



World Leader in Rating Technology

2018 ORC Club Certificate

Rating Office
Hellenic Sailing Federation
Offshore Committee
Επιτροπή
Ανοικτής Θαλάσσης
Ελληνικής
Ιστιοπλοϊκής Ομοσπονδίας

Certificate
Number **000419**
Issued On **3/5/2018**
ORC Ref **GRE01009650**
VPP Ver. **2018 1.00**
Valid until **28/2/2019**

Crew Weight

Default	493kg
Maximum	450kg
Minimum*	338kg

*when applied by the NoR and SI
Non Manual Pwr **No**

Special Scoring

ToD	ToT
Non Spin GPH 780,4	0,7688
Non Spin OSN 752,0	0,7978

Sails Limitations

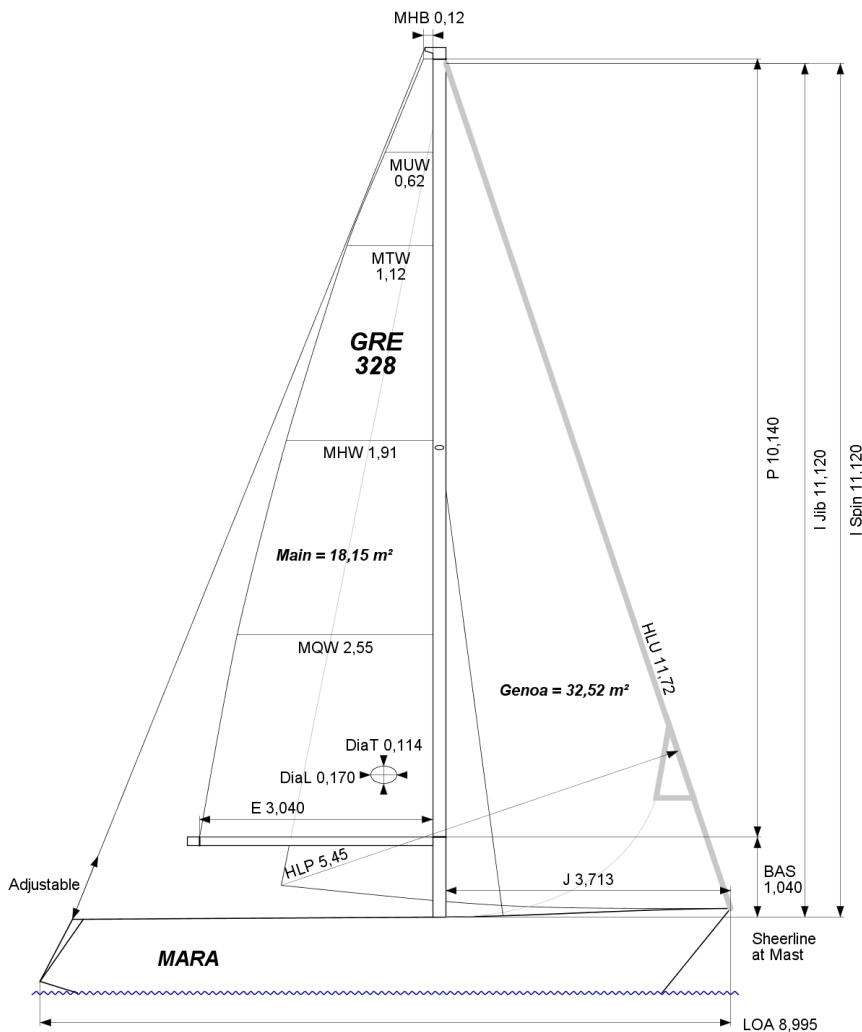
Headsails **1** Spinnakers **0**
Dacron Sails

Spinnaker configuration
Symmetric: **No**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length
CDL = **6,780**

Stability (Estimated)
Limit Positive Stab.: **114,9°**
Stability Index: **115,9**

