

BOAT Name BAD CAT Sail Nr USA 63	GPH 578.6	HULL Length Overall 11.085m Maximum Beam 3.267m Displacement 4,323kg Draft 2.209m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.128% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class J/111 Designer Johnstone Builder CCFC Series 02/2011 Age 03/2012 Age Allowance 0.195% Offset File US42175.OFF - 15/06/2011 15:11:16 Measurement by Dobbs Davis - 25/03/2017		IMSL 10.416m VCGD -0.140m Sink 18.31kg/mm RL 9.847m VCGM -0.159m WS 23.87m² LSMO 10.103m Displacement/Length ratio 4.1921



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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	562.3			634.1	
Time On Time	1.0671			1.0645		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	662.7	512.8	453.6	860.1	634.5	554.4
Time on Time	1.0186	1.3162	1.4882	0.7848	1.0638	1.2175

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1004.5	820.8	714.6	672.9	653.9	643.2	628.3
52°	653.6	540.7	491.6	475.6	468.3	464.0	454.6
60°	613.1	514.6	477.9	461.3	453.0	447.7	437.9
75°	580.1	497.2	466.9	444.6	427.1	417.8	409.4
90°	578.9	487.2	466.1	443.1	418.8	397.7	376.4
110°	571.7	482.1	446.7	425.8	408.9	392.4	362.4
120°	587.2	489.2	452.3	417.0	392.9	375.3	341.9
135°	657.3	526.7	472.9	441.5	407.7	373.2	309.7
150°	779.2	619.3	523.4	476.2	452.8	428.7	359.1
Run VMG	899.8	715.1	604.3	549.1	522.5	486.5	414.7

Selected Courses							
Windward / Leeward	952.1	767.9	659.5	611.0	588.2	564.8	521.5
Circular Random	797.2	643.4	561.4	513.9	483.8	462.3	429.3
Ocean for PCS	976.2	753.9	629.1	553.0	502.7	465.9	410.1
Non Spinnaker	875.5	698.4	601.6	544.1	507.6	482.8	449.6

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	44.0°	42.0°	40.7°	38.5°	37.7°	37.2°	36.7°
Beat VMG	3.58	4.39	5.04	5.35	5.51	5.60	5.73
52°	5.51	6.66	7.32	7.57	7.69	7.76	7.92
60°	5.87	7.00	7.53	7.80	7.95	8.04	8.22
75°	6.21	7.24	7.71	8.10	8.43	8.62	8.79
90°	6.22	7.39	7.72	8.12	8.60	9.05	9.57
110°	6.30	7.47	8.06	8.46	8.80	9.17	9.93
120°	6.13	7.36	7.96	8.63	9.16	9.59	10.53
135°	5.48	6.84	7.61	8.15	8.83	9.65	11.62
150°	4.62	5.81	6.88	7.56	7.95	8.40	10.02
Run VMG	4.00	5.03	5.96	6.56	6.89	7.40	8.68
Gybe Angles	143.5°	146.1°	149.0°	151.3°	150.4°	176.4°	142.0°

Certificate

Number **US6203**
ORC Ref **USA00001002**
Issued On **14/06/2017**
VPP Ver. **2017 1.00**
Valid until **28/02/2018**

Crew Weight

Declared **699kg**
Default* **699kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **621.3 0.9657**
Non Spin OSN **604.0 0.9934**

Sails Limitations

Headsails	Spinnakers
6	4

Class Division Length

CDL = **10.132**

Storm Sails Areas

Heavy Weather Jib **28.95**
Storm Jib (JL=9.52) **10.72**
Storm Trysail **10.66**

Owner

BOAT	
Name BAD CAT	Sail Nr USA63
File US6203	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 25/03/2017		SG 1.0130	
FFM 1.243	FF 1.246	SFFP 1.000	
FAM 0.878	FA 0.882	SAFP 10.988	
W1 60.5	PD1 477.5	WD 11.365	
W2 60.5	PD2 476.3	GSA 1.0	
W3 60.5	PD3 477.1	RSA 1.0	
W4 60.5	PD4 476.9	PLM 9000.0	
LCF from stem on CL / on sheer		6.112 / 6.319	
Maximum beam station from stem		7.279	
RM Measured		113.5kg-m	
RM Default		106.9kg-m	
Limit of positive stability / Stab.Index		123.8° / 124.1	
Freeboard at mast at 4.523		1.078	

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler Yes		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 13.777	E 4.420	MDT1 0.111	MW 0.177
IG 14.537	J 4.222	MDL1 0.177	GO 0.208
ISP 15.595	SFJ 0.301	MDT2 0.089	BD 0.135
BAS 1.610	SPL 0.000	MDL2 0.140	MWT
FSP 0.064	TPS 6.624	TL 0.905	MCG


MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.413		
Type Folding 2 blades	PBW 0.098		
Twin Screw No	PIPA 0.0032		
ST1 0.042	ST3 0.182	ST5 0.182	
ST2 0.182	ST4 0.112	EDL 2.265	

COMMENTS	
401904J	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	




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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.190	1.05	1.85	3.06	3.82	38.06	38.90	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric	SLU	SLE	SL	SHW	SFL	126.44		AS · (SFL + 4·SHW) / 6	
	17.68	14.95	16.32	9.31	9.26				

