BOAT

Name **MAD MAX**
Sail Nr **ARG-5300**

GPH

599,8

GENERAL

Class	**MUMM 36**
Designer	**BRUCE FARR**
Builder	**AST. DEL SUR**
Series	**09/1993**
Age	**09/1993**
Age Allowance	**0,487%**
Offset File	**ARG5300NB.off - 11/05/2016 11:26:10**
Measurement by	**JC MACULAN - 11/09/2013**

HULL

Length Overall	**10,900m**
Maximum Beam	**3,610m**
Displacement	**3.767kg**
Draft	**2,303m**
IMS Reg. Division	**Performance**
Dynamic Allowance	**0,096%**
Fwd Accommodation	**No**
Hull Construction	**Cored**
Carbon Rudder	**Yes**
Crew Arm Extension	

IMSL	**9,845m**	VCGD	**-0,240m**	Sink	**16,78kg/mm**
RL	**9,171m**	VCGM	**-0,188m**	WS	**22,97m²**
LSM0	**9,604m**	Displacement/Length ratio			**4,2524**

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	**582,5**			**655,4**		
Time On Time	**1,0300**			**1,0299**		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	**693,4**	**530,3**	**464,8**	**902,6**	**657,3**	**568,0**
Time on Time	**0,9735**	**1,2729**	**1,4522**	**0,7478**	**1,0269**	**1,1883**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**1027,6**	**842,2**	**737,9**	**697,3**	**679,7**	**670,6**	**656,5**
52°	**667,7**	**553,9**	**504,0**	**487,2**	**479,7**	**475,5**	**465,7**
60°	**625,9**	**526,5**	**489,1**	**471,2**	**461,8**	**456,0**	**446,0**
75°	**592,0**	**508,2**	**476,7**	**451,9**	**432,6**	**422,3**	**413,8**
90°	**594,4**	**508,0**	**473,9**	**449,7**	**423,7**	**401,3**	**378,4**
110°	**613,9**	**507,3**	**467,0**	**432,0**	**411,5**	**393,8**	**367,1**
120°	**633,5**	**518,2**	**474,5**	**439,6**	**404,2**	**377,4**	**347,7**
135°	**706,0**	**565,8**	**498,4**	**465,5**	**432,9**	**400,7**	**334,2**
150°	**843,3**	**664,3**	**556,9**	**498,1**	**467,1**	**437,2**	**378,1**
Run VMG	**973,7**	**767,1**	**643,1**	**566,7**	**515,7**	**480,4**	**425,0**
Selected Courses							
Windward / Leeward	**1000,7**	**804,6**	**690,5**	**632,0**	**597,7**	**575,5**	**540,7**
Circular Random	**832,2**	**669,4**	**581,7**	**530,2**	**497,4**	**474,6**	**442,8**
Ocean for PCS	**1023,6**	**787,0**	**653,3**	**571,0**	**516,5**	**477,2**	**420,3**
Non Spinnaker	**888,8**	**709,7**	**612,0**	**554,0**	**517,2**	**492,0**	**457,4**

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	**44,0°**	**42,2°**	**41,1°**	**39,7°**	**39,0°**	**38,4°**	**38,1°**
Beat VMG	**3,50**	**4,27**	**4,88**	**5,16**	**5,30**	**5,37**	**5,48**
52°	**5,39**	**6,50**	**7,14**	**7,39**	**7,50**	**7,57**	**7,73**
60°	**5,75**	**6,84**	**7,36**	**7,64**	**7,80**	**7,89**	**8,07**
75°	**6,08**	**7,08**	**7,55**	**7,97**	**8,32**	**8,52**	**8,70**
90°	**6,06**	**7,09**	**7,60**	**8,01**	**8,50**	**8,97**	**9,51**
110°	**5,86**	**7,10**	**7,71**	**8,33**	**8,75**	**9,14**	**9,81**
120°	**5,68**	**6,95**	**7,59**	**8,19**	**8,91**	**9,54**	**10,35**
135°	**5,10**	**6,36**	**7,22**	**7,73**	**8,32**	**8,99**	**10,77**
150°	**4,27**	**5,42**	**6,46**	**7,23**	**7,71**	**8,23**	**9,52**
Run VMG	**3,70**	**4,69**	**5,60**	**6,35**	**6,98**	**7,49**	**8,47**
Gybe Angles	**141,1°**	**147,6°**	**150,0°**	**156,8°**	**173,8°**	**180,0°**	**180,0°**

ORC
World Leader in Rating Technology

2017
ORC International Certificate

Rating Office

PATRICIO D. GUTIERREZ
C. GRIERSON Y
COSTANERA SUR
Y.C.A

Certificate

Number **530001**
ORC Ref **ARG00004519**
Issued On **10/03/2017**
VPP Ver. **2017 1.00**
Valid until **31/12/2017**

