

BOAT Name AZAHAR Sail Nr GBR-4115 R	GPH 648,1	HULL Length Overall 12,787m Maximum Beam 3,956m Displacement 12.234kg Draft 1,871m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,644% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension 0,00
GENERAL Class SWAN 42 Designer HOLLAND Builder NAUTOR SWAN Series 01/1985 Age 02/1985 Age Allowance 0,488% Offset File US18940.OFF - 03/07/1993 6:30:58 Measurement by BELTRAN/DEVESA - 16/11/2012		IMSL 10,950m VCGD 0,113m Sink 26,08kg/mm RL 7,418m VCGM 0,093m WS 35,81m² LSM0 10,957m Displacement/Length ratio 9,3002



2016
ORC International
Certificate

Rating Office
R.F.E.V.
Luis de salazar,9
28002 Madrid



SCORING OPTIONS	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	630,3			707,9		
Time On Time	0,9519			0,9535		
Performance Line	0,916	137,1		0,739	151,3	
Triple Number	Low 0,8948	Medium 1,1790	High 1,3528	Low 0,6878	Medium 0,9374	High 1,1254

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1134,5	945,5	845,0	775,3	730,8	704,9	680,6
52°	725,8	616,2	547,3	506,8	488,6	479,7	472,0
60°	678,6	579,2	515,8	487,6	472,9	464,4	457,3
75°	640,9	546,2	495,4	473,6	460,2	449,5	435,8
90°	642,6	548,1	496,3	471,3	460,7	449,4	428,8
110°	667,9	554,2	492,5	466,6	449,2	435,1	417,9
120°	688,5	570,3	499,7	470,6	452,3	435,8	407,7
135°	754,5	618,7	532,2	487,1	464,8	448,2	416,1
150°	892,0	706,1	601,1	529,8	488,0	466,7	436,0
Run VMG	1030,0	815,3	693,4	607,7	547,5	502,0	459,1

Certificate
Number **411501**
ORC Ref **ESP00016281**
Issued On **22/02/2016**
VPP Ver. **2016 1.00**
Valid until **31/12/2016**

Crew Weight
Declared **600kg**
Default* **784kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	649,6	0,9236
Double H.OSN	632,8	0,9482
Non Spin GPH	676,4	0,8870
Non Spin OSN	657,3	0,9128
N/S Perf. Line	74,3	0,759

Selected Courses							
	1082,3	880,4	769,2	691,5	639,2	603,4	569,8
Windward / Leeward							
Circular Random	901,5	725,1	628,7	571,0	534,4	510,3	481,3
Ocean for PCS	888,8	706,7	604,6	542,6	503,4	477,4	443,7
Non Spinnaker	952,1	761,1	655,6	591,7	550,8	523,5	490,0

Sails Limitations

Headsails	Spinnakers
6	3

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	45,5°	43,6°	43,5°	44,6°	43,3°	42,2°	40,9°
Beat VMG	3,17	3,81	4,26	4,64	4,93	5,11	5,29
52°	4,96	5,84	6,58	7,10	7,37	7,50	7,63
60°	5,30	6,22	6,98	7,38	7,61	7,75	7,87
75°	5,62	6,59	7,27	7,60	7,82	8,01	8,26
90°	5,60	6,57	7,25	7,64	7,81	8,01	8,40
110°	5,39	6,50	7,31	7,72	8,01	8,27	8,61
120°	5,23	6,31	7,20	7,65	7,96	8,26	8,83
135°	4,77	5,82	6,76	7,39	7,74	8,03	8,65
150°	4,04	5,10	5,99	6,80	7,38	7,71	8,26
Run VMG	3,49	4,42	5,19	5,92	6,57	7,17	7,84
Gybe Angles	145,8°	150,4°	152,2°	153,2°	163,2°	180,0°	180,0°