Owner



BOAT Name MARA Sail Nr GRE-328		GPH 780,4	HULL Data File GR328 LOA 8,995m Offset File H168.BOF MB 3,220m Displacement 4,538kg Draft 1,833m				
CLASS Class NEREIS 30 Designer VAN DE STADT Builder AKROPRORO Series 03/1981 Age Date 01/1989 Age Allowance 0,487%			IMS Division Cruiser/Racer Dynamic All. 0,620% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No				
COMMENTS			IMSL 7,732m VCGD 0,221m Sink 13,74kg/mm RL 5,827m VCGM 0,052m WS 19,19m² LSM0 7,911m Displacement/Length ratio 9,1658 Water Ballast 0 Trim Tab No BLR Index 0,0000				
PROPELLER Installation Shaft exposed PRD 0,340 Type Solid 3 blades PIPA 0,0144			CENTERBOARD N/A				
SCORING OPTIONS							
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD			
Time on Distance	752,0			834,4			
Time on Time	0,7978			0,8090			
Triple Number	Low	Medium	High	Low	Medium	High	
Time on Distance	924,9	684,5	592,1	1193,0	846,2	702,8	
Time on Time	0,7298	0,9861	1,1401	0,5658	0,7977	0,9604	

BOAT	
Name MARA	Sail Nr GRE-328
File GR328	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Club Estimated VCG		
Flotation date 12/04/2001		SG
FFM 1,095	FF 1,104	SFFP 0,450
FAM 0,963	FA 0,969	SAFP 8,434
LCF from stem on CL / on sheer		5,043 / 5,289
Maximum beam station from stem		5,147
RM Measured		73,3kg·m
RM Default		71,2kg·m
Limit of positive stability / Stab.Index		114,9° / 115,9
Freeboard at mast at 3,713		0,990

RIG			
Forestay Tension Aft	Spreaders 1		
Inner Stay Fixed	Runners 0		
Carbon Mast No	Jumper Struts None		
Taper Hollows No	Jib Furler Yes		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 10,140	E 3,040	MDT1 0,114	MW
IG 11,120	J 3,713	MDL1 0,170	GO
ISP 11,120	SFJ 0,000	MDT2 0,114	BD
BAS 1,040	SPL 3,830	MDL2 0,170	MWT
FSP -3,000	TPS	TL 0,000	MCG



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2018 Measurements Datasheet

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0,340		
Type Solid 3 blades	PBW		
Twin Screw No	PIPA 0,0144		
PSA	PHL	ST3	ESL
PSD	ST1	ST4	
PHD	ST2	ST5	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ORC	0,120	0,62	1,12	1,91	2,55	18,15					* Copied from legacy					
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
ORC						5,45	0,00	147%	32,52							* Copied from legacy *
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				



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2018

ORC Club Certificate Appendix

BOAT	
Name	MARA
Certificate Number	000419
Sail Nr	GRE-328
Issued On	3/5/2018

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1305,4	1083,2	962,3	874,8	826,2	805,8	799,1
52°	854,4	723,2	639,2	595,3	575,3	565,6	560,6
60°	809,9	687,6	611,7	578,4	561,3	550,8	543,7
75°	777,4	659,1	593,5	565,4	548,3	535,2	517,9
90°	784,8	664,4	593,7	563,6	541,6	523,8	499,1
110°	841,7	698,9	610,2	569,6	546,9	528,2	493,0
120°	896,8	737,2	636,8	581,6	554,7	535,2	498,8
135°	1016,1	808,7	694,5	614,5	573,4	550,2	513,9
150°	1173,8	906,6	764,1	670,6	604,2	569,2	529,9
Run VMG	1351,2	1032,5	853,3	742,2	660,9	603,0	549,1

Selected Courses							
Windward / Leeward	1328,3	1057,9	907,8	808,5	743,6	704,4	674,1
Circular Random	1100,9	878,6	755,9	682,2	636,1	606,4	572,2
Coastal / Long Distance	1330,6	996,1	817,3	704,7	642,8	602,6	548,2
Non Spinnaker	1100,9	878,6	755,9	682,2	636,1	606,4	572,2

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	43,3°	41,5°	41,4°	41,7°	40,5°	39,7°	39,5°
Beat VMG	2,76	3,32	3,74	4,12	4,36	4,47	4,51
52°	4,21	4,98	5,63	6,05	6,26	6,36	6,42
60°	4,44	5,24	5,89	6,22	6,41	6,54	6,62
75°	4,63	5,46	6,07	6,37	6,57	6,73	6,95
90°	4,59	5,42	6,06	6,39	6,65	6,87	7,21
110°	4,28	5,15	5,90	6,32	6,58	6,82	7,30
120°	4,01	4,88	5,65	6,19	6,49	6,73	7,22
135°	3,54	4,45	5,18	5,86	6,28	6,54	7,01
150°	3,07	3,97	4,71	5,37	5,96	6,32	6,79
Run VMG	2,66	3,49	4,22	4,85	5,45	5,97	6,56
Gybe Angles	156,2°	164,1°	170,6°	173,0°	173,2°	176,8°	179,1°