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
0.07	0.67	1.27	2.35	3.38	4.40	14.25	32.75	Y		20/03/2017	Carbon	

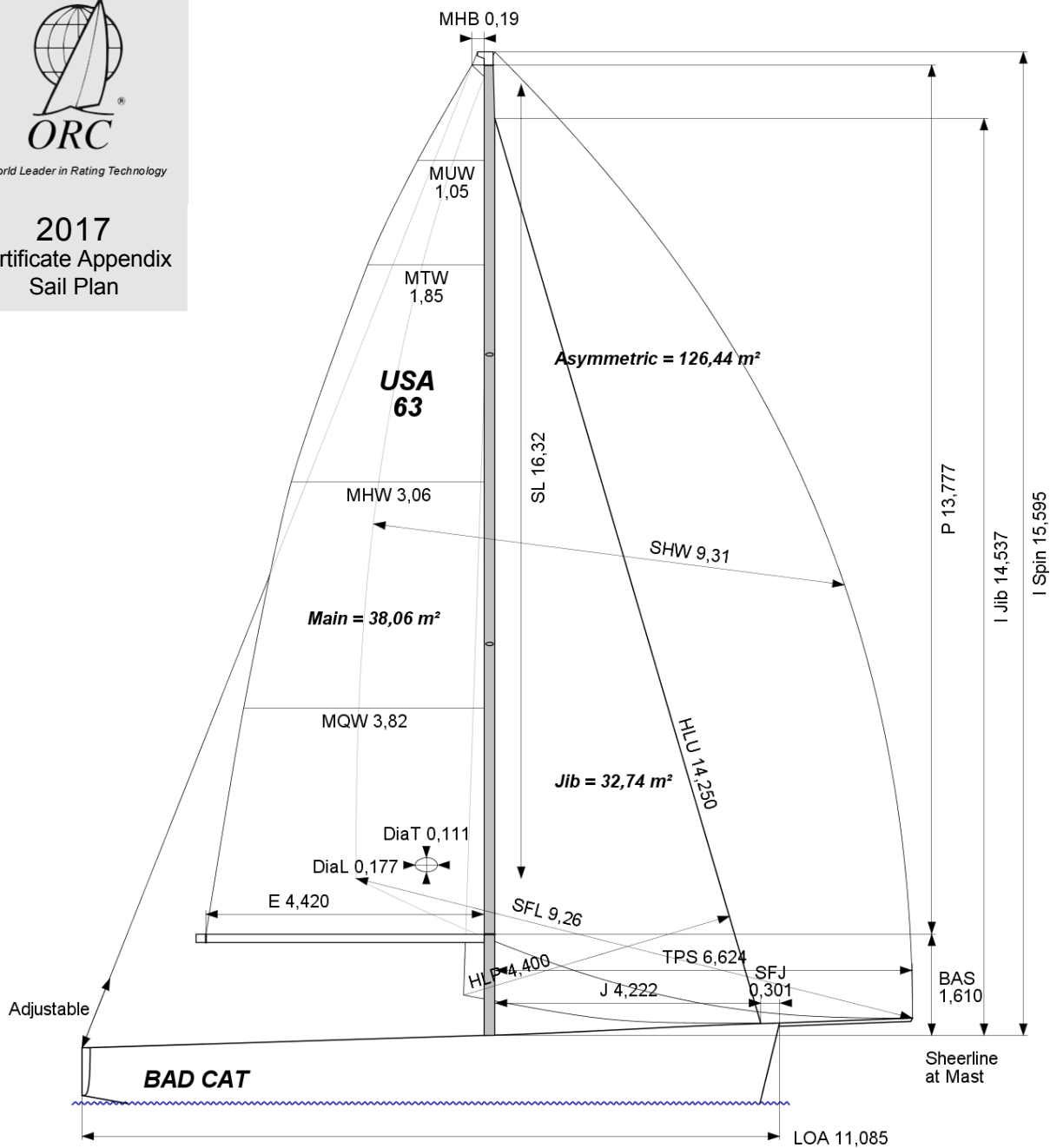
MEASUREMENT INVENTORY				
Measurer Dobbs Davis				
Date 25/03/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	Yanmar	3YM-20	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

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</i>	<i>Description</i>
3	Tank	Fuel	PVC	80.0	8.10	-0.10	10-0	
2	Tank	Holding	PVC	40.0	3.30	0.00	0-0	Port side
1	Tank	Water	Bladder	100.0	5.02	-0.20	0-0	Port side
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				
2	Battery	18.0	5.40	-0.10 Engine				
1	Battery	18.0	5.00	-0.10 House				
1	Misc							



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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	0.190	1.05	1.85	3.06	3.82	38.06	C. Stagg	20/03/2017	Ullman	Carbon	Comment					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.07	0.67	1.27	2.35	3.38	4.40	14.25	104%	32.75	Y		C. Stagg	20/03/2017	Ullman	Carbon	Comment
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	17.68	14.95	16.31	9.31	9.26	126.44	asym	C. Stagg	20/03/2017	Ullman	Nylon	Comment				