

BOAT Name MERIDIAN XI Sail Nr USA 404	GPH 473.9	HULL Length Overall 12.540m Maximum Beam 3.876m Displacement 4,061kg Draft 3.007m Plan Review IMS Reg. Division Performance Dynamic Allowance 0.000% Hull Construction Carbon Carbon Rudder Yes Crew Arm Extension
GENERAL Class Carkeek 40 Mark II Designer Carkeek Builder Premier Composites Series 03/2016 Age 06/2019 Age Allowance 0.130% Offset File NED8809.off - 01/07/2018 11:42:56 Measurement by - 16/09/2019		IMSL 12.209m VCGD -0.882m Sink 22.60kg/mm RL 13.171m VCGM -0.913m WS 28.26m² LSM0 11.684m Displacement/Length ratio 2.5460



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	465.0			530.3		
Time on Time	1.2904			1.2730		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	536.5	425.0	364.4	705.6	539.5	454.5
Time on Time	1.2582	1.5883	1.8523	0.9566	1.2512	1.4851

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	783.1	647.9	601.3	581.8	568.6	556.2	553.5
52°	501.7	442.8	423.0	412.3	405.2	393.6	384.3
60°	466.5	429.1	405.4	391.8	383.4	373.9	360.0
75°	437.8	405.9	381.2	361.4	350.1	342.9	322.4
90°	429.0	386.7	360.0	341.3	324.4	312.5	298.7
110°	443.4	394.6	348.3	319.0	298.4	281.7	258.6
120°	466.2	417.4	371.1	325.5	291.6	270.3	241.9
135°	561.4	448.1	400.6	351.7	307.5	277.7	236.2
150°	675.4	529.7	454.6	406.0	364.3	320.3	246.8
Run VMG	779.9	611.6	525.0	471.9	420.7	369.9	285.0

Certificate
Number **US6490**
ORC Ref **03410000DMQ**
Issued On **21/02/2020**
VPP Ver. **2020 1.01**
Valid until **31/12/2020**

Crew Weight
Default 859kg
Maximum **920kg**
Minimum* **690kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **521.2 1.1512**
Non Spin OSN **509.3 1.1781**

Selected Courses							
Windward / Leeward	781.5	629.8	563.2	526.9	494.6	463.0	419.2
Circular Random	647.0	526.4	461.2	421.4	393.9	373.0	341.9
Coastal / Long Distance	781.3	592.0	505.0	448.0	408.0	372.0	318.7
Non Spinnaker	729.4	585.0	505.7	457.3	424.9	401.2	367.2

Sails Limitations
Headsails **7** Spinnakers **5**

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	44.6°	40.7°	38.6°	37.5°	36.6°	36.0°	36.4°
Beat VMG	4.60	5.56	5.99	6.19	6.33	6.47	6.50
52°	7.18	8.13	8.51	8.73	8.88	9.15	9.37
60°	7.72	8.39	8.88	9.19	9.39	9.63	10.00
75°	8.22	8.87	9.44	9.96	10.28	10.50	11.17
90°	8.39	9.31	10.00	10.55	11.10	11.52	12.05
110°	8.12	9.12	10.34	11.29	12.06	12.78	13.92
120°	7.72	8.62	9.70	11.06	12.35	13.32	14.88
135°	6.41	8.03	8.99	10.24	11.71	12.96	15.24
150°	5.33	6.80	7.92	8.87	9.88	11.24	14.59
Run VMG	4.62	5.89	6.86	7.63	8.56	9.73	12.63
Gybe Angles	141.0°	141.5°	148.5°	151.0°	142.5°	142.5°	143.9°

Class Division Length
CDL = **12.686**

Storm Sails Areas
Heavy Weather Jib **36.33**
Storm Jib (JL=10.67) **13.46**
Storm Trysail **16.81**

Owner

BOAT		
Name	MERIDIAN XI	Sail Nr USA 404
File	US6490	Data in meters/kilograms

RIG		
Forestay Tension	Aft & Forward	Spreaders 2
Inner Stay	None Fitted	Runners/Checkstays 1
Carbon Mast	Yes	Jib Furler No
Fiber Rigging	Yes	Main Furler No
Non-Circular Rigging	No	
Articulated Bowsprit	No	
P	17.218	E 5.576 MDT1 0.150 MW 0.247
IG	16.383	J 4.995 MDL1 0.262 GO 0.253
ISP	19.048	SFJ 0.305 MDT2 0.100 BD 0.283
BAS	1.795	SPL 0.000 MDL2 0.170 MWT 151.00
FSD		TPS 6.735 TL 2.300 MCG 6.056

INCLINING TEST AND FREEBOARDS		
Inclining Test	Boom Inclining	LCFD 8.680
Flotation date	16/09/2019	SG 1.0150
FFM	1.150	FF 1.153 SFFP 0.500
FAM	0.071	FA 0.072 SAFF 12.543
W1	110.7	PD1 229.1 WD 5.410
W2	110.7	PD2 232.6 GSA 1.0
W3	110.7	PD3 230.1 RSA 1.0
W4	110.7	PD4 232.9 PLM 9000.0
LCF from stem on CL / on sheer		6.850 / 7.156
Maximum beam station from stem		10.250
RM Measured		204.0kg-m
RM Default		169.9kg-m
Limit of positive stability / Stab.Index		138.3° / 134.4
Freeboard at mast at 5.300		1.105



