

BOAT Name WILD OATS XI Sail Nr AUS 10001	GPH 318.4	HULL Length Overall 30.480m Maximum Beam 5.092m Displacement 28,076kg Draft 5.891m IMS Reg. Division Performance Dynamic Allowance 0.000% Fwd Accommodation No Hull Construction Light, Aramid, Light Carbon Rudder Yes Crew Arm Extension
GENERAL Class REICHEL/PUGH 30m Designer REICHEL/PUGH Builder Mc Conaughy Boats Series 11/2015 Age 12/2015 Age Allowance 0.033% Offset File wildoatsXI_2015.off - 11/12/2015 Measurement by Anderson - 17/11/2016		IMSL 30.091m VCGD -0.700m Sink 86.85kg/mm RL 28.459m VCGM -0.834m WS 108.00m² LSMO 30.411m Displacement/Length ratio 0.9983




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	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	313.3			356.8		
Time On Time	1.9151			1.8920		
Performance Line	1.202	-0.7		1.604	196.1	
Triple Number	Low 1.8680	Medium 2.3619	High 2.7857	Low 1.4084	Medium 1.8473	High 2.2441

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	568.2	472.2	423.2	395.8	373.5	361.9	350.3
52°	360.0	308.1	286.2	275.1	263.8	255.8	245.2
60°	330.8	290.4	274.4	264.1	251.3	242.1	230.9
75°	293.8	269.4	253.3	241.1	229.8	217.9	204.9
90°	284.1	259.2	241.2	227.9	217.9	208.7	188.6
110°	292.0	256.6	233.6	217.8	205.6	195.4	181.3
120°	297.7	263.3	238.7	217.4	202.5	190.8	174.8
135°	344.2	281.0	250.6	227.1	208.9	193.4	174.0
150°	422.7	336.6	305.4	272.5	243.3	216.5	177.9
Run VMG	488.1	388.7	352.6	314.6	281.0	249.9	205.8

Certificate

Number **2779**
ORC Ref **AUS00000588**
Issued On **14/12/2016**
VPP Ver. **2016 1.01**
Valid until **30/06/2017**

Crew Weight

Declared **2,125kg**
Default* **3,363kg**
Non Manual Pwr **Yes**

Special Scoring

	ToD	ToT
Non Spin GPH	333.4	1.7996
Non Spin OSN	329.5	1.8207
N/S Perf. Line	-18.8	1.088

Selected Courses							
Windward / Leeward	528.1	430.4	387.9	355.2	327.2	305.9	278.0
Circular Random	435.8	354.5	310.1	282.4	263.1	248.5	227.2
Ocean for PCS	547.5	423.7	352.4	306.4	273.8	249.0	212.8
Non Spinnaker	459.4	372.1	324.4	294.7	273.8	257.5	232.5

Sails Limitations

Headsails	Spinnakers
8	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	46.1°	42.8°	40.8°	39.3°	37.4°	35.9°	35.1°
Beat VMG	6.34	7.62	8.51	9.09	9.64	9.95	10.28
52°	10.00	11.68	12.58	13.09	13.64	14.07	14.68
60°	10.88	12.40	13.12	13.63	14.33	14.87	15.59
75°	12.25	13.36	14.21	14.93	15.67	16.52	17.57
90°	12.67	13.89	14.93	15.80	16.52	17.25	19.09
110°	12.33	14.03	15.41	16.53	17.51	18.42	19.85
120°	12.09	13.67	15.08	16.56	17.77	18.87	20.59
135°	10.46	12.81	14.36	15.85	17.23	18.62	20.68
150°	8.52	10.70	11.79	13.21	14.79	16.63	20.24
Run VMG	7.38	9.26	10.21	11.44	12.81	14.40	17.50
Gybe Angles	136.7°	140.6°	142.0°	137.3°	144.5°	143.8°	151.4°

Class Division Length

CDL = **29.277**

Storm Sails Areas

Heavy Weather Jib **175.2**
Storm Jib (JL=23.42) **64.92**
Storm Triesail **91.91**

