BOAT

Name **MIA MIA**
Sail Nr **EST 685**

GPH

656,7

GENERAL

Class	**First 30**
Designer	**Juan Yacht Design**
Builder	**Beneteau**
Series	**01.2010**
Age	**01.2011**
Age Allowance	**0,163%**
Offset File	**f244.off - 3.03.2011 9:35:38**
Measurement by	**Tetsmann - 29.07.2015**

HULL

Length Overall	**9,515 m**
Maximum Beam	**3,208 m**
Displacement	**3 801 kg**
Draft	**1,915 m**
IMS Reg. Division	**Cruiser/Racer**
Dynamic Allowance	**0,188%**
Fwd Accommodation	**Yes**
Hull Construction	**Solid**
Carbon Rudder	**No**
Crew Arm Extension	

IMS L	**8,952**	VCGD	**0,032**	Sink	**16,62 kg/mm**
RL	**7,542**	VCGM	**0,030**	WS	**21,52 m²**

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SCORING OPTIONS

	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
Time On Distance	**636,0**			**710,5**		
Time On Time	**0,9433**			**0,9501**		
	PLT		PLD	PLT		PLD
Performance Line	**0,767**		**79,5**	**0,727**		**149,4**
	Low	Medium	High	Low	Medium	High
Triple Number	**0,8801**	**1,1671**	**1,3359**	**0,6733**	**0,9413**	**1,1125**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**1186,0**	**967,7**	**847,4**	**768,9**	**731,1**	**716,1**	**713,6**
52°	**760,6**	**629,5**	**559,0**	**523,6**	**507,5**	**501,8**	**499,3**
60°	**708,3**	**591,6**	**535,2**	**508,5**	**492,5**	**484,9**	**481,3**
75°	**666,7**	**563,2**	**519,0**	**496,4**	**477,1**	**459,9**	**446,3**
90°	**661,3**	**550,0**	**506,3**	**490,6**	**474,9**	**457,2**	**422,6**
110°	**657,8**	**543,9**	**501,1**	**471,1**	**441,7**	**426,2**	**404,4**
120°	**675,9**	**556,0**	**507,4**	**478,4**	**448,8**	**420,2**	**386,7**
135°	**748,9**	**608,6**	**535,0**	**500,6**	**473,9**	**445,9**	**390,1**
150°	**899,0**	**708,9**	**598,4**	**532,2**	**500,3**	**474,7**	**422,4**
Run VMG	**1038,1**	**818,6**	**688,5**	**598,6**	**538,7**	**505,0**	**454,6**
Selected Courses							
Windward / Leeward	**1112,1**	**893,1**	**768,0**	**683,8**	**634,9**	**610,6**	**584,1**
Circular Random	**918,1**	**735,8**	**636,5**	**577,7**	**540,9**	**516,6**	**486,0**
Ocean for PCS	**978,8**	**768,6**	**650,5**	**577,7**	**529,5**	**494,8**	**443,7**
Non Spinnaker	**990,4**	**786,7**	**674,3**	**607,2**	**565,1**	**537,7**	**504,8**

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	**44,7°**	**43,4°**	**42,6°**	**41,5°**	**40,5°**	**39,9°**	**40,1°**
Beat VMG	**3,04**	**3,72**	**4,25**	**4,68**	**4,92**	**5,03**	**5,04**
52°	**4,73**	**5,72**	**6,44**	**6,88**	**7,09**	**7,17**	**7,21**
60°	**5,08**	**6,09**	**6,73**	**7,08**	**7,31**	**7,42**	**7,48**
75°	**5,40**	**6,39**	**6,94**	**7,25**	**7,55**	**7,83**	**8,07**
90°	**5,44**	**6,55**	**7,11**	**7,34**	**7,58**	**7,87**	**8,52**
110°	**5,47**	**6,62**	**7,18**	**7,64**	**8,15**	**8,45**	**8,90**
120°	**5,33**	**6,47**	**7,09**	**7,52**	**8,02**	**8,57**	**9,31**
135°	**4,81**	**5,92**	**6,73**	**7,19**	**7,60**	**8,07**	**9,23**
150°	**4,00**	**5,08**	**6,02**	**6,76**	**7,20**	**7,58**	**8,52**
Run VMG	**3,47**	**4,40**	**5,23**	**6,01**	**6,68**	**7,13**	**7,92**
Gybe Angles	**145,0°**	**149,7°**	**153,5°**	**164,5°**	**175,5°**	**178,5°**	**177,7°**

