

BOAT Name MIA Sail Nr ITA-3701	GPH 618.7	HULL Length Overall 11.310m Maximum Beam 3.680m Displacement 6,472kg Draft 2.010m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.153% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class GRAND SOLEIL 37 BC Designer BOTIN/CARKEEK Builder DEL PARDO Series 03/2006 Age 03/2006 Age Allowance 0.422% Offset File MORGAN11.off - 04/04/2016 18:50:56 Measurement by - 03/05/2019		IMSLS 10.169m VCGD 0.139m Sink 21.60kg/mm RL 8.559m VCGM 0.292m WS 28.10m² LSM0 9.969m Displacement/Length ratio 6.5326



2019
ORC International
Certificate

Rating Office

Offshore
Racing
Congress

COPY ONLY
Invalid for
RACING

World Leader In Rating Technology

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	601.6			672.8		
Time on Time	0.9974			1.0032		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	710.8	547.1	489.8	921.9	675.6	586.4
Time on Time	0.9497	1.2338	1.3780	0.7322	0.9991	1.1510

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1061.3	875.9	770.1	721.8	704.8	698.6	684.3
52°	686.9	578.6	520.2	498.2	491.3	488.2	481.6
60°	644.8	549.4	503.6	484.9	477.7	474.2	469.3
75°	613.3	528.1	491.8	473.2	461.1	454.2	448.7
90°	619.3	527.3	485.7	469.3	453.6	439.6	421.6
110°	624.7	518.6	477.0	453.8	435.4	423.8	406.6
120°	642.8	529.1	481.7	456.4	433.4	412.5	387.5
135°	710.9	576.9	505.0	472.6	449.6	426.4	382.7
150°	845.2	670.6	566.4	504.0	473.9	452.1	409.7
Run VMG	976.0	774.4	653.7	575.2	522.2	485.2	441.7

Certificate
Number **37011**
ORC Ref **ITA00052233**
Issued On **06/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **685kg**
Maximum **720kg**
Minimum* **540kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	629.0	0.9539
Double H.OSN	613.3	0.9783
Non Spin GPH	650.4	0.9225
Non Spin OSN	631.5	0.9501

Selected Courses							
Windward / Leeward	1018.6	825.1	711.9	648.5	613.5	591.9	563.0
Circular Random	852.6	688.0	600.0	549.4	518.8	498.9	473.3
Coastal / Long Distance	1014.4	773.9	640.9	566.5	528.7	499.3	452.1
Non Spinnaker	910.4	728.6	629.9	572.3	537.0	514.2	485.7

Sails Limitations

Headsails	Spinnakers
5	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	43.4°	41.9°	41.3°	40.4°	39.8°	39.5°	39.9°
Beat VMG	3.39	4.11	4.67	4.99	5.11	5.15	5.26
52°	5.24	6.22	6.92	7.23	7.33	7.37	7.48
60°	5.58	6.55	7.15	7.42	7.54	7.59	7.67
75°	5.87	6.82	7.32	7.61	7.81	7.93	8.02
90°	5.81	6.83	7.41	7.67	7.94	8.19	8.54
110°	5.76	6.94	7.55	7.93	8.27	8.49	8.85
120°	5.60	6.80	7.47	7.89	8.31	8.73	9.29
135°	5.06	6.24	7.13	7.62	8.01	8.44	9.41
150°	4.26	5.37	6.36	7.14	7.60	7.96	8.79
Run VMG	3.69	4.65	5.51	6.26	6.89	7.42	8.15
Gybe Angles	144.6°	149.0°	150.7°	156.3°	172.8°	180.0°	180.0°

Class Division Length
CDL = **9.364**

Storm Sails Areas

Heavy Weather Jib	30.27
Storm Jib (JL=9.74)	11.21
Storm Trysail	12.85

Owner

BOAT	
Name MIA	Sail Nr ITA-3701
File I3701	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay None Fitted	Runners 0
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 14.220	E 5.160 MDT1 0.110 MW 0.202
IG 14.887	J 4.340 MDL1 0.202 GO 0.227
ISP 14.922	SFJ 0.000 MDT2 0.107 BD 0.161
BAS 1.607	SPL 4.450 MDL2 0.173 MWT 168.00
FSP 0.066	TPS 0.000 TL 0.570 MCG 5.303

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 03/05/2019	SG 1.0250	
FFM 1.441	FF 1.440	SFFP 0.254
FAM 1.084	FA 1.086	SAFP 10.690
W1 89.9	PD1 562.3	WD 11.400
W2 89.9	PD2 582.9	GSA 1.0
W3 89.9	PD3 587.8	RSA 1.0
W4 89.9	PD4 579.7	PLM 9000.0
LCF from stem on CL / on sheer	6.319 / 6.573	
Maximum beam station from stem	7.067	
RM Measured	139.6kg-m	
RM Default	165.6kg-m	
Limit of positive stability / Stab.Index	104.2° / 106.1	
Freeboard at mast at 4.340	1.231	



ORC
Offshore Racing Congress
World leader in rating technology

2019
IMS Measurement
Certificate

MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0.446	
Type Folding 2 blades	PBW 0.113	
Twin Screw No	PIPA 0.0040	
ST1 0.065	ST3 0.180	ST5 0.336
ST2 0.180	ST4 0.110	EDL 2.364

Certificate	
Number 37011	
ORC Ref ITA00052233	
Issued On 06/05/2019	
VPP Ver. 2019 1.01	
Valid until 31/12/2019	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



World Leader In Rating Technology

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.200	1.15	2.01	3.38	4.39	44.38	45.43	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.97	14.97	14.97	7.97	8.00	99.50		SL · (SFL + 4·SHW) / 6	
Asymmetric									
Not Available									