Class Division Length
CDL = **9,185**

Storm Sails Areas

Heavy Weather Jib	38,17
Storm Jib (JL=10,93)	14,14
Storm Trysail	11,16

Owner

BOAT	
Name AZHAR	Sail Nr GBR-4115 R
File GBR4115R.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 09/11/2012		SG 1,0270	
FFM 1,154	FF 1,182	SFFP 0,893	
FAM 1,019	FA 1,001	SAFP 11,991	
W1 120,60	PD1 527,7	WD 12,640	
W2 120,60	PD2 526,0	GSA 1,0	
W3 120,60	PD3 527,3	RSA 1,0	
W4 120,60	PD4 527,4	PLM 9000,0	
LCF from stem on CL / on sheer		7,084 / 7,347	
Maximum beam station from stem		7,525	
RM Measured		227,7kg·m	
RM Default		238,0kg·m	
Limit of positive stability / Stab.Index		105,3° / 114,3	
Freeboard at mast at 5,500		1,034	



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Measurements Datasheet

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay Adjustable	Runners 1		
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 14,860	E 4,290	MDT1 0,130	MW 0,195
IG 16,600	J 5,080	MDL1 0,195	GO 0,260
ISP 16,600	SFJ 0,420	MDT2 0,130	BD 0,180
BAS 1,740	SPL 5,100	MDL2 0,130	MWT
FSP 0,090	TPS 5,400	TL 0,000	MCG

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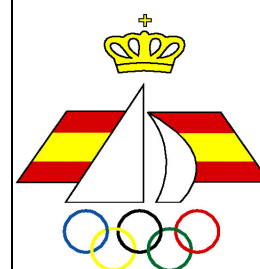
MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0,400		
Type Feathering 2 blades	PBW 0,253		
Twin Screw No	PIPA 0,0064		
PSA 18,440	PHL 0,134	ST3 0,122	ESL 1,065
PSD 0,031	ST1 0,038	ST4 0,075	
PHD 0,075	ST2 0,122	ST5 0,242	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,090	0,86	1,57	2,74	3,54	37,35	37,83	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16,84	16,84	16,84	9,11	8,90	127,25		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL				
	16,80	16,30	16,55	8,65	8,64	119,27		AS · (SFL + 4·SHW) / 6	

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	0,96	1,86	3,73	5,66	7,60	15,94	60,19					
0,09	0,84	1,63	3,28	5,02	6,84	15,96	53,53				Unknow	