Certificate

Number	**EST685**
ORC Ref	**EST00000908**
Issued On	**30.07.2015**
VPP Ver.	**2015 1.01**
Valid until	**31.12.2015**

Crew Weight

Declared	**630 kg**
Default*	**549 kg**
Non Manual Pwr	**No**

Special Scoring

	ToD	ToT
Non Spin GPH	**696,9**	**0,8610**
Non Spin OSN	**672,0**	**0,8929**
N/S Perf. Line	**50,9**	**0,683**

Sails Limitations

Headsails	Spinnakers
6	**3**

Dacron Sails

Class Division Length

CDL = **8,248**

Storm Sails Areas

Heavy Weather Jib	**21,98**
Storm Jib (JL=8,29)	**8,14**
Storm Trysail	**8,67**

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BOAT

Name	**MIAMIA**	Sail Nr	**EST 685**
File	**Est0685.dxt**	Data in	**meters/kilograms**

RIG

Forestay Tension	**Fixed**	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	**Yes**
Articulated Bowsprit	**No**		

P	**12,020**	E	**4,120**	MDT1	**0,115**	MW	**0,170**
IG	**12,715**	J	**4,210**	MDL1	**0,170**	GO	**0,185**
ISP	**13,435**	SFJ		MDT2	**0,115**	BD	**0,150**
BAS	**1,675**	SPL	**4,530**	MDL2	**0,135**	MWT	**107,00**
FSP	**0,062**	TPS	**4,530**	TL	**0,320**	MCG	**4,640**

MIZZEN RIG AND SAILS

N/A

COMMENTS

Ex.GER6470

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **29.07.2015** SG **1,0020**

FFM	**1,295**	FF	**1,302**	SFFP	**0,350**
FAM	**0,990**	FA	**0,994**	SAFP	**9,142**

W1	**42,100**	PD1	**170,0**	WD	**11,200**
W2	**42,100**	PD2	**173,0**	GSA	**12,6**
W3	**42,100**	PD3	**172,0**	RSA	**4298,7**
W4	**42,100**	PD4	**175,0**	PLM	**2005,0**

LCF from stem on CL / on sheer	**5,358 / 5,565**
Maximum beam station from stem	**7,222**
RM Measured / Default	**95,6 / 90,9**
Limit of positive stability / Stab.Index	**120,1° / 118,3**
Freeboard at mast at 4,210	**1,158**

PROPELLER

Installation	**Strut**	PRD	**0,410**
Type	**Feathering 2 blades**	PBW	**0,125**
Twin Screw		PIPA	**0,0033**

ST1	**0,050**	ST3	**0,180**	ST5	**0,260**
ST2	**0,180**	ST4	**0,112**	EDL	**1,920**

MOVEABLE BALLAST

N/A

CENTERBOARD

N/A

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Measurements Datasheet

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SAILS (Maximum Areas)

Mainsail	HB	MGT	MGU	MGM	MGL	Area	Area (r)	Formula
	0,130	0,77	1,41	2,53	3,36	28,32	28,74	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)
Symmetric	**SL**	**SMG**	**SF**					
	13,10	7,65	7,10			82,31		SL · (SF + 4·SMG) / 6

Asymmetric

Not Available

HEADSAILS

Area = 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)

JH	JGT	JGU	JGM	JGL	LPG	JL	Area	Btn	Fly	Meas.Date	Material	Comment
0,07	0,61	1,22	2,32	3,39	4,37	12,43	28,26			10.07.2015	Unknow	
0,07	0,53	1,05	2,09	3,12	4,11	12,40	25,81			10.07.2015	Unknow	

