

BOAT Name ASTRAPI Sail Nr GRE-01	GPH 630,2	HULL Length Overall 10,632m Maximum Beam 3,494m Displacement 4.110kg Draft 1,999m IMS Reg. Division Performance Dynamic Allowance 0,128% Wind Accommodation No Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class JEANNEAU OD Designer D.ANDRIEU Builder JEANNEAU Series 03/1991 Age 03/1991 Age Allowance 0,487% Offset File H169.BOF - 4/1/1994 9:01:00 Measurement by DIMOU/ NAKI/ VAFIAS - 26/08/2003		IMSL 9,762m VCGD 0,080m Sink 17,45kg/mm RL 8,361m VCGM 0,141m WS 22,98m² LSMO 9,734m Displacement/Length ratio 4,4562



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



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	612,7			687,5		
Time On Time	0,9793			0,9818		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	729,4	556,8	489,1	952,7	692,2	594,0
Time on Time	0,9254	1,2122	1,3802	0,7085	0,9752	1,1364

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1070,1	881,6	778,7	730,3	708,5	697,1	691,1
52°	693,6	579,2	523,5	503,3	495,0	490,3	486,2
60°	649,6	547,8	506,1	487,6	478,8	473,4	468,3
75°	613,5	525,7	492,9	471,2	453,5	443,1	433,6
90°	613,2	524,0	489,8	467,5	444,5	423,7	400,5
110°	648,9	534,2	489,5	460,2	429,8	410,3	384,5
120°	674,1	550,8	497,5	468,4	439,0	409,7	365,8
135°	756,3	609,8	528,0	490,3	463,6	435,2	379,0
150°	902,5	707,3	594,3	524,9	490,3	465,0	412,7
Run VMG	1042,1	816,8	685,4	598,8	538,6	499,3	449,0

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Issued On **17/3/2017**
VPP Ver. **2017 1.00**
Valid until **28/2/2018**

Crew Weight
Declared **620kg**
Default* **662kg**
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **652,2 0,9200**
Non Spin OSN **633,9 0,9465**

Selected Courses							
Windward / Leeward	1056,1	849,2	732,0	664,5	623,5	598,2	570,0
Circular Random	875,0	703,6	611,1	556,7	522,5	499,5	469,7
Ocean for PCS	1080,8	829,9	688,0	600,8	543,5	502,6	444,3
Non Spinnaker	914,3	731,4	631,9	573,1	536,1	511,2	478,5

Sails Limitations
Headsails **5** | Spinnakers **3**

Class Division Length
CDL = **9,062**

Storm Sails Areas
Heavy Weather Jib **19,63**
Storm Jib (JL=7,84) **7,27**
Storm Triesail **11,78**

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	43,8°	42,4°	42,1°	40,4°	39,4°	38,9°	39,5°
Beat VMG	3,36	4,08	4,62	4,93	5,08	5,16	5,21
52°	5,19	6,22	6,88	7,15	7,27	7,34	7,40
60°	5,54	6,57	7,11	7,38	7,52	7,61	7,69
75°	5,87	6,85	7,30	7,64	7,94	8,12	8,30
90°	5,87	6,87	7,35	7,70	8,10	8,50	8,99
110°	5,55	6,74	7,35	7,82	8,38	8,77	9,36
120°	5,34	6,54	7,24	7,69	8,20	8,79	9,84
135°	4,76	5,90	6,82	7,34	7,77	8,27	9,50
150°	3,99	5,09	6,06	6,86	7,34	7,74	8,72
Run VMG	3,45	4,41	5,25	6,01	6,68	7,21	8,02
Gybe Angles	144,8°	149,5°	152,2°	157,0°	175,1°	180,0°	180,0°

