BOAT

Name **MASCATO**
Sail Nr **ESP-1437**

GPH

691.7

GENERAL

Class	**CONTENTION 33**
Designer	**D. PETERSON**
Builder	**SOUTHERN OCEAN**
Series	**01/1975**
Age	**06/1976**
Age Allow ance	**0.487%**
Offset File	**G1039.BOF - 11/07/1988 20:17:32**
Measurement by	**- 20/06/2016**

HULL

Length Overall	**10.011m**
Maximum Beam	**3.162m**
Displacement	**4,956kg**
Draft	**1.853m**
Plan Review	
IMS Reg. Division	**Cruiser/Racer**
Dynamic Allow ance	**0.330%**
Hull Construction	**Solid**
Carbon Rudder	**No**
Crew Arm Extension	

IMSL	**8.162m**	VCGD	**-0.117m**	Sink	**13.95kg/mm**
RL	**7.010m**	VCGM	**-0.137m**	WS	**20.94m²**
LSM0	**8.438m**	Displacement/Length ratio			**8.2492**

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	**671.9**			**744.6**		
Time on Time	**0.8930**			**0.9065**		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	**788.6**	**613.7**	**552.2**	**1008.1**	**749.0**	**652.9**
Time on Time	**0.8560**	**1.0999**	**1.2223**	**0.6696**	**0.9012**	**1.0339**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**1142.8**	**964.0**	**854.8**	**797.5**	**774.7**	**764.1**	**765.6**
52°	**757.4**	**645.5**	**585.0**	**560.9**	**549.8**	**544.9**	**542.7**
60°	**720.3**	**615.8**	**569.3**	**548.8**	**537.2**	**530.8**	**527.0**
75°	**695.3**	**596.4**	**557.9**	**538.2**	**524.3**	**513.5**	**501.4**
90°	**704.3**	**598.5**	**554.7**	**534.5**	**519.8**	**506.0**	**483.9**
110°	**713.3**	**590.8**	**543.8**	**519.2**	**499.1**	**485.0**	**468.1**
120°	**731.1**	**601.9**	**548.1**	**521.5**	**499.1**	**478.7**	**451.6**
135°	**794.9**	**654.0**	**570.7**	**536.6**	**513.2**	**490.9**	**451.2**
150°	**925.4**	**742.4**	**631.9**	**566.3**	**536.3**	**514.7**	**474.1**
Run VMG	**1068.6**	**856.9**	**728.7**	**641.5**	**580.6**	**545.5**	**503.2**
Selected Courses							
Windward / Leeward	**1105.7**	**910.4**	**791.7**	**719.5**	**677.7**	**654.8**	**634.4**
Circular Random	**946.7**	**767.1**	**671.3**	**616.2**	**583.1**	**562.3**	**538.1**
Coastal / Long Distance	**1102.0**	**856.3**	**716.1**	**634.4**	**593.0**	**562.4**	**515.7**
Non Spinnaker	**1001.6**	**806.0**	**700.2**	**638.5**	**600.8**	**577.0**	**549.2**

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	**42.0°**	**40.5°**	**40.9°**	**39.8°**	**39.0°**	**38.6°**	**39.4°**
Beat VMG	**3.15**	**3.73**	**4.21**	**4.51**	**4.65**	**4.71**	**4.70**
52°	**4.75**	**5.58**	**6.15**	**6.42**	**6.55**	**6.61**	**6.63**
60°	**5.00**	**5.85**	**6.32**	**6.56**	**6.70**	**6.78**	**6.83**
75°	**5.18**	**6.04**	**6.45**	**6.69**	**6.87**	**7.01**	**7.18**
90°	**5.11**	**6.02**	**6.49**	**6.74**	**6.93**	**7.11**	**7.44**
110°	**5.05**	**6.09**	**6.62**	**6.93**	**7.21**	**7.42**	**7.69**
120°	**4.92**	**5.98**	**6.57**	**6.90**	**7.21**	**7.52**	**7.97**
135°	**4.53**	**5.50**	**6.31**	**6.71**	**7.02**	**7.33**	**7.98**
150°	**3.89**	**4.85**	**5.70**	**6.36**	**6.71**	**6.99**	**7.59**
Run VMG	**3.37**	**4.20**	**4.94**	**5.61**	**6.20**	**6.60**	**7.15**
Gybe Angles	**147.0°**	**151.5°**	**151.0°**	**159.0°**	**180.0°**	**180.0°**	**180.0°**