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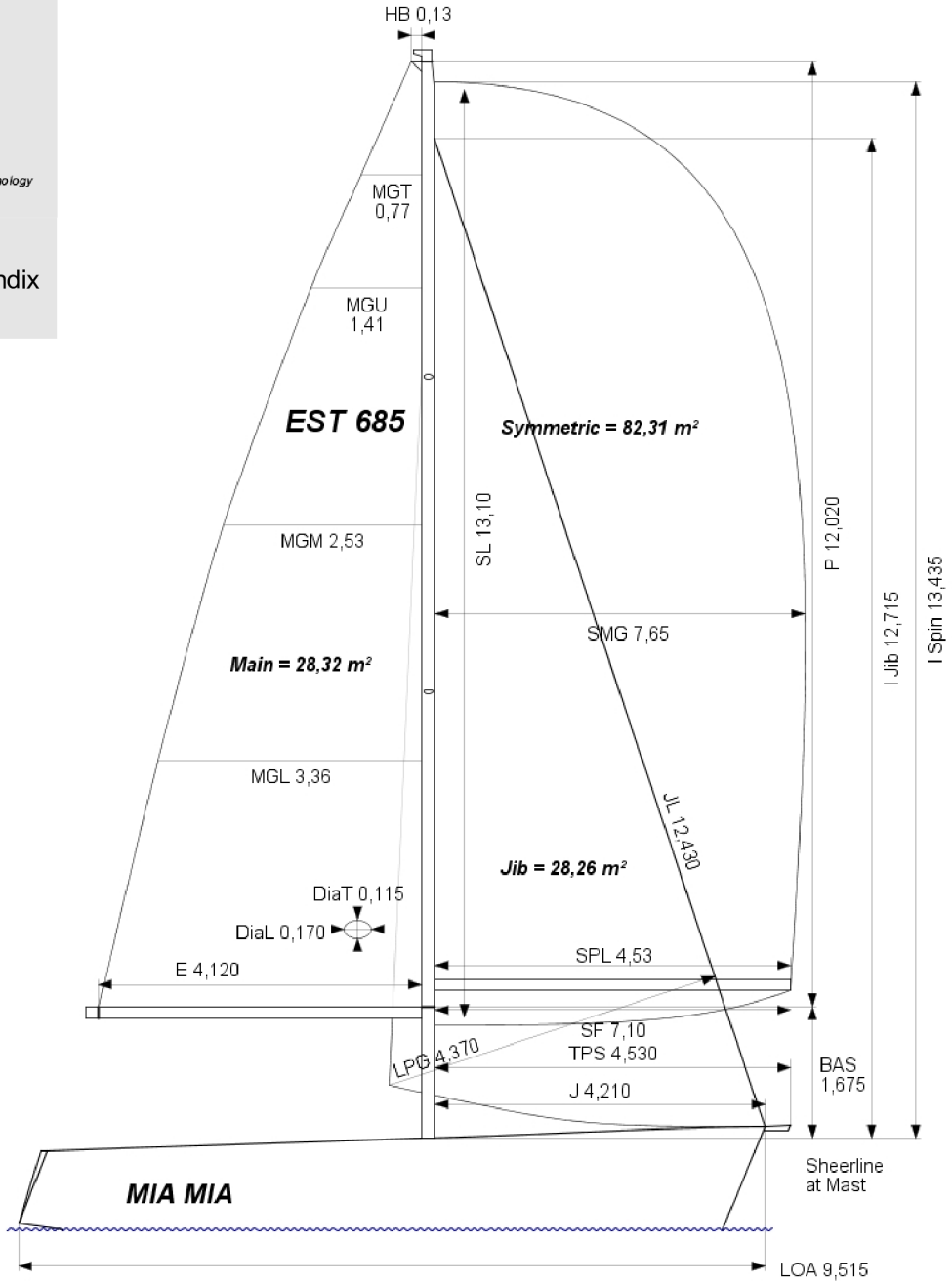
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,130	0,77	1,41	2,53	3,36	28,32	EST 1	10.07.2015		Unknown	

HEADSAILS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
2	0,07	0,61	1,22	2,32	3,39	4,37	12,43	104%	28,26			EST 1	10.07.2015		Unknow	
1	0,07	0,53	1,05	2,09	3,12	4,11	12,40	98%	25,81			EST 1	10.07.2015		Unknow	

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
246607	13,10	7,65	7,10	82,31			North Sails	Unknown	

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment

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