

BOAT Name SAIL EXCHANGE Sail Nr 7709	GPH 555.8	HULL Length Overall 11.990m Maximum Beam 3.842m Displacement 5,044kg Draft 2.572m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.003% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class Cookson 12 Designer FARR Builder Cookson Series 10/1995 Age 07/2000 Age Allowance 0.487% Offset File KZ232b.off - 01/12/2011 17:06:04 Measurement by Anderson - 23/09/2014		IMSL 10.921m VCGD -0.285m Sink 20.13kg/mm RL 10.685m VCGM -0.167m WS 26.96m² LSM0 10.594m Displacement/Length ratio 4.2422



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	539.7			604.1		
Time on Time	1.1117			1.1174		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	632.4	493.9	438.2	814.0	605.5	531.0
Time on Time	1.0674	1.3666	1.5403	0.8292	1.1148	1.2713

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	929.6	758.7	673.9	646.0	634.0	625.1	615.2
52°	613.5	510.2	473.6	461.7	456.1	453.3	444.4
60°	582.0	492.5	462.5	448.7	441.8	437.8	427.1
75°	559.2	481.9	453.1	433.0	418.1	410.2	403.1
90°	560.2	475.2	452.8	429.5	407.1	389.6	370.8
110°	555.7	469.3	435.8	410.7	394.4	379.2	353.9
120°	573.3	476.9	440.2	407.8	380.0	361.9	332.4
135°	638.7	513.3	460.4	428.2	395.1	362.7	305.2
150°	756.1	601.7	508.6	461.7	432.2	402.1	343.3
Run VMG	873.1	694.8	587.2	524.5	483.1	450.8	396.0

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Number **269700**
ORC Ref **AUS00001442**
Issued On **06/07/2018**
VPP Ver. **2018 1.00**
Valid until **30/06/2019**

Selected Courses							
Windward / Leeward	901.4	726.8	630.6	585.2	558.5	537.9	505.6
Circular Random	762.9	616.9	539.5	494.7	466.5	446.6	418.0
Coastal / Long Distance	898.5	683.7	572.4	513.1	478.4	448.8	399.5
Non Spinnaker	834.2	667.2	576.6	523.2	489.4	466.3	435.0

Crew Weight

Default 747kg
Maximum **810kg**
Minimum* **608kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	595.2	1.0081
Non Spin OSN	578.3	1.0375

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	42.3°	41.0°	38.9°	37.4°	37.4°	36.8°	36.8°
Beat VMG	3.87	4.74	5.34	5.57	5.68	5.76	5.85
52°	5.87	7.06	7.60	7.80	7.89	7.94	8.10
60°	6.19	7.31	7.78	8.02	8.15	8.22	8.43
75°	6.44	7.47	7.94	8.31	8.61	8.78	8.93
90°	6.43	7.58	7.95	8.38	8.84	9.24	9.71
110°	6.48	7.67	8.26	8.77	9.13	9.49	10.17
120°	6.28	7.55	8.18	8.83	9.47	9.95	10.83
135°	5.64	7.01	7.82	8.41	9.11	9.92	11.80
150°	4.76	5.98	7.08	7.80	8.33	8.95	10.49
Run VMG	4.12	5.18	6.13	6.86	7.45	7.99	9.09
Gybe Angles	143.7°	145.7°	150.0°	156.7°	171.4°	180.0°	180.0°

Sails Limitations

Headsails	Spinnakers
6	4

Class Division Length

CDL = **10.804**

Storm Sails Areas

Heavy Weather Jib **32.51**
Storm Jib (JL=10.09) **12.04**
Storm Trysail **15.06**

