



World Leader in Rating Technology

2016 ORC Club Certificate

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

Certificate
 Number **F00831**
 Issued On **16/3/2016**
 ORC Ref **GRE01005185**
 VPP Ver. **2016 1.01**
 Valid until **28/2/2017**

Crew Weight
 Declared **560kg**
 Default* **686kg**
 Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	669,3	0,8965
Non Spin OSN	650,2	0,9227
N/S Perf. Line	3,7	0,576

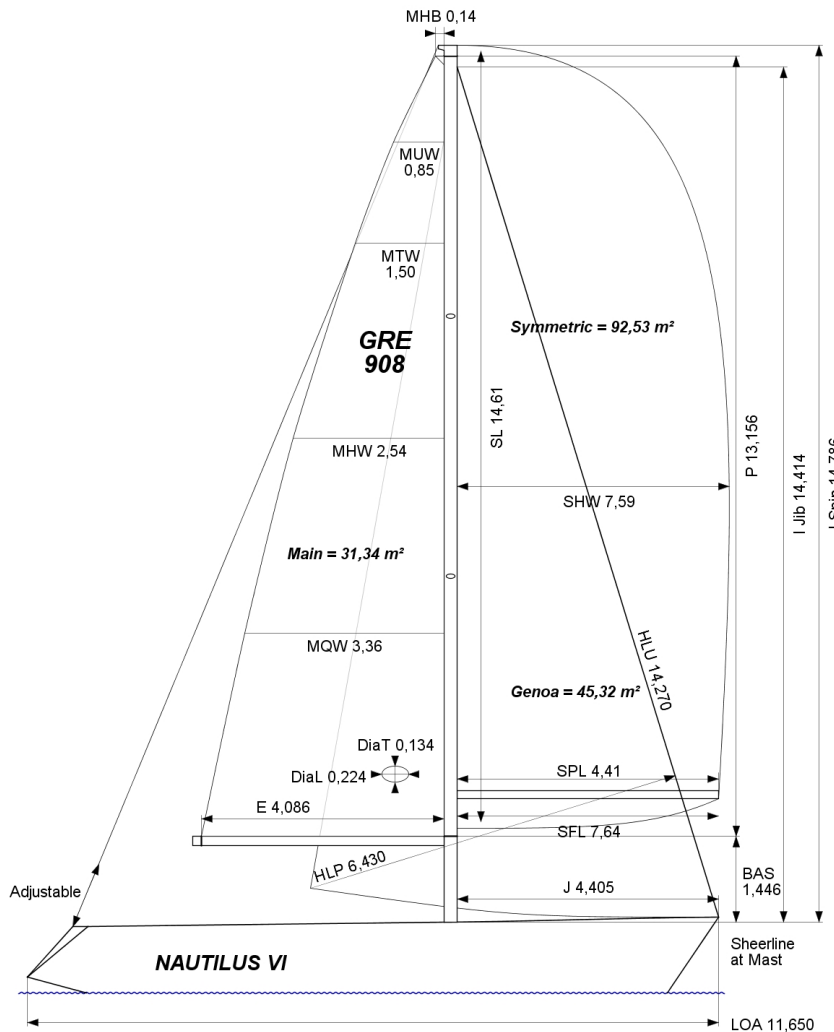
Sails Limitations
 Headsails **6** Spinnakers **3**

Spinnaker configuration
 Symmetric: **Yes** **92,53**
 Asymmetric: **No**
 Flying H/S: **No**
 Spin. Pole: **Yes**

Class Division Length
 CDL = **8,930**

Stability
 LPS (Measured): **115,1°**
 Stability Index: **115,4**
 OSR Category: **1**

Owner



BOAT	GPH	HULL
Name NAUTILUS VI Sail Nr GRE-908	643,2	Data File GR908.dxt LOA 11,650m Offset File DUF_38C.BOF MB 3,852m Displacement 6,516kg Draft 1,878m
CLASS Class DUFOUR 38 classic Designer Chabaud/Poncin Builder DUFOUR SA Series 02/1997 Age Date 05/1999 Age Allowance 0,488%		IMS Division Cruiser/Racer Dynamic All. 0,274% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No
COMMENTS		IMSL 10,043m VCGD 0,024m Sink 21,10kg/mm RL 7,815m VCGM 0,049m WS 26,82m² LSM0 9,978m Displacement/Length ratio 6,5592
PROPELLER Installation Strut PRD 0,430 Type Folding 2 blades PBW 0,111 PIPA 0,0012		Water Ballast 0 Trim Tab No
SCORING OPTIONS		CENTERBOARD N/A
	OFFSHORE COASTAL / LONG DISTANCE	INSHORE WINDWARD / LEEWARD
Time On Distance	624,9	700,2
Time On Time	0,9602	0,9641
Performance Line	PLT 0,632 PLD 24,3	PLT 0,765 PLD 166,2
Triple Number	Low 0,9040 Medium 1,1882 High 1,3554	Low 0,6948 Medium 0,9519 High 1,1255

BOAT	
Name NAUTILUS VI	Sail Nr GRE-908
File GR908.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 09/04/2006	SG 1,0290	
FFM 1,270	FF 1,297	SFFP 0,900
FAM 1,118	FA 1,114	SAFP 10,625
W1 102,00	PD1 265,0	WD 11,600
W2 102,00	PD2 265,0	GSA 28,3
W3 102,00	PD3 265,0	RSA 5674,5
W4 102,00	PD4 265,0	PLM 2115,0
LCF from stem on CL / on sheer		6,299 / 6,575
Maximum beam station from stem		6,960
RM Measured		164,4kg·m
RM Default		152,0kg·m
Limit of positive stability / Stab.Index		115,1° / 115,4
Freeboard at mast at 4,405		1,192

