

BOAT Name Efyderma ZARATUTRA Sail Nr ARG-4771	GPH 627,8	HULL Length Overall 10,200m Maximum Beam 3,328m Displacement 3.971kg Draft 1,950m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,000% Fwd Accommodation No Hull Construction Solid Carbon Rudder No Crew Arm Extension IMSL 9,303m VCGD 0,111m Sink 16,04kg/mm RL 8,123m VCGM 0,144m WS 20,55m² LSM0 9,064m Displacement/Length ratio 5,3326
GENERAL Class MAGIC 33 Designer J. SOTO Builder MORETI Series 07/2001 Age 07/2001 Age Allowance 0,487% Offset File MAGIC33.OFF - 10/03/2016 02:57:52 Measurement by J.C. MACULAN - 25/02/2016		



World Leader in Rating Technology

2016
ORC International
Certificate

Rating Office
PATRICIO D. GUTIERREZ
C. GRIERSON Y
COSTANERASUR
Y.C.A



SCORING OPTIONS	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
Time On Distance	612,8			686,2		
Time On Time	0,9792			0,9837		
Performance Line	PLT 0,682	PLD 48,7		PLT 0,900	PLD 251,2	
	Low 0,9449	Medium 1,2100	High 1,3551	Low 0,7266	Medium 0,9797	High 1,1240

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		1052,1	877,0	779,6	740,9	723,3	712,4	703,8
52°		683,1	575,3	526,7	511,4	504,6	501,1	493,4
60°		640,4	546,4	510,2	495,7	489,0	485,1	476,5
75°		605,0	526,6	497,1	478,1	464,5	457,2	451,2
90°		606,3	527,1	495,7	475,9	455,1	437,8	421,2
110°		630,6	529,0	491,4	462,3	441,3	427,8	407,3
120°		651,8	540,8	498,3	469,7	440,4	413,3	385,8
135°		724,7	589,1	521,7	490,3	463,6	435,7	379,4
150°		862,8	684,5	578,6	519,7	490,5	465,3	413,9
Run VMG		996,3	790,4	666,9	587,6	532,5	499,3	450,2

Selected Courses		6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Windward / Leeward		1024,2	833,7	723,3	664,3	627,9	605,9	577,0
Circular Random		859,6	696,4	609,5	559,3	528,3	507,6	480,0
Ocean for PCS		1058,1	819,4	685,2	603,2	549,5	511,4	457,2
Non Spinnaker		905,4	728,8	633,7	578,3	544,0	521,2	491,2

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	43,7°	42,7°	41,9°	40,5°	39,5°	39,4°	39,8°	
Beat VMG	3,42	4,11	4,62	4,86	4,98	5,05	5,12	
52°	5,27	6,26	6,83	7,04	7,13	7,18	7,30	
60°	5,62	6,59	7,06	7,26	7,36	7,42	7,55	
75°	5,95	6,84	7,24	7,53	7,75	7,87	7,98	
90°	5,94	6,83	7,26	7,57	7,91	8,22	8,55	
110°	5,71	6,81	7,33	7,79	8,16	8,41	8,84	
120°	5,52	6,66	7,22	7,66	8,18	8,71	9,33	
135°	4,97	6,11	6,90	7,34	7,77	8,26	9,49	
150°	4,17	5,26	6,22	6,93	7,34	7,74	8,70	
Run VMG	3,61	4,55	5,40	6,13	6,76	7,21	8,00	
Gybe Angles	144,8°	149,5°	151,6°	159,3°	180,0°	180,0°	180,0°	

Certificate
Number **477101**
ORC Ref **ARG00002124**
Issued On **10/03/2016**
VPP Ver. **2016 1.01**
Valid until **31/12/2016**

Crew Weight

Declared	598kg
Default*	598kg
Non Manual Pwr	No

Special Scoring

	ToD	ToT
Non Spin GPH	653,5	0,9181
Non Spin OSN	637,0	0,9419
N/S Perf. Line	25,4	0,619

Sails Limitations

Headsails	Spinnakers
6	3

Class Division Length
CDL = 8,714

Storm Sails Areas

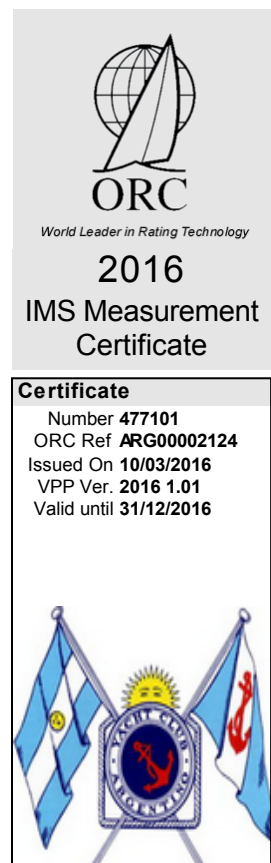
Heavy Weather Jib	22,27
Storm Jib (JL=8,35)	8,25
Storm Trysail	11,06