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ORC International Certificate

Rating Office

Offshore Racing Congress

Certificate

Number **143701**
ORC Ref **03510000LI0**
Issued On **26/06/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default	540kg
Maximum	**520kg**
Minimum*	**390kg**

**when applied by the NoR and SI*

Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	**722.2**	**0.8308**
Non Spin OSN	**700.0**	**0.8572**

Sails Limitations

Headsails	Spinnakers
5	**4**

Woven Polyester

Class Division Length

CDL = **7.585**

Storm Sails Areas

Heavy Weather Jib	**23.07**
Storm Jib (JL=8.50)	**8.55**
Storm Trysail	**6.09**

Owner

BOAT

Name	**MASCATO**	Sail Nr	**ESP-1437**
File	**E1437**	Data in	**meters/kilograms**

RIG

Forestay Tension	**Aft**	Spreaders	**1**
Inner Stay	**None Fitted**	Runners/Checkstays	**0**
Carbon Mast	**No**	Jib Furler	**No**
Fiber Rigging	**No**	Main Furler	**No**
Non-Circular Rigging	**No**		
Articulated Bowsprit	**No**		

P	**11.600**	E	**3.000**	MDT1	**0.150**	MW	**0.215**
IG	**13.070**	J	**4.220**	MDL1	**0.215**	GO	**0.215**
ISP	**13.070**	SFJ		MDT2	**0.150**	BD	**0.150**
BAS	**1.170**	SPL	**4.170**	MDL2	**0.165**	MWT	
FSD	**0.022**	TPS		TL	**3.300**	MCG	

INCLINING TEST AND FREEBOARDS

Inclining Test **Boom Inclining** LCFD

Flotation date **25/05/2017** SG **1.0250**

FFM	**1.090**	FF	**1.090**	SFFP	**1.081**
FAM	**0.960**	FA	**0.960**	SAFP	**9.500**
W1	**57.0**	PD1	**155.5**	WD	**2.800**
W2	**57.0**	PD2	**157.1**	GSA	**1.0**
W3	**57.0**	PD3	**162.3**	RSA	**1.0**
W4	**57.0**	PD4	**165.5**	PLM	**9000.0**

LCF from stem on CL / on sheer	**5.507 / 5.714**
Maximum beam station from stem	**6.126**
RM Measured	**78.6kg·m**
RM Default	**68.8kg·m**
Limit of positive stability / Stab.Index	**126.7° / 129.6**
Freeboard at mast at 4.220	**0.984**

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MIZZEN RIG AND SAILS

N/A

PROPELLER

Installation	**Shaft exposed**	PRD	**0.415**
Type	**Feathering 2 blades**	PBW	
Twin Screw	**No**	PIPA	**0.0058**

PSA	**28.900**	PHL	**0.130**	ST3	**0.082**	ESL	**0.670**
PSD	**0.025**	ST1	**0.020**	ST4	**0.057**		
PHD	**0.064**	ST2	**0.082**	ST5	**0.160**		

Certificate

Number **143701**
ORC Ref **03510000LI0**
Issued On **26/06/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

COMMENTS

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

SAILS (Maximum Areas)

Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula
	0.16	0.71	1.21	1.93	2.50	21.11	21.37	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	**SLU**	**SLE**	**SL**	**SHW**	**SFL**			
	13.00	13.00	13.00	7.51	6.20	78.52		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	Flying	Meas.Date	Material	Comment
0.08	0.77	1.50	3.00	4.76	6.20	12.81	39.69		No	25/05/2017	Dacron	

MEASUREMENT INVENTORY

Measurer **ESP 24**
Date **25/05/2017**
Comment **CON LA BOTAVARA**
Internal Ballast total = 0.0

