spinnakers
6	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°	41.6°	39.8°	38.3°	37.9°	37.3°	37.1°
Beat VMG	4.16	5.02	5.49	5.76	5.88	5.95	6.09
52°	6.38	7.51	7.92	8.11	8.21	8.27	8.43
60°	6.79	7.80	8.17	8.35	8.47	8.57	8.69
75°	7.20	8.02	8.43	8.74	8.92	9.08	9.25
90°	7.25	8.05	8.47	8.87	9.27	9.57	9.99
110°	6.77	7.96	8.54	8.93	9.29	9.65	10.52
120°	6.60	7.88	8.50	9.09	9.62	10.04	10.99
135°	5.91	7.37	8.16	8.71	9.34	10.08	11.99
150°	4.96	6.23	7.35	8.11	8.52	8.97	10.34
Run VMG	4.30	5.40	6.36	7.03	7.40	7.88	8.95
Gybe Angles	143.0°	145.0°	149.0°	152.0°	151.5°	176.0°	143.0°

Class Division Length
CDL = **11.532**

Storm Sails Areas
Heavy Weather Jib **40.82**
Storm Jib (JL=11.31) **15.12**
Storm Trysail **18.68**

Owner

BOAT	
Name Madame Gray	Sail Nr FIN-11944
File L11944	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 17.350	E 6.150	MDT1 0.130	MW 0.260
IG 17.280	J 4.820	MDL1 0.260	GO 0.290
ISP 19.270	SFJ 0.290	MDT2 0.121	BD 0.310
BAS 1.920	SPL	MDL2 0.194	MWT 230.00
FSD 0.035	TPS 6.970	TL 1.780	MCG 6.650

INCLINING TEST AND FREEBOARDS			
Inclining Test Boom Inclining		LCFD	
Flotation date 05/07/2020		SG 1.0050	
FFM 1.405	FF 1.403	SFFP 1.000	
FAM 1.145	FA 1.173	SAFP 12.850	
W1 121.4	PD1 253.2	WD 6.065	
W2 121.4	PD2 251.4	GSA 1.0	
W3 121.4	PD3 252.9	RSA 1.0	
W4 121.4	PD4 252.8	PLM 9000.0	
LCF from stem on CL / on sheer		7.034 / 7.230	
Maximum beam station from stem		8.501	
RM Measured		229.6kg-m	
RM Default		214.3kg-m	
Limit of positive stability / Stab.Index		142.9° / 146.4	
Freeboard at mast at 5.110		1.279	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.450		
Type Feathering 2 blades	PBW 0.115		
Twin Screw No	PIPA 0.0039		
ST1 0.065	ST3 0.180	ST5 0.265	
ST2 0.180	ST4 0.110	EDL 1.960	

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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	
	0.48	1.46	2.42	3.99	5.12	64.41	65.82	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		
	21.11	18.73	19.92	11.04	11.66	185.32	AS · (SFL + 4·SHW) / 6		

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB), HS flying rated area = 67.16												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.08	0.92	1.79	3.50	5.11	6.58	19.61	67.00	N	Yes	18/05/2020	Unknow	Dyneema
0.11	0.78	1.42	2.64	3.89	5.17	17.06	45.09	Y	No		Unknow	
0.05	0.67	1.31	2.63	3.94	5.21	17.14	44.98	Y	No		Unknow	
0.11	0.75	1.41	2.66	3.89	5.14	16.82	44.37	Y	No	19/06/2019	Unknow	
0.11	0.76	1.42	2.64	3.86	5.14	16.86	44.33	Y	No	19/06/2019	Unknow	
0.06	0.56	1.07	2.10	3.15	4.25	15.83	33.55	N	Inner	18/05/2020	Unknow	Dyneema

MEASUREMENT INVENTORY				
Measurer				
Date 05/07/2020				
Comment				
Internal Ballast total = 0.0				
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight Description		