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MIZZEN RIG AND SAILS		
N/A		

PROPELLER		
Installation	Strut	PRD 0.418
Type	Folding 2 blades	PBW 0.130
Twin Screw	No	PIPA 0.0038
ST1	0.041	ST3 0.178 ST5 0.295
ST2	0.178	ST4 0.112 EDL 1.225

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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	
	1.40	2.01	2.76	3.94	4.84	64.54	66.14	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		
	21.29	18.55	19.92	11.33	11.88	189.90	AS · (SFL + 4·SHW) / 6		

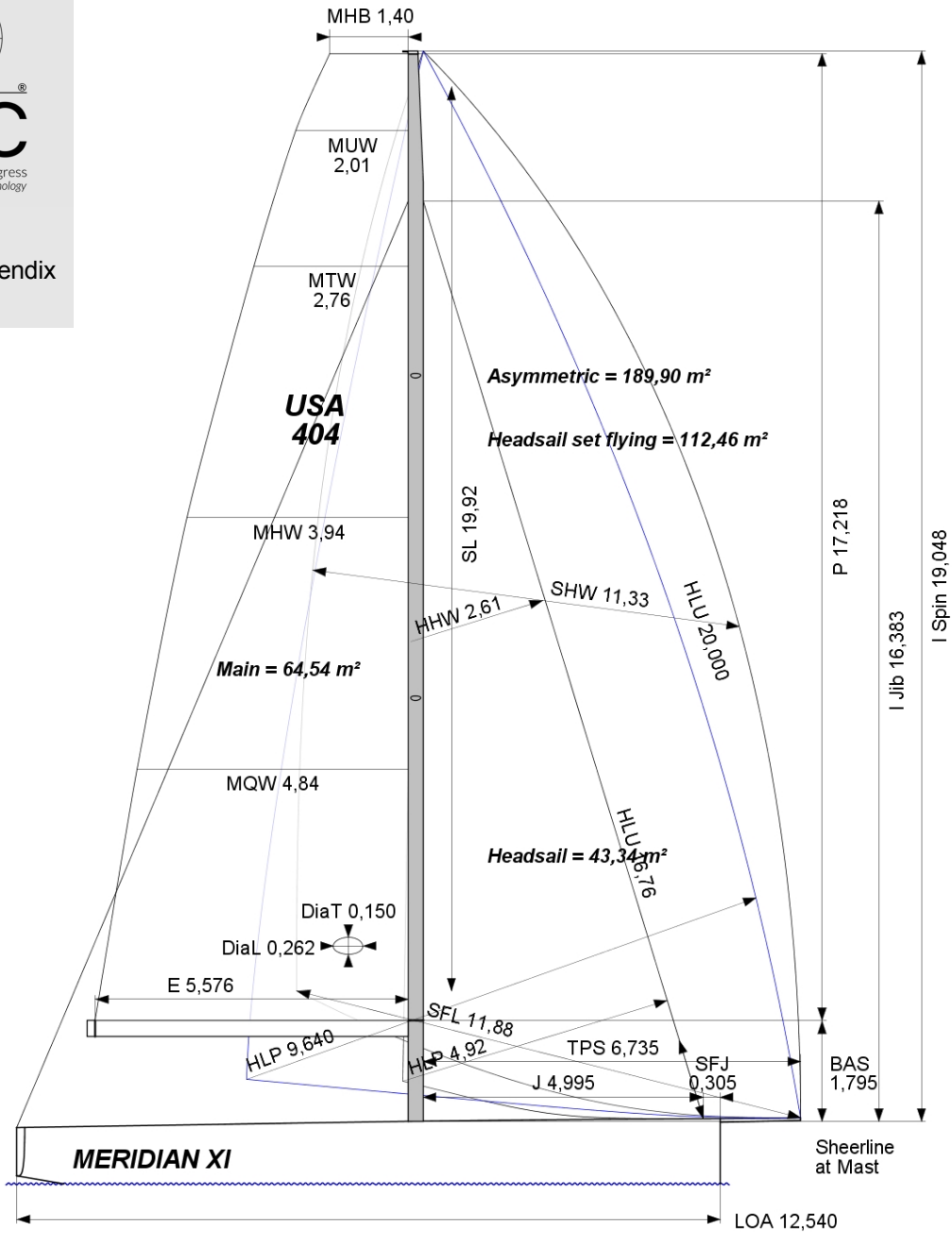
HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.08	1.79	3.39	6.25	8.32	9.64	20.00	112.46		Yes		Unknow	
0.08	0.84	1.45	2.61	3.80	4.92	16.76	43.34	Y	No	15/08/2019	Carbon	BLACK 3DI



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
128853	1.40	2.01	2.76	3.94	4.84	64.54		15/08/2019	Quantum	Carbon	

HEADSAILS (2)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
MH	0.08	1.79	3.39	6.25	8.32	9.64	20.00	193%	112.46		Yes					Unknow
J1 -	0.08	0.84	1.45	2.61	3.80	4.92	16.76	98%	43.34	Y	No		15/08/2019	Quantum	Carbon	BLACK 3DI

SYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A2 - 128859	21.29	18.55	19.92	11.33	11.88	189.91	asym		15/08/2019	Quantum	Nylon	