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

Id	*Item*	*Weight*	*Description*

MEASUREMENT INVENTORY

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

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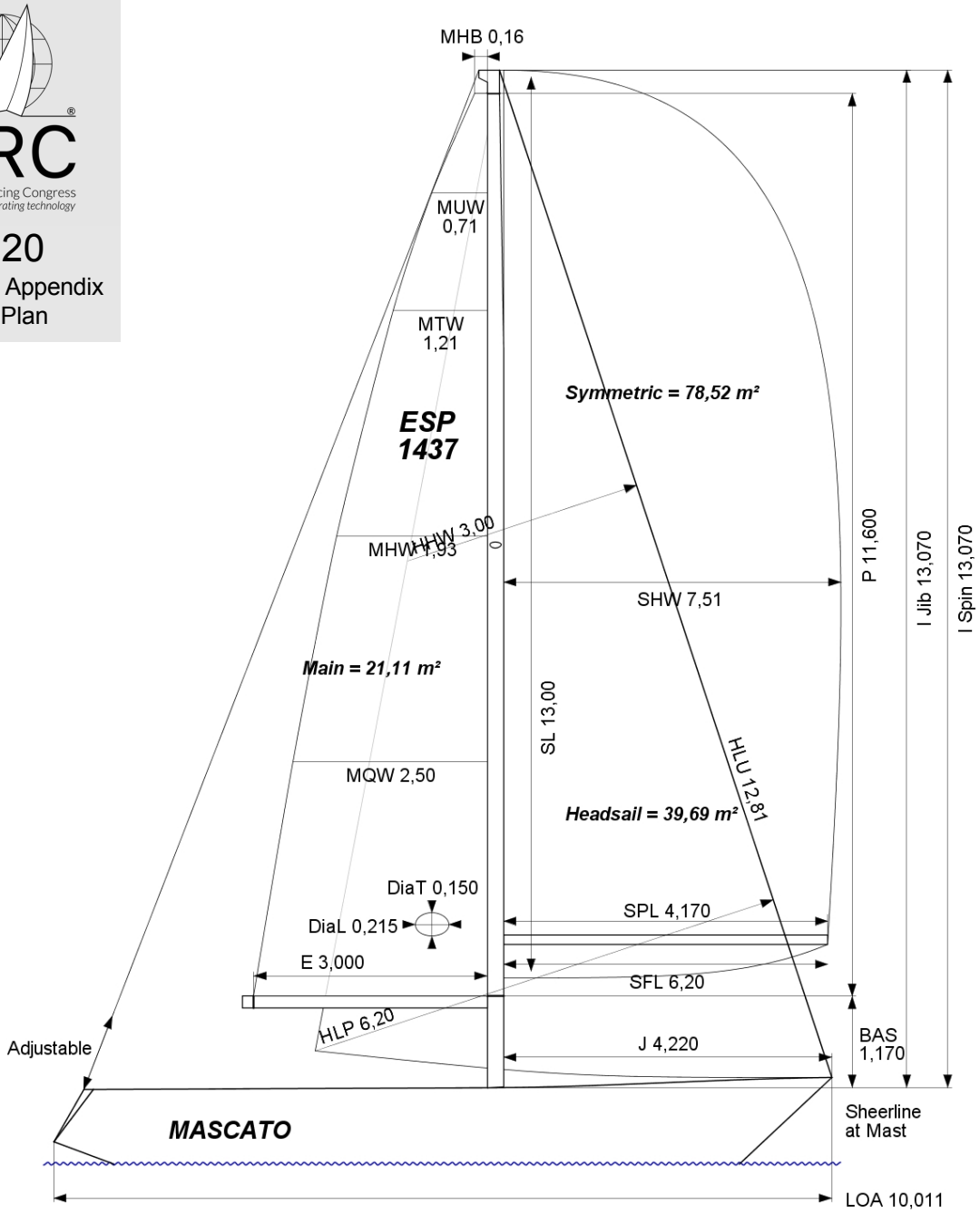
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
001	0.16	0.71	1.21	1.93	2.50	20.98		25/05/2017		Dacron	

HEADSAILS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
001	0.08	0.77	1.50	3.00	4.76	6.20	12.81	147%	39.69		No		25/05/2017		Dacron	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
001	13.00	13.00	13.00	7.51	6.20	78.52		25/05/2017			

ASYMMETRIC SPINNAKERS (0)

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