Owner

BOAT	
Name WILD OATS XI	Sail Nr AUS 10001
File 2779.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 06/12/2015	SG 1.0250	
FFM 2.204	FF 2.204	SFFP 1.800
FAM 1.440	FA 1.446	SAFP 30.480
W1 112.5	PD1 51.0	WD 20.830
W2 225.0	PD2 102.0	GSA 19.4
W3 337.5	PD3 153.0	RSA 6400.0
W4 450.0	PD4 204.0	PLM 2040.0
LCF from stem on CL / on sheer		18.142 / 18.306
Maximum beam station from stem		22.010
RM Measured		1635.4kg·m
RM Default		2078.0kg·m
Limit of positive stability / Stab.Index		108.8° / 123.8
Freeboard at mast at 14.690		1.749



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IMS Measurement Certificate

RIG				
Forestay Tension Aft	Spreaders 5			
Inner Stay Adjustable	Runners 3			
Carbon Mast Yes	Jumper Struts None			
Taper Hollows No	Jib Furler No			
Fiber Rigging Yes	Main Furler No			
Lenticular Rigging No	Without Backstay No			
Articulated Bowsprit No				
P 39.400	E 13.330	MDT1 0.200	MW 0.455	
IG 35.983	J 14.400	MDL1 0.455	GO 0.475	
ISP 41.663	SFJ 0.290	MDT2 0.183	BD 0.663	
BAS 2.247	SPL 	MDL2 0.363	MWT 1050.0	
FSP 0.000	TPS 18.600	TL 5.700	MCG 16.590	

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER	
Type No Propeller	

COMMENTS

DSS system removed
 new J and longer forestay fitted
 and inner forestay

MOVEABLE BALLAST	
Keel Angle 43.0	Water Ballast Volume 2,552
List Angle 26.9	Water Ballast LCG 24.68
	Water Ballast VCG 0.76
	Water Ballast TCG 1.84



Invalid for Racing

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DYNAMIC STABILITY SYSTEM	
Wing Span	Maximum Thickness
Wing Angle	Root Chord Distance
Chord Length	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	4.660	5.42	7.13	9.44	11.44	362.16	371.54	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric	SLU	SLE	SL	SHW	SFL			AS · (SFL + 4·SHW) / 6	
	44.76	44.54	44.65	23.84	29.54	929.46			

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
0.10	4.08	8.30	15.87	21.34	25.25	43.17	619.15		Y	14/12/2016	Carbon	R1
0.24		4.16	7.85	11.50	15.00	38.34	296.84	Y		24/11/2016	Carbon	Fits on Fixed Forestay
0.16	1.55	2.95	5.84	8.81	11.88	36.31	214.54	Y		13/04/2015	Carbon	Fits on inner Forestay forestay