Owner

BOAT	
Name ASTRAPI	Sail Nr GRE-01
File GR01	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 15/03/2017		SG 1,0290	
FFM 1,059	FF 1,058	SFFP 0,335	
FAM 0,922	FA 0,921	SAFP 9,488	
W1 74,9	PD1 256,0	WD 8,460	
W2 74,9	PD2 256,0	GSA 28,3	
W3 74,9	PD3 256,0	RSA 5024,0	
W4 74,9	PD4 256,0	PLM 2053,0	
LCF from stem on CL / on sheer		5,869 / 6,099	
Maximum beam station from stem		7,310	
RM Measured		88,4kg·m	
RM Default		97,2kg·m	
Limit of positive stability / Stab.Index		105,8° / 102,5	
Freeboard at mast at 3,505		0,996	



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IMS Measurement Certificate

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 12,900	E 5,220	MDT1 0,098	MW 0,160
IG 12,010	J 3,280	MDL1 0,160	GO 0,173
ISP 12,850	SFJ 0,225	MDT2 0,098	BD 0,150
BAS 1,500	SPL 3,575	MDL2 0,137	MWT 130,80
FSP 0,064	TPS	TL 0,600	MCG 4,350

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0,410		
Type Folding 2 blades	PBW 0,113		
Twin Screw No	PIPA 0,0054		
PSA 23,000	PHL 0,113	ST3 0,078	ESL 0,912
PSD 0,025	ST1 0,022	ST4 0,052	
PHD 0,068	ST2 0,090	ST5 0,176	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	
	0,170	1,09	1,95	3,35	4,36	
						Area Area (r) Formula
						39,89 40,95 P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	
	11,82	11,82	11,82	6,57	5,95	
						63,49 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
0,06	0,55	1,09	2,26	3,54	4,92	12,16	28,62			08/06/2016	Kevlar	
0,06	0,59	1,12	2,24	3,37	4,55	11,90	26,90			21/05/2014	Kevlar	LMD
0,08	0,57	1,09	2,17	3,38	4,55	11,90	26,67			23/05/2014	Kevlar	HEAVY
0,00	0,44	0,83	1,66	2,55	3,55	12,00	20,61			05/03/2008	Kevlar	

