

BOAT Name CROCODILE Sail Nr USA 61150	GPH 556.8	HULL Length Overall 14.990m Maximum Beam 4.374m Displacement 13,193kg Draft 2.365m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.083% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class BENETEAU FIRST 50 Designer BRIAND Builder BENETEAU Series 10/2006 Age 01/2007 Age Allowance 0.357% Offset File F_50SK.OFF - 02/04/2007 19:03:36 Measurement by Dobbs Davis - 27/04/2017		IMSL 13.423m VCGD -0.002m Sink 33.37kg/mm RL 10.217m VCGM 0.022m WS 45.63m² LSMO 13.207m Displacement/Length ratio 5.7271



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ORC International
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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	543.1			613.0	
Time On Time	1.1047			1.1011		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	648.8	490.3	433.1	853.7	617.3	525.5
Time on Time	1.0404	1.3767	1.5586	0.7907	1.0935	1.2846

TIME ALLOWANCES	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	978.1	805.0	708.9	660.6	635.9	621.4	607.7
52°	625.0	519.8	462.5	440.9	431.4	426.4	420.9
60°	581.1	486.2	440.9	424.1	416.8	412.6	408.4
75°	543.7	460.2	426.1	409.7	398.9	392.6	385.8
90°	540.7	456.9	422.9	405.2	390.9	377.9	361.5
110°	576.0	467.7	421.0	399.7	388.0	376.9	358.7
120°	590.4	478.2	426.4	402.2	381.3	365.3	345.3
135°	652.3	524.1	450.7	417.3	396.6	376.2	334.7
150°	784.3	628.8	518.3	452.7	420.1	400.3	362.3
Run VMG	905.7	726.1	598.5	520.4	473.9	438.2	395.3

Selected Courses	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Windward / Leeward	941.9	765.6	653.7	590.5	554.9	529.8	501.5
Circular Random	775.0	622.3	539.6	491.3	461.5	441.9	416.6
Ocean for PCS	959.5	736.4	609.4	531.2	480.5	445.5	398.1
Non Spinnaker	823.3	656.9	565.6	511.3	477.1	454.3	425.6

Velocity Prediction in Knots for True Wind Speeds	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	45.4°	44.2°	43.8°	42.6°	41.4°	40.6°	40.9°
Beat VMG	3.68	4.47	5.08	5.45	5.66	5.79	5.92
52°	5.76	6.93	7.78	8.17	8.35	8.44	8.55
60°	6.20	7.40	8.17	8.49	8.64	8.73	8.81
75°	6.62	7.82	8.45	8.79	9.02	9.17	9.33
90°	6.66	7.88	8.51	8.88	9.21	9.53	9.96
110°	6.25	7.70	8.55	9.01	9.28	9.55	10.04
120°	6.10	7.53	8.44	8.95	9.44	9.85	10.43
135°	5.52	6.87	7.99	8.63	9.08	9.57	10.76
150°	4.59	5.72	6.95	7.95	8.57	8.99	9.94
Run VMG	3.97	4.96	6.01	6.92	7.60	8.21	9.11
Gybe Angles	139.1°	147.3°	144.5°	152.8°	159.3°	176.6°	180.0°

Certificate

Number **US6069**
ORC Ref **USA00001013**
Issued On **21/06/2017**
VPP Ver. **2017 1.00**
Valid until **28/02/2018**

Crew Weight

Declared **1,024kg**
Default* **1,024kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **584.1 1.0272**
Non Spin OSN **570.1 1.0525**

Sails Limitations

Headsails	Spinnakers
7	5

Class Division Length

CDL = 11.821

Storm Sails Areas

Heavy Weather Jib **49.52**
Storm Jib (JL=12.45) **18.34**
Storm Triesail **20.97**

Owner

BOAT	
Name CROCODILE	Sail Nr USA61150
File US6069	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date 27/04/2017				SG 1.0060	
FFM 1.712	FF 1.719	SFFP 0.250			
FAM 1.248	FA 1.275	SAFP 14.314			
W1 121.8	PD1 449.9	WD 16.640			
W2 121.8	PD2 450.1	GSA 1.0			
W3 121.8	PD3 448.2	RSA 1.0			
W4 121.8	PD4 449.8	PLM 9000.0			
LCF from stem on CL / on sheer				8.229 / 8.498	
Maximum beam station from stem				9.750	
RM Measured				355.1kg·m	
RM Default				374.1kg·m	
Limit of positive stability / Stab.Index				120.7° / 128.1	
Freeboard at mast at 5.920				1.464	

RIG					
Forestay Tension Aft	Spreaders 3				
Inner Stay None Fitted	Runners 0				
Carbon Mast No	Jumper Struts None				
Taper Hollows No	Jib Furler No				
Fiber Rigging No	Main Furler No				
Lenticular Rigging No	Without Backstay No				
Articulated Bowsprit No					
P 18.490	E 6.480	MDT1 0.150	MW 0.283		
IG 19.030	J 5.360	MDL1 0.280	GO 0.317		
ISP 19.030	SFJ 0.560	MDT2 0.130	BD 0.280		
BAS 1.850	SPL 5.360	MDL2 0.200	MWT		
FSP 0.084	TPS	TL 0.910	MCG		



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IMS Measurement Certificate

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.450		
Type Folding 3 blades	PBW 0.120		
Twin Screw No	PIPA 0.0041		
ST1 0.050	ST3 0.180	ST5 0.300	
ST2 0.180	ST4 0.112	EDL 3.350	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