Crew Weight

Declared	**640kg**
Default*	**650kg**
Non Manual Pwr	**No**

Special Scoring

	ToD	ToT
Double H.GPH	**607,2**	**0,9881**
Double H.OSN	**591,6**	**1,0143**
Non Spin GPH	**631,9**	**0,9495**
Non Spin OSN	**614,0**	**0,9772**

Sails Limitations

Headsails	Spinnakers
5	**3**

Class Division Length

CDL = **9,509**

Storm Sails Areas

Heavy Weather Jib	**26,76**
Storm Jib (JL=9,15)	**9,91**
Storm Trysail	**10,87**

Owner

JULIAN SOMODI
BUENOS AIRES

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

Signature

BOAT

Name	**MAD MAX**	Sail Nr	**ARG-5300**
File	**ARG5300**	Data in	**meters/kilograms**

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	**13,400**	E	**4,635**	MDT1	**0,118**	MW	**0,223**
IG	**14,080**	J	**4,010**	MDL1	**0,223**	GO	**0,223**
ISP	**14,280**	SFJ	**0,000**	MDT2	**0,113**	BD	**0,150**
BAS	**1,783**	SPL	**4,250**	MDL2	**0,195**	MWT	**134,00**
FSP	**0,067**	TPS		TL	**1,250**	MCG	**5,440**

MIZZEN RIG AND SAILS

N/A

COMMENTS

INCLINING TEST AND FREEBOARDS

Inclining Test **Boom Inclining**

Flotation date **09/05/2016** SG **1,0000**

FFM	**1,135**	FF	**1,142**	SFFP	**0,414**
FAM	**0,948**	FA	**0,953**	SAFP	**10,320**

W1	**90,0**	PD1	**676,5**	WD	**9,900**
W2	**90,0**	PD2	**674,6**	GSA	**1,0**
W3	**90,0**	PD3	**677,2**	RSA	**1,0**
W4	**90,0**	PD4	**677,3**	PLM	**9000,0**

LCF from stem on CL / on sheer	**6,000 / 6,241**
Maximum beam station from stem	**7,150**
RM Measured	**103,7kg·m**
RM Default	**103,0kg·m**
Limit of positive stability / Stab.Index	**123,1° / 118,3**
Freeboard at mast at 4,010	**1,013**

PROPELLER

Installation	**Strut**	PRD	**0,432**
Type	**Folding 2 blades**	PBW	**0,108**
Twin Screw	**No**	PIPA	**0,0034**

ST1	**0,041**	ST3	**0,180**	ST5	**0,290**
ST2	**0,180**	ST4	**0,113**	EDL	**0,940**

MOVEABLE BALLAST

N/A

CENTERBOARD

N/A

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2017 IMS Measurement Certificate

Certificate

Number **530001**
ORC Ref **ARG00004519**
Issued On **10/03/2017**
VPP Ver. **2017 1.00**
Valid until **31/12/2017**

SAILS (Maximum Areas)

Mainsail	**MHB**	**MUW**	**MTW**	**MHW**	**MQW**	**Area**	**Area (r)**	**Formula**
	0,205	1,02	1,82	3,03	3,92	37,58	38,39	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	**SLU**	**SLE**	**SL**	**SHW**	**SFL**			
	14,02	14,02	14,02	7,50	7,54	87,72		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
0,13	0,62	1,17	2,21	3,19	4,14	14,23	30,77	Y		07/11/2016	Kevlar	N-3DL
0,10	0,58	1,10	2,15	3,20	4,21	14,32	30,71	Y		30/07/2015	Kevlar	NUEVO
0,09	0,57	1,11	2,16	3,22	4,16	14,16	30,35	Y		21/06/2012	Kevlar	
0,10	0,58	1,05	2,01	2,99	3,99	13,54	27,37	Y		02/06/2011	Vectran	
0,11	0,49	0,91	1,80	2,47	3,72	12,40	22,08	Y		11/01/2010	Kevlar	

MEASUREMENT INVENTORY

Measurer **JCM / PG JCM**
Date **11/09/2013**
Comment

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*

Id	*Item*	*Maker*	*Model*
Y	Engine	YANMAR	3YM30 29

Id	*Item*	*Weight*	*Description*

MEASUREMENT INVENTORY

Id	*Item*	*Tank Use*	*Tank Type*	*Capcty*	*Dist.*	*VCG*	*Condtn*	*Description*
T	Tank	AGUA	PLASTICO	100,0	5,20	0,00	~~0,0~~	PLASTIMO
T	Tank	GAS OIL	INOX	60,0	7,40	0,00	~~5,0~~	

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*
BAT	Battery	18,0	7,00		BATERIA 65 AP
BAT	Battery	18,0	7,00		BATERIA 65 AP