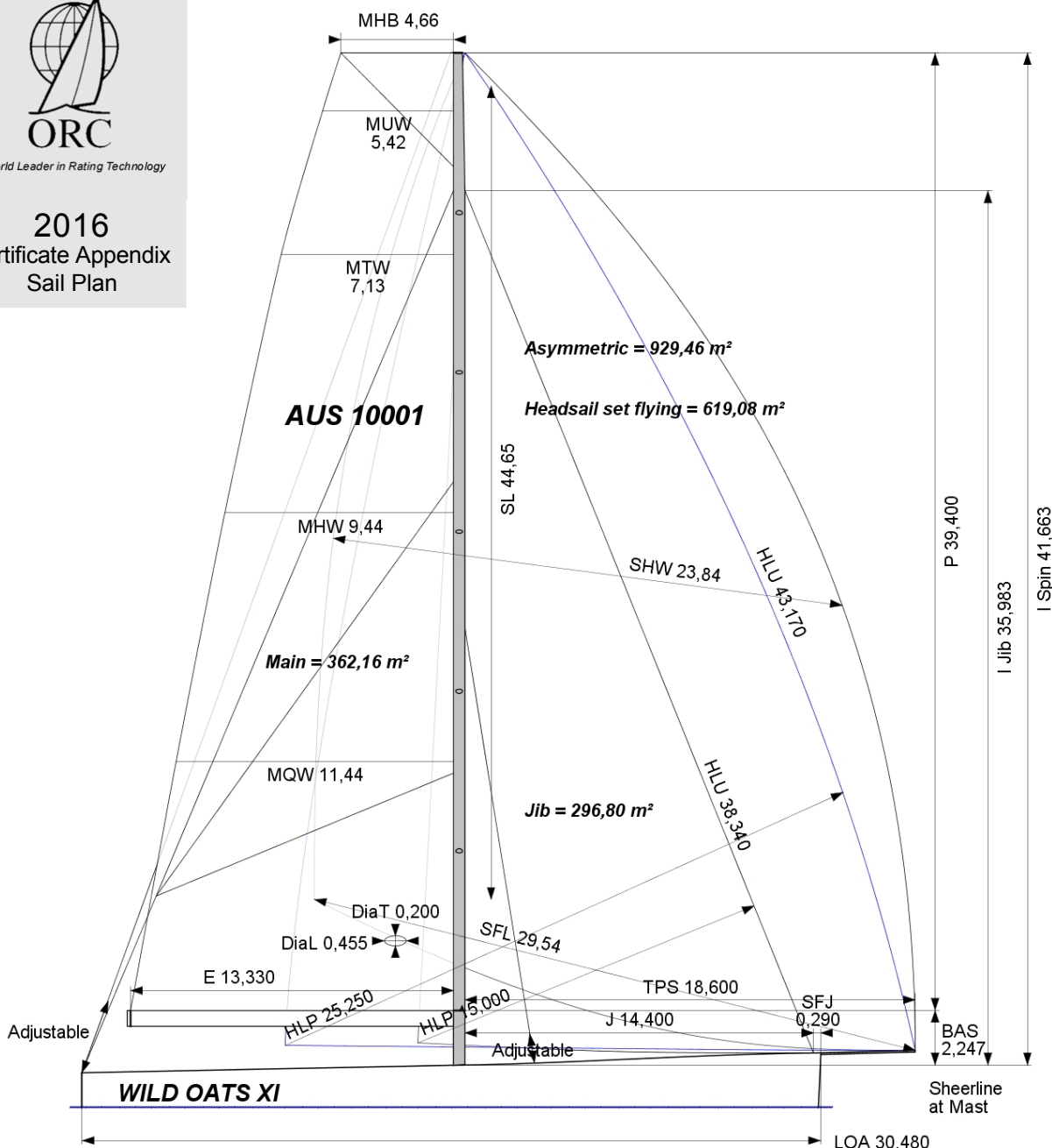
MEASUREMENT INVENTORY				
Measurer Anderson 2015				
Date 06/12/2015				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	YANMAR	4LHA-STP	
Id	Item	Weight Description		

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
4	Tank Fuel		Carbon	350.0	21.60		155.0
3	Tank Fuel		Carbon	350.0	21.60		155.0
2	Tank Water		Carbon	65.0	23.60		0.0
1	Tank Water		Carbon	65.0	23.60		0.0
Id	Item	Weight	Distance	VCG Description			
2	Battery	25.5	18.80	1 X 12v Sealed ENGINE			
1	Battery	56.0	18.80	1 X 12 v Sealed HOUSE			
Water Ballast Tanks							
Id	Volume	Distance	VCG	TCG	Description		
2	1,165	29.91	0.65	1.45	2 tanls one		
1	1,387	20.28	0.86	2.16	2 tanks one		



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Certificate Appendix
Sail Plan



SAILS INVENTORY																
MANSAIL																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	4.660	5.42	7.13	9.44	11.44	362.16	Anderson	14/12/2016	North	Carbon						
HEADSAILS																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
4	0.10	4.08	8.30	15.87	21.34	25.25	43.17	175%	619.15		Y	Anderson	14/12/2016	North	Carbon	R1
3	0.24	4.16	7.85	11.50	15.00	38.34	104%	296.84		Y		Anderson	24/11/2016	North	Carbon	Fits on Fixed Forestay
2	0.16	1.55	2.95	5.84	8.81	11.88	36.31	82%	214.54		Y	Anderson	13/04/2015	North	Carbon	Fits on inner Forestay
SYMMETRIC SPINNAKERS																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
3	44.76	44.54	44.65	23.84	29.54	929.46	asym	Anderson	14/12/2016	North	Unknown					