Invalid for Racing

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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.180	1.41	2.45	4.07	5.40	70.71	72.11	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	191.45		SL · (SFL + 4·SHW) / 6	
Asymmetric	Not Available								

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	Fly	Meas.Date	Material	Comment
0.12	1.01	1.94	3.78		7.47	19.37	73.22				Unknow	
0.10	0.89	1.65	3.08	4.38	5.67	19.37	57.81				Unknow	

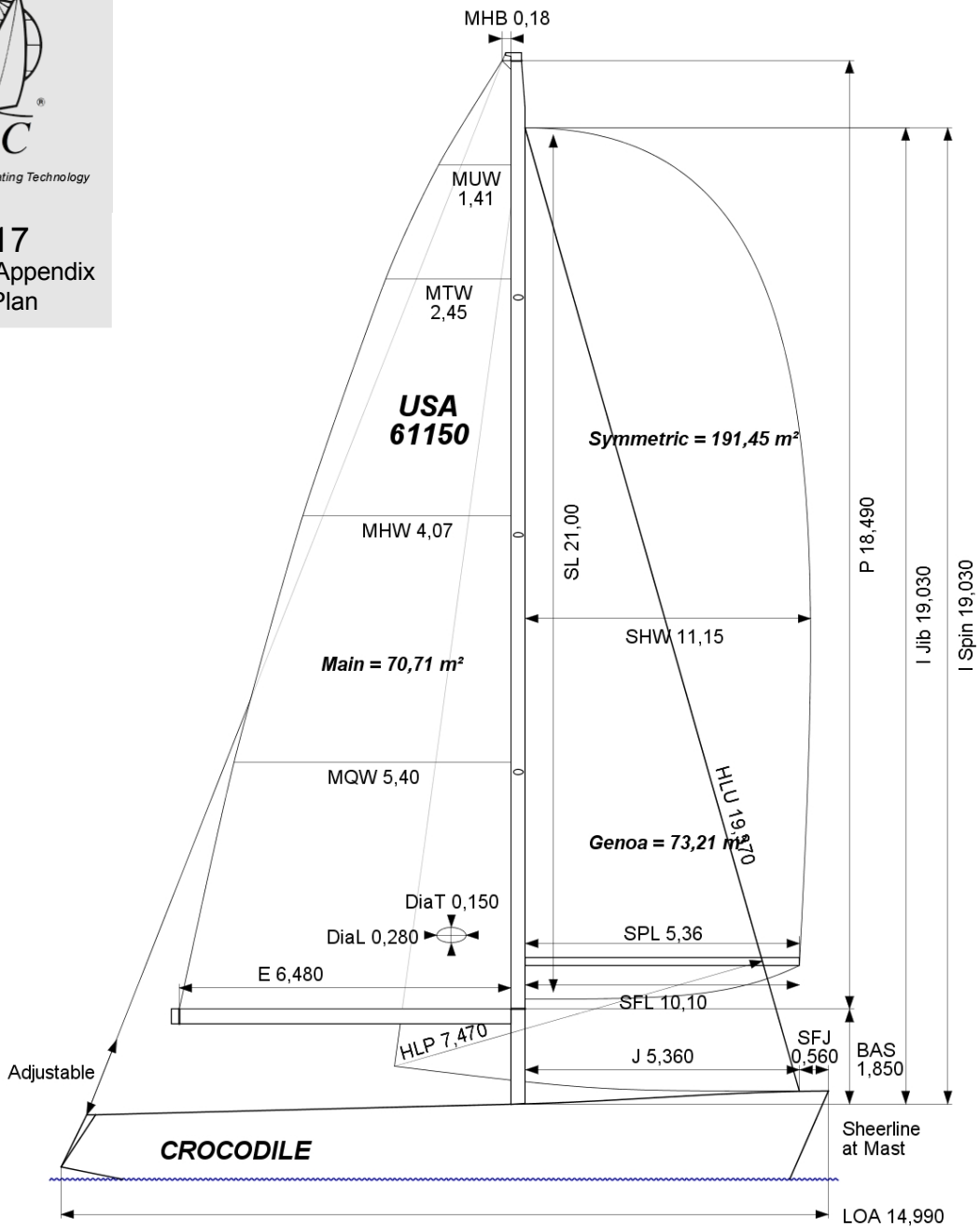
MEASUREMENT INVENTORY				
Measurer Dobbs Davis				
Date 27/04/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
QR	Anchor	40.0	1.00	*Legacy Anchor*
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	Yanmar	4JH TE	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

MEASUREMENT INVENTORY							
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn Description</i>
4	Tank	Waste	PVC	83.0	9.60	0.50	0-0 Aft holding tank
3	Tank	Fuel	PVC	477.0	10.90	0.00	340-0 Main fuel tank
2	Tank	Waste	PVC	83.0	4.90	0.50	0-0 Fwd holding tank
1	Tank	Water	PVC	330.0	3.50	0.00	0-0 Fwd water tank
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>			
2	Battery	30.0	7.70	-0.20 12V Optima AGM D31M engine battery			
1	Battery	180.0	7.50	-0.20 6 x 12V Optima AGM D31M house batteries			
2	Misc	70.0	0.50	1.00 Bow windlass			
1	Misc	300.0	11.90	-0.20 8 kW Northern Lights genset			



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Certificate Appendix
Sail Plan



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.180	1.41	2.45	4.07	5.40	70.71										
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
3	0.12	1.01	1.94	3.78		7.47	19.37	139%	73.22							Unknow
2	0.10	0.89	1.65	3.08	4.38	5.67	19.37	106%	57.81							Unknow
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	21.00	21.00	21.00	11.15	10.10	191.45										
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				