Owner
RAUL GIMENEZ
Roque Saenz Peña 4290
OLIVOS

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

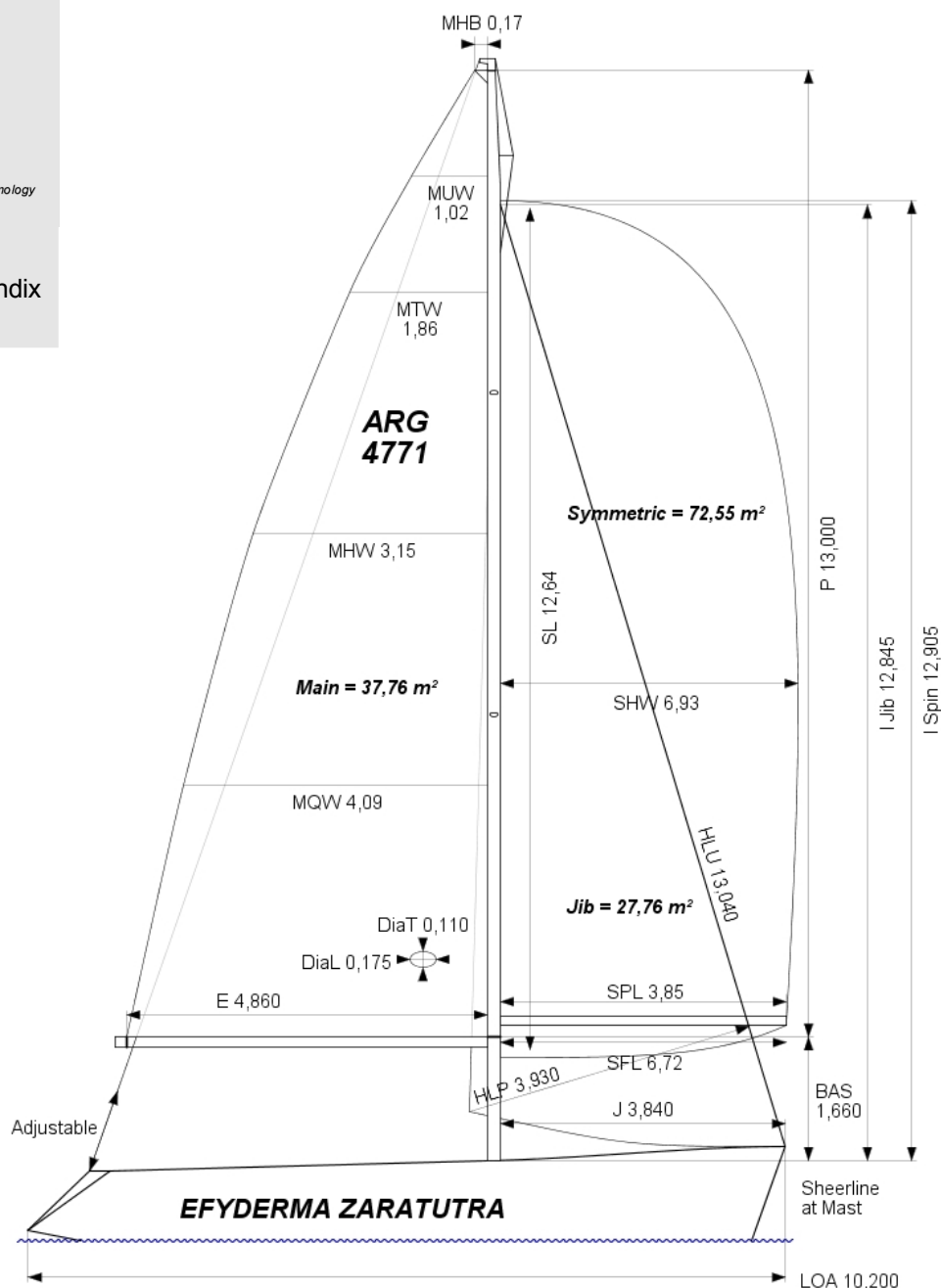
BOAT Name Efyderma Sail Nr ARG-4771 File ARG4771.dxt Data in meters/kilograms				INCLINING TEST AND FREEBOARDS Inclining Test Current Inclining Flotation date 25/02/2016 SG 1,0000 FFM 1,265 FF 1,278 SFFP 0,140 FAM 0,932 FA 0,936 SAFFP 9,100 W1 71,000 PD1 704,0 WD 9,200 W2 71,000 PD2 664,1 GSA 1,0 W3 71,000 PD3 682,9 RSA 1,0 W4 71,000 PD4 683,3 PLM 9000,0 LCF from stem on CL / on sheer 5,655 / 5,885 Maximum beam station from stem 6,550 RM Measured 75,3kg-m RM Default 91,7kg-m Limit of positive stability / Stab.Index 109,7° / 107,5 Freeboard at mast at 3,840 1,074																														
RIG Forestay Tension Aft Spreaders 2 Inner Stay None Fitted Runners 0 Carbon Mast No Jumper Struts Yes Taper Hollows No Jib Furler No Fiber Rigging No Main Furler No Lenticular Rigging No Without Backstay No Articulated Bowsprit No P 13,000 E 4,860 MDT1 0,110 MW 0,175 IG 12,845 J 3,840 MDL1 0,175 GO 0,175 ISP 12,905 SFJ 0,000 MDT2 0,105 BD 0,130 BAS 1,660 SPL 3,850 MDL2 0,113 MWT 130,00 FSP 0,006 TPS TL 1,590 MCG 4,620				PROPELLER Installation Strut PRD 0,420 Type Folding 2 blades PBW 0,100 Twin Screw No PIPA 0,0032 ST1 0,048 ST3 0,170 ST5 0,270 ST2 0,170 ST4 0,100 EDL 1,870																														
MIZZEN RIG AND SAILS N/A				MOVEABLE BALLAST N/A																														
COMMENTS 				CENTERBOARD N/A																														
SAILS (Maximum Areas)																																		
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula																										
	0,170	1,02	1,86	3,15	4,09	37,76	38,65	$P/8 \cdot (E + 2 \cdot MQW + 2 \cdot MHW + 1.5 \cdot MTW + MUW + 0.5 \cdot MHB)$																										
Symmetric	SLU	SLE	SL	SHW	SFL	72,55		$SL \cdot (SFL + 4 \cdot SHW) / 6$																										
Asymmetric																																		
Not Available																																		