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 13,156	E 4,086	MDT1 0,134	MW 0,224	
IG 14,414	J 4,405	MDL1 0,224	GO 0,264	
ISP 14,786	SFJ 0,000	MDT2 0,134	BD 0,150	
BAS 1,446	SPL 4,405	MDL2 0,224	MWT	
FSP 0,070	TPS	TL 0,000	MCG	



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Measurements Datasheet

MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0,430	
Type Folding 2 blades	PBW 0,111	
Twin Screw No	PIPA 0,0012	
ST1 0,044	ST3 0,170	ST5 0,290
ST2 0,170	ST4 0,044	EDL 2,500

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COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0,140	0,85	1,50	2,54	3,36	31,34 31,78 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	92,53 SL · (SFL + 4·SHW) / 6
	14,61	14,61	14,61	7,59	7,64	
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
0,07	0,77	1,53	3,13	4,79	6,43	14,27	45,32			06/03/2016	Kevlar	
0,08	0,74	1,45	2,94	4,52	6,18	14,01	42,25			06/09/2010	Pentex	2 (ONEIRO)
0,09	0,75	1,46	2,95	4,54	6,20	13,86	41,98			12/12/2009	Pentex	2 (ONEIRO)
0,06	0,54	1,06	2,20	3,45	4,72	14,25	32,51			11/07/2014	Dacron	2.5
0,06	0,45	0,85	1,69	2,52	3,33	13,00	21,92	Y		27/03/2010	Dacron	3.5 (BRINIS)

MEASUREMENT INVENTORY				
Measurer THEODOSSIS				
Date 09/04/2006				
Comment				
Id	Item	Weight	Distance	VCG Description
4	Anchor	16,0	0,80	Fortress
2	Anchor	16,0	7,70	Fortress
4	Chain	95,0	0,80	70m x 8mm
2	Chain	20,0	7,70	7m x 8mm +
4	Tools	19,0	6,40	
2	Tools	60,0	10,08	Tools (2+3kg)
Id	Item	Maker	Model	
1	Engine	Volvo	40hp	
Id	Item	Weight	Description	
4	Deck-Gear	5,0		

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
1	Tank Fuel		PVC hard	140,0	9,40		0,0
2	Tank Water		PVC hard	150,0	1,80		0,0
3	Tank Water		PVC hard	150,0	9,40		0,0
Id	Item	Weight	Distance	VCG Description			
1	Battery	26,0	6,60	100Ah			
2	Battery	26,0	6,60	100Ah			
3	Battery	20,0	7,60	75Ah			
1	Misc	18,0	1,00	Anchor windlass			
2	Misc	10,0	9,00	Bimini			
3	Misc	20,0	5,90	Water boiler			



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ORC Club Certificate Appendix

BOAT

Name **NAUTILUS VI** Certificate Number **F00831**
 Sail Nr **GRE-908** Issued On **16/3/2016**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1120,4	931,0	825,3	755,3	720,6	702,3	690,9
52°	719,4	605,3	538,7	506,0	491,2	484,6	479,8
60°	672,3	567,7	514,0	489,8	476,3	469,1	463,1
75°	633,1	537,6	496,7	476,5	461,5	448,8	434,5
90°	633,8	538,2	496,9	475,9	461,3	446,4	420,8
110°	668,5	549,1	495,1	469,5	447,6	428,5	410,7
120°	686,6	563,6	501,8	474,0	452,3	430,8	395,1
135°	754,0	613,8	530,6	490,7	467,8	447,0	407,1
150°	886,5	702,1	595,8	526,2	490,8	469,4	430,7
Run VMG	1023,7	810,7	687,1	602,5	544,3	502,7	459,4

Selected Courses

Windward / Leeward	1072,1	870,9	756,2	678,9	632,5	602,5	575,2
Circular Random	893,8	718,9	623,8	567,4	532,1	508,8	480,8
Ocean for PCS	1099,1	846,1	702,0	612,8	554,3	513,5	457,6
Non Spinnaker	940,2	752,0	648,6	586,7	547,6	521,9	490,3

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	45,0°	43,5°	43,7°	42,8°	41,4°	41,1°	40,8°
Beat VMG	3,21	3,87	4,36	4,77	5,00	5,13	5,21
52°	5,00	5,95	6,68	7,12	7,33	7,43	7,50
60°	5,35	6,34	7,00	7,35	7,56	7,68	7,77
75°	5,69	6,70	7,25	7,56	7,80	8,02	8,29
90°	5,68	6,69	7,25	7,56	7,80	8,06	8,56
110°	5,39	6,56	7,27	7,67	8,04	8,40	8,77
120°	5,24	6,39	7,17	7,59	7,96	8,36	9,11
135°	4,77	5,87	6,79	7,34	7,70	8,05	8,84
150°	4,06	5,13	6,04	6,84	7,33	7,67	8,36
Run VMG	3,52	4,44	5,24	5,97	6,61	7,16	7,84
Gybe Angles	146,1°	150,3°	151,9°	155,4°	171,5°	180,0°	180,0°