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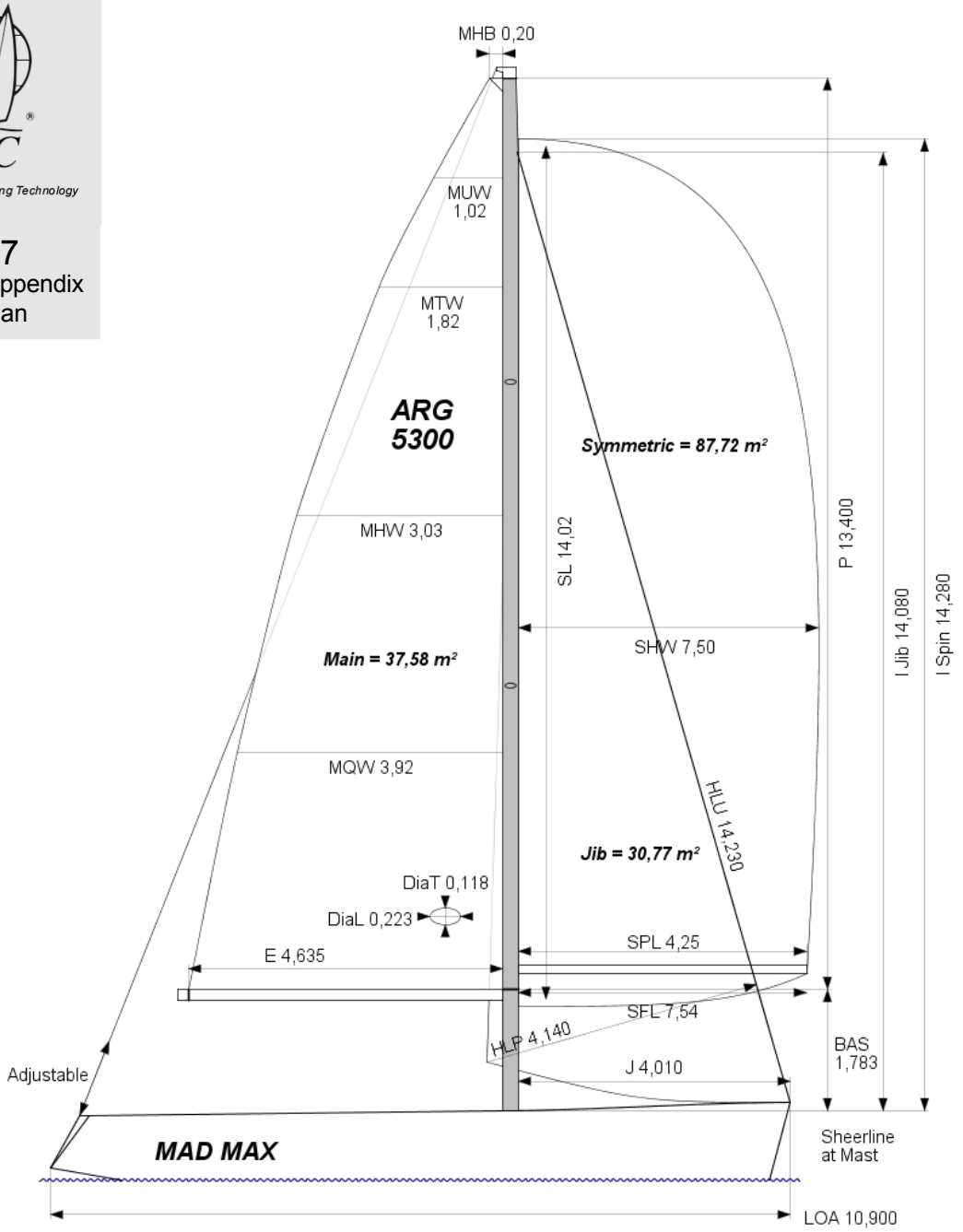
2017
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M7	0,205	1,02	1,82	3,03	3,92	37,50	JCM	07/11/2016	NORTH	Kevlar	N-3DL

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1LM	0,13	0,62	1,17	2,21	3,19	4,14	14,23	103%	30,77	Y		JCM	07/11/2016	NORTH	Kevlar	N-3DL
C2 n	0,10	0,58	1,10	2,15	3,20	4,21	14,32	105%	30,71	Y		NP	30/07/2015	QUANTUM	Kevlar	NUEVO
JIB T	0,09	0,57	1,11	2,16	3,22	4,16	14,16	104%	30,35	Y		PG	21/06/2012	QUANTUM	Kevlar	
C3	0,10	0,58	1,05	2,01	2,99	3,99	13,54	100%	27,37	Y			02/06/2011	QUANTUM	Vectran	
C4	0,11	0,49	0,91	1,80	2,47	3,72	12,40	93%	22,08	Y			11/01/2010	QUANTUM	Kevlar	

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2-3	14,02	14,02	14,02	7,50	7,54	87,72	JCM	07/11/2016	QUANTUM	Nylon	
S3-2	14,02	14,02	14,02	7,33	7,58	86,22		13/01/2016	QUANTUM	Nylon	

ASYMMETRIC SPINNAKERS (0)

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