HEADSAILS Area = $0.1125 \cdot HLU \cdot (1.445 \cdot HLP + 2 \cdot HQW + 2 \cdot HHW + 1.5 \cdot HTW + HUW + 0.5 \cdot HHB)$ <table border="1"> <thead> <tr> <th>HHB</th> <th>HUW</th> <th>HTW</th> <th>HHW</th> <th>HQW</th> <th>HLP</th> <th>HLU</th> <th>Area</th> <th>Btn</th> <th>Fly</th> <th>Meas.Date</th> <th>Material</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>0,06</td> <td>0,68</td> <td>1,29</td> <td>2,23</td> <td>3,07</td> <td>3,93</td> <td>13,04</td> <td>27,76</td> <td>Y</td> <td></td> <td>10/03/2016</td> <td>Kevlar</td> <td>* Copied from legacy *</td> </tr> </tbody> </table>									HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment	0,06	0,68	1,29	2,23	3,07	3,93	13,04	27,76	Y		10/03/2016	Kevlar	* Copied from legacy *
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment																						
0,06	0,68	1,29	2,23	3,07	3,93	13,04	27,76	Y		10/03/2016	Kevlar	* Copied from legacy *																						
MEASUREMENT INVENTORY Measurer JC MACULAN JCM Date 25/02/2016 Comment				MEASUREMENT INVENTORY																														
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>	<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>																				
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>			B7	Tank	AGUA	FLEX	40,0	7,47	0,00	9-9																					
C4	Engine	VOLVO PENTA	D1-30			E4	Tank	GAS OIL	INOX	50,0	3,62	0,00	25-9																					
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>																													





World Leader in Rating Technology

2016 Certificate Appendix Sail Plan



SAILS INVENTORY

MAINSAIL

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0,170	1,02	1,86	3,15	4,09	37,76		10/03/2016	NORTH	Kevlar	* Copied from legacy

HEADSAILS

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1	0,06	0,68	1,29	2,23	3,07	3,93	13,04	102%	27,76	Y			10/03/2016	NORTH	Kevlar	* Copied from legacy *

SYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S3	12,64	12,64	12,64	6,93	6,72	72,55		10/03/2016	NORTH	Nylon	* Copied from legacy *

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
----	-----	-----	----	-----	-----	------	------	----------	-----------	-------------	----------	---------