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	0.73	1.36	2.45	3.49	4.52	14.72	35.16	N	N	09/02/2018	Unknow	
0.10	0.74	1.38	2.45	3.47	4.51	14.32	34.18	N	N	02/05/2018	Unknow	

MEASUREMENT INVENTORY				
Measurer 149				
Date 03/05/2019				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	VOLVO PENTA	40 HP	
Id	Item	Weight Description		

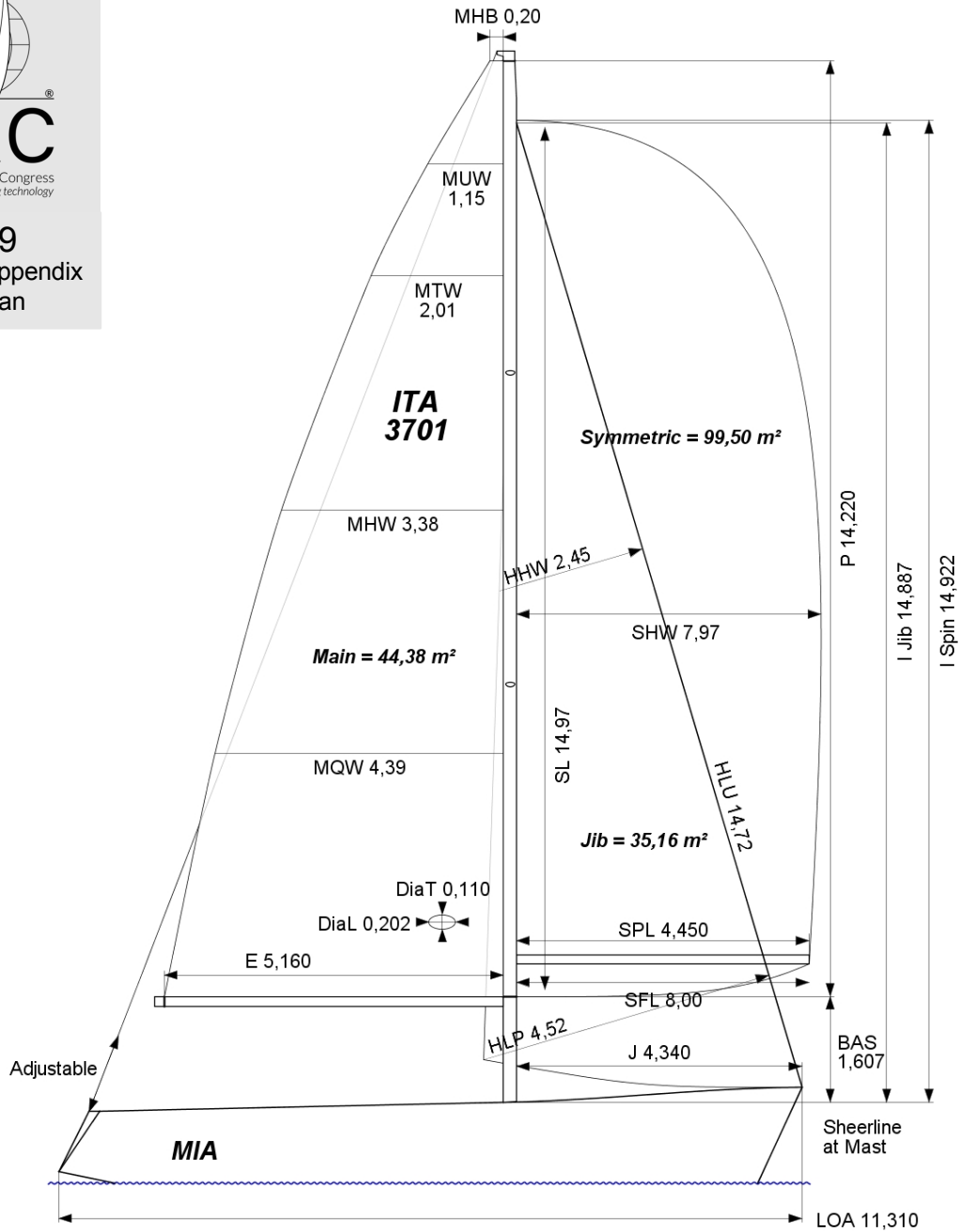
MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtn Description
B	Tank	GASOLIO	INOX	140.0	9.00	15.0 L
A	Tank	ACQUA	PVC	200.0	7.34	0.0 VUOTO
Id	Item	Weight	Distance	VCG Description		
A	Battery	40.0	8.40	2 X 100 AH		
A	Misc	15.0	8.04	BOILER		



ORC

Offshore Racing Congress
World leader in rating technology

2019
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
C	0.20	1.15	2.01	3.38	4.39	44.38		30/04/2019		Unknown	
A	0.19	1.11	1.96	3.30	4.26	43.42		02/05/2018		Unknown	

HEADSAILS (2)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
I	0.10	0.73	1.36	2.45	3.49	4.52	14.72	104%	35.16	N	N		09/02/2018		Unknown	
H	0.10	0.74	1.38	2.45	3.47	4.51	14.32	104%	34.18	N	N		02/05/2018		Unknown	

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
H	14.97	14.97	14.97	7.97	8.00	99.51		09/02/2018		Unknown	
G	14.72	14.72	14.72	7.63	7.43	93.11		08/09/2016		Unknown	
F	14.66	14.66	14.66	7.56	6.80	90.51		15/06/2010		Unknown	

ASYMMETRIC SPINNAKERS (0)

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