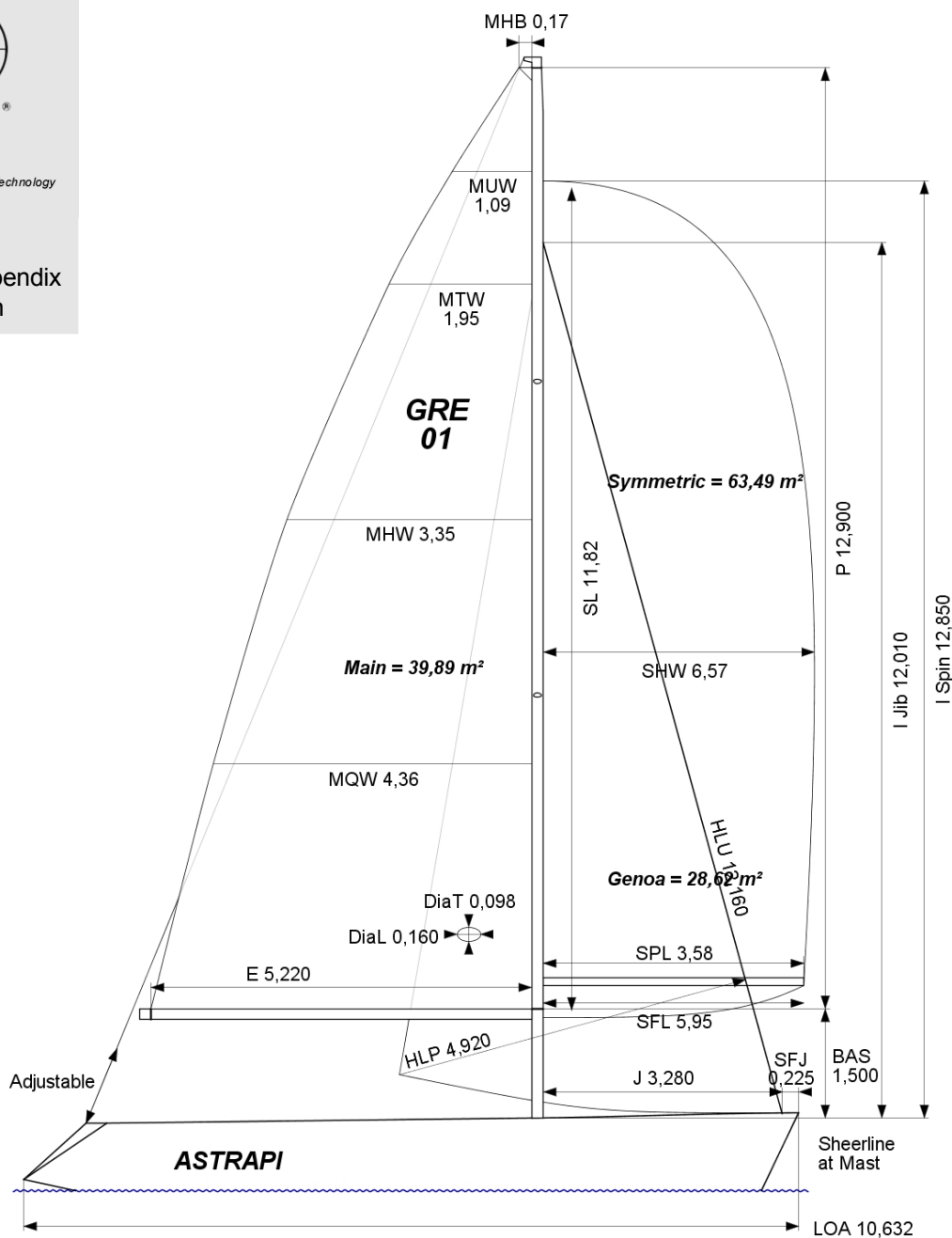
MEASUREMENT INVENTORY				
Measurer VAFIAS GRE-143				
Date 15/03/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	yanmar	20Hp	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	

MEASUREMENT INVENTORY								
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>
2	Tank	FUEL	PVC	50,0	4,70	0,00	0,0	
1	Tank	water	PVC	50,0	4,70	0,00	0,0	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				
1	Ballast	35,0	3,05	0,00	1 LEAD PIG (covered with polyester)			
1	Battery	18,0	5,90	0,00	75 Ah			



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0,170	1,09	1,95	3,35	4,36	39,89	GALANI	21/05/2014		Kevlar	

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
H1	0,06	0,55	1,09	2,26	3,54	4,92	12,16	150%	28,62			VAFIAS	08/06/2016	AP SAILS	Kevlar	
G1	0,06	0,59	1,12	2,24	3,37	4,55	11,90	139%	26,90			GALANI	21/05/2014	QUANTUM	Kevlar	LMD
G4	0,08	0,57	1,09	2,17	3,38	4,55	11,90	139%	26,67			GALANI	23/05/2014	QUANTUM	Kevlar	HEAVY
G5	0,00	0,44	0,83	1,66	2,55	3,55	12,00	108%	20,61			NAKIS	05/03/2008		Kevlar	

SYMMETRIC SPINNAKERS (6)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	11,82	11,82	11,82	6,57	5,95	63,49	GALANI	21/05/2014		Nylon	
S6	12,58	12,57	12,57	6,07	5,99	63,44	VAFIAS	16/05/2016	AP SAILS	Nylon	
S3	11,75	11,75	11,75	5,98	5,72	58,05	NAKIS	11/03/2008	KAKITSIS	Nylon	
S1	11,75	11,75	11,75	5,90	5,80	57,58	NAKIS	11/03/2008	KAKITSIS	Nylon	
S2	11,63	11,63	11,63	5,71	5,75	55,42	NAKIS	11/03/2008	KAKITSIS	Nylon	

ASYMMETRIC SPINNAKERS (0)

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