Owner

BOAT	
Name SAIL EXCHANGE	Sail Nr 7709
File 2697	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining		Flotation date 23/09/2014 SG 1.0250	
FFM 1.382	FF 1.382	SFFP 0.431	
FAM 1.070	FA 1.071	SAFP 11.560	
W1 20.0	PD1 64.0	WD 12.960	
W2 40.0	PD2 128.0	GSA 19.4	
W3 60.0	PD3 192.0	RSA 6400.0	
W4 80.0	PD4 256.0	PLM 2040.0	
LCF from stem on CL / on sheer		6.664 / 6.916	
Maximum beam station from stem		7.840	
RM Measured		144.1kg-m	
RM Default		144.5kg-m	
Limit of positive stability / Stab.Index		126.3° / 122.8	
Freeboard at mast at 4.550		1.204	



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RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	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 15.100	E 5.700	MDT1 0.125	MW 0.190
IG 15.415	J 4.550	MDL1 0.190	GO 0.220
ISP 17.280	SFJ 0.000	MDT2 0.120	BD 0.180
BAS 1.680	SPL 5.050	MDL2 0.165	MWT 156.00
FSP 0.068	TPS 5.100	TL 1.600	MCG 5.190

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.410		
Type Folding 2 blades	PBW 0.110		
Twin Screw No	PIPA 0.0035		
ST1 0.042	ST3 0.180	ST5 0.272	
ST2 0.180	ST4 0.112	EDL 2.145	

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Number 269700	ORC Ref AUS00001442
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COMMENTS	
0438548033	

MOVABLE BALLAST	
N/A	



CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0.200	1.20	2.11	3.54	4.66	50.14 51.20 $P/8 \cdot (E + 2 \cdot MQW + 2 \cdot MHW + 1.5 \cdot MTW + MUW + 0.5 \cdot MHB)$
Symmetric	SLU	SLE	SL	SHW	SFL	131.69 $SL \cdot (SFL + 4 \cdot SHW) / 6$
	17.00	17.00	17.00	9.30	9.28	
Asymmetric	SLU	SLE	SL	SHW	SFL	125.15 $AS \cdot (SFL + 4 \cdot SHW) / 6$
	18.30	16.70	17.50	8.40	9.31	

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
0.11	0.62	1.17	2.33	3.52	4.69	15.15	35.63	Y		30/08/2016	Carbon	Remeasured
0.12	0.61	1.17	2.30	3.47	4.60	15.07	34.94	Y		30/08/2016	Carbon	Remeasured