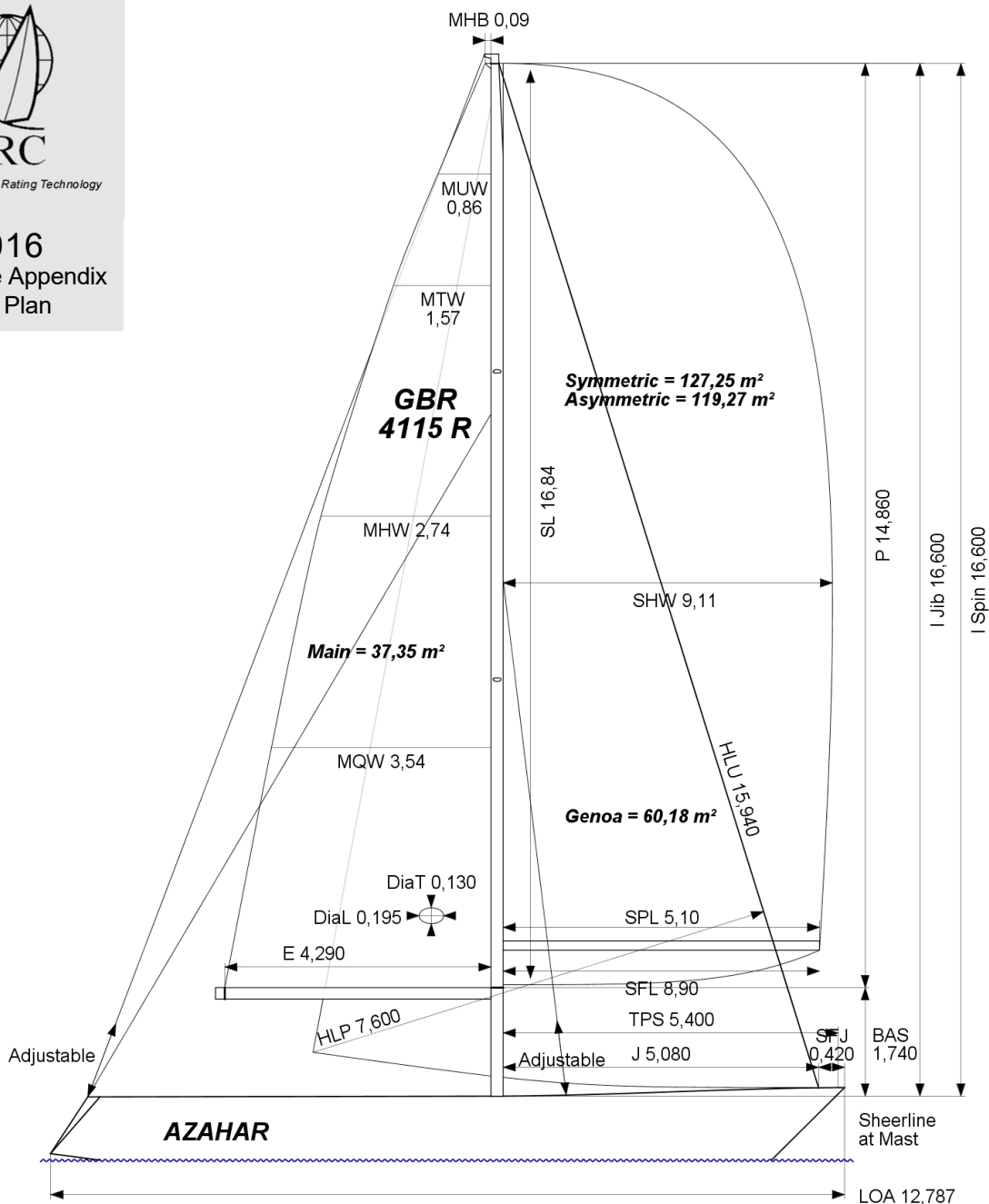
MEASUREMENT INVENTORY				
Measurer JBELTRAN/DEVESA				
Date 09/11/2010				
Comment				
Id	Item	Weight	Distance	VCG Description
+	Anchor	90,0	0,00	ANCLA+
Id	Item	Maker	Model	
1	Engine	VOLVO PENTA	50 CV	
Id	Item	Weight Description		

MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtm Description
5	Tank	GASOIL		150,0	4,87	0,0
4	Tank	GASOIL		150,0	4,87	0,0
3	Tank	AGUA		25,0	5,57	0,0
2	Tank	AGUA		50,0	4,27	0,0
1	Tank	AGUA		75,0	4,07	0,0
Id	Item	Weight	Distance	VCG Description		
1	Battery	24,0	6,07	BATT		
2	Battery	24,0	6,07	BATT		
3	Battery	24,0	6,07	BATT		
2	Misc		2,47	Aguas Negras 30 lts (v acio)		
1	Misc		5,97	Aguas Negras 30 lts (v acio)		



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Sail Plan



SAILS INVENTORY

MAINSAIL

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,090	0,86	1,57	2,74	3,54	37,35					

HEADSAILS

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,10	0,96	1,86	3,73	5,66	7,60	15,94	150%	60,19							
2	0,09	0,84	1,63	3,28	5,02	6,84	15,96	135%	53,53							Unknown

SYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2	16,84	16,84	16,84	9,11	8,90	127,25				Unknown	
1	15,11	15,11	15,11	8,05	7,81	100,76					

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
1	16,80	16,30	16,55	8,65	8,64	119,27	asym				Unknown	
2	17,15	14,80	15,98	8,39	8,00	110,65	asym				Unknown	
3	16,68	15,60	16,14	6,60	8,75	94,55	asym				Unknown	