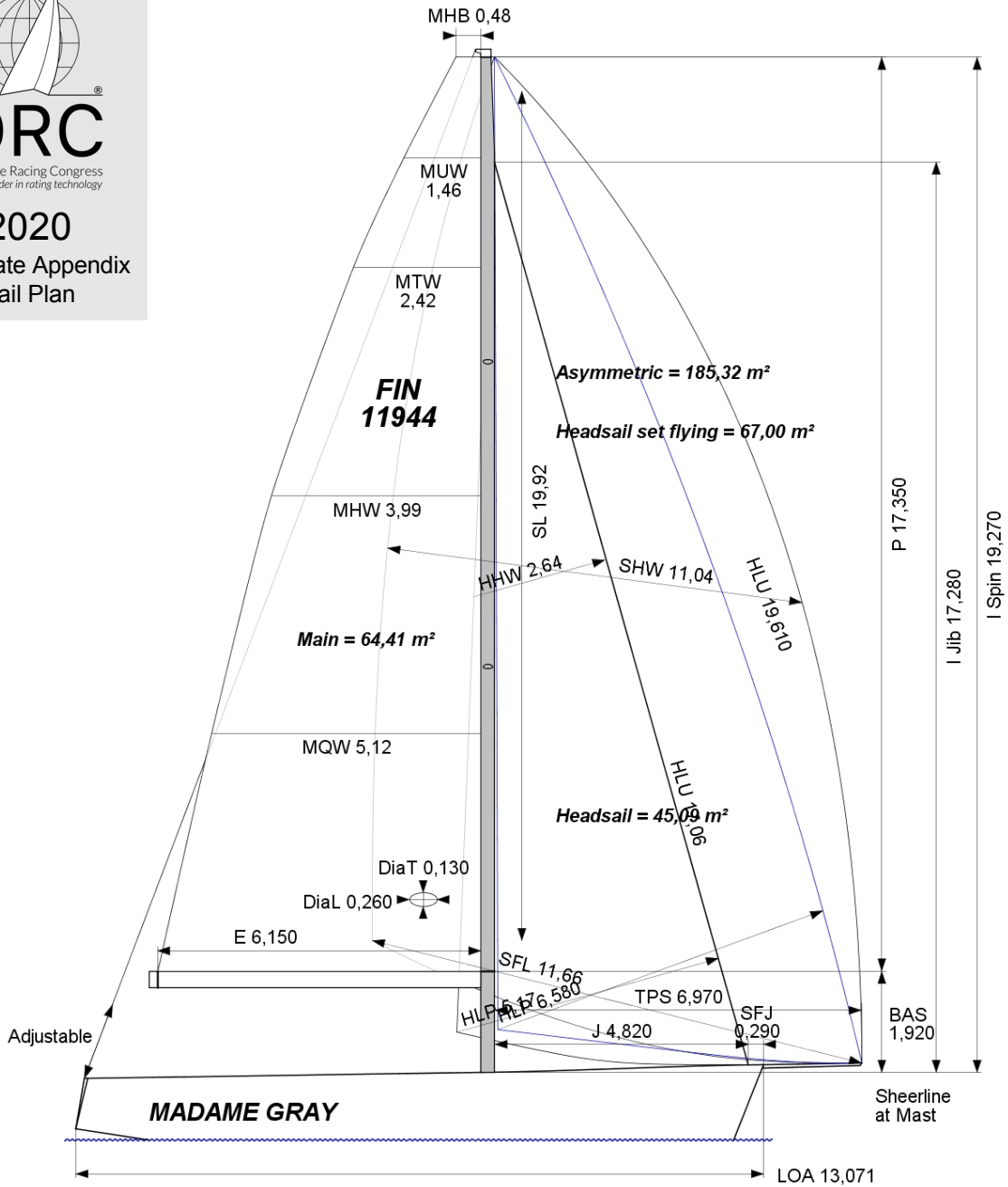
MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
1	Tank	Diesel		170.0	10.00		470.0	Full	
Id	Item	Weight	Distance	VCG Description					



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Sail Plan



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.48	1.46	2.42	3.99	5.12	64.42		18/05/2020	One Sails	Unknown	Dyneema					
HEADSAILS (6)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
J0	0.08	0.92	1.79	3.50	5.11	6.58	19.61	137%	67.00	N	Yes		18/05/2020	One Sails	Unknow	Dyneema
J3-1	0.11	0.78	1.42	2.64	3.89	5.17	17.06	107%	45.09	Y	No				Unknow	
jt	0.05	0.67	1.31	2.63	3.94	5.21	17.14	108%	44.98	Y	No				Unknow	
jib 1	0.11	0.75	1.41	2.66	3.89	5.14	16.82	107%	44.37	Y	No		19/06/2019		Unknow	
jib 2	0.11	0.76	1.42	2.64	3.86	5.14	16.86	107%	44.33	Y	No		19/06/2019		Unknow	
J4	0.06	0.56	1.07	2.10	3.15	4.25	15.83	88%	33.55	N	Inner		18/05/2020	One Sails	Unknow	Dyneema
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (4)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A2	21.11	18.73	19.92	11.04	11.66	185.33	asym		27/03/2019	Doyle	Unknown	Yellow				
A1-1	21.16	19.01	20.09	10.61	11.05	179.06	asym			North Sails	Unknown					
A3	21.01	18.49	19.75	9.07	10.38	153.59	asym			North Sails	Unknown					
A6	19.58	16.37	17.98	8.74	10.30	135.60	asy85		29/05/2020	One Sails	Unknown	White				