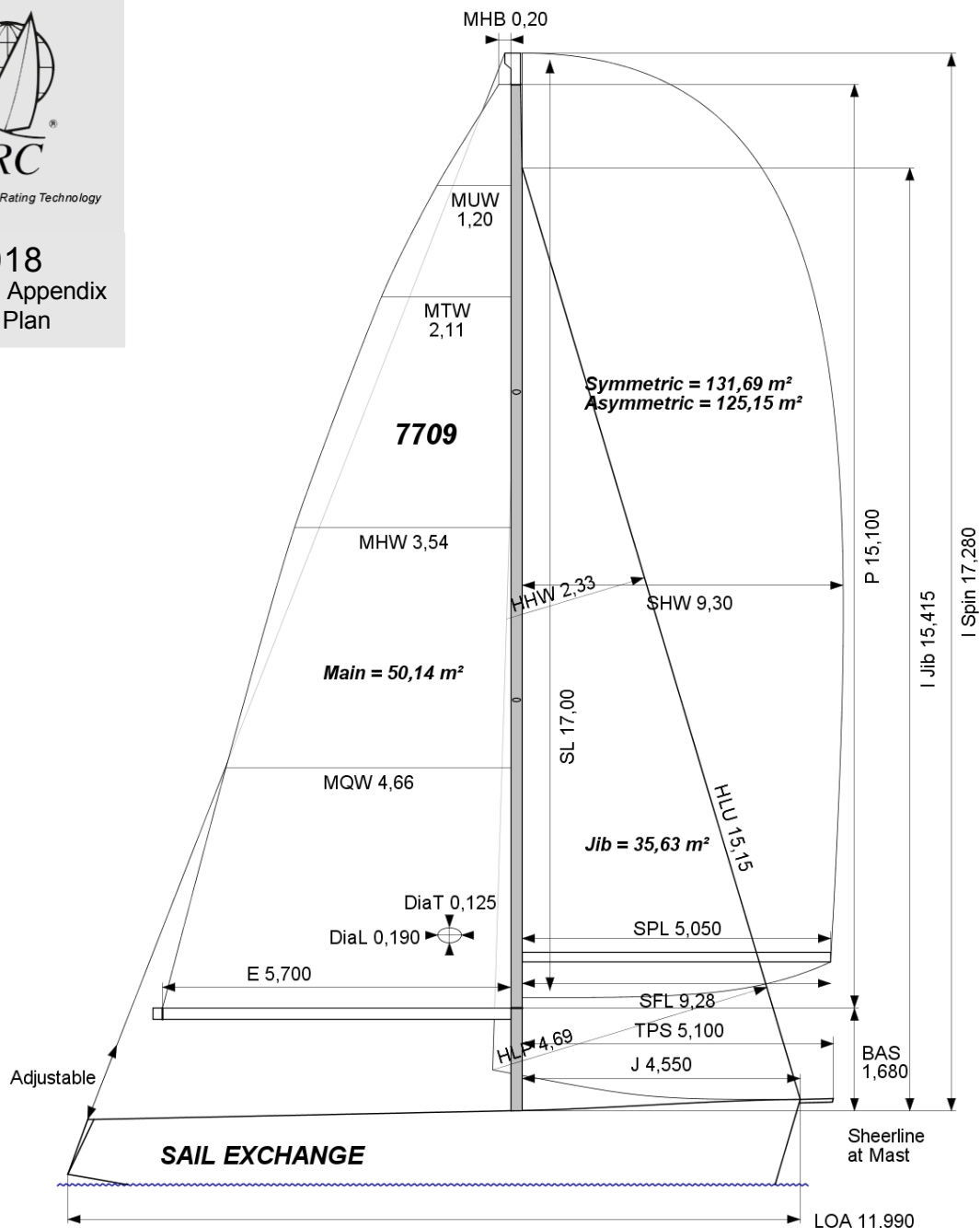
MEASUREMENT INVENTORY				
Measurer Anderson 2015				
Date 23/09/2014				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	YANMAR	3GM 29hp	
Id	Item	Weight Description		

MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtn Description
3	Tank	FUEL	S/S	100.0	8.40	40.0
2	Tank	Water	S/S	200.0	9.30	0.0
1	Tank	WATER	S/S	100.0	5.90	0.0
Id	Item	Weight	Distance	VCG Description		
2	Battery	20.0	8.30	House Battery 1 x 12v Gel		
1	Battery	12.0	6.50	Lithium Battery		
1	Misc	25.0	7.60	Oven		



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2018	0.200	1.20	2.11	3.54	4.66	50.14	Anderson	12/06/2018	HOOD	Carbon	

HEADSAILS (2)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J2	0.11	0.62	1.17	2.33	3.52	4.69	15.15	103%	35.63	Y		Guanaria	30/08/2016	Doyle	Carbon	Remeasured
J1	0.12	0.61	1.17	2.30	3.47	4.60	15.07	101%	34.94	Y		Guanaria	30/08/2016		Carbon	Remeasured

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	17.00	17.00	17.00	9.30	9.28	131.69	Guanaria	09/09/2015		Nylon	
S1	17.00	17.00	17.00	9.25	9.30	131.18	Guanaria	09/09/2015		Nylon	

ASYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
1	18.30	16.70	17.50	8.40	9.31	125.15	asym	Guanaria	31/07/2013		Unknown	
A4	15.88	15.00	15.44	7.81	8.17	101.42	asym	Guanaria	11/09/2012	Doyle	Nylon	
Code 0	15.00	14.03	14.52	5.83	7.72	75.09	asym	Guanaria	11/09/2012	MacDiarmid	Polyester	