

BOAT Name ADRA Sail Nr GRE-1221	GPH 671.7	HULL Length Overall 9.490m Maximum Beam 3.216m Displacement 3,830kg Draft 1.933m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.319% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class FIRST 31.7 Designer FINOT Builder BENETEAU Series 09/1998 Age 06/2000 Age Allowance 0.487% Offset File F171.OFF - 18/07/2000 21:25:00 Measurement by GRETSOS - 04/02/2003		IMSL 8.985m VCGD 0.267m Sink 15.78kg/mm RL 7.651m VCGM 0.218m WS 20.59m² LSM0 8.936m Displacement/Length ratio 5.3675



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	650.3			723.9		
Time on Time	0.9227			0.9325		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	777.7	592.2	528.3	1000.4	727.8	631.2
Time on Time	0.8679	1.1398	1.2777	0.6747	0.9275	1.0694

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TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1128.6	931.7	819.5	763.4	745.1	738.5	742.5
52°	745.4	626.0	562.2	537.4	528.7	525.1	524.9
60°	708.9	598.3	546.0	524.7	514.7	510.6	508.8
75°	682.7	579.4	535.0	513.4	499.1	489.2	482.2
90°	691.4	582.1	528.6	507.1	493.3	477.1	453.7
110°	697.6	574.2	522.5	495.5	471.9	453.2	432.5
120°	719.3	589.6	529.6	500.8	475.1	450.1	412.1
135°	795.9	645.9	558.6	519.2	494.0	468.5	418.4
150°	940.9	740.4	625.6	553.6	518.9	495.2	447.9
Run VMG	1086.5	855.0	721.1	630.9	568.3	528.4	481.6

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Selected Courses							
Windward / Leeward	1107.5	893.3	770.3	697.2	656.7	633.4	612.0
Circular Random	931.4	749.1	651.0	594.4	560.1	538.5	512.8
Coastal / Long Distance	1105.4	840.2	694.9	611.2	570.0	538.5	488.2
Non Spinnaker	983.8	786.1	678.7	615.9	577.6	553.3	524.6

Crew Weight

Default 586kg
Maximum **470kg**
Minimum* **353kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

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	42.3°	40.7°	40.1°	39.0°	38.3°	38.1°	38.6°
Beat VMG	3.19	3.86	4.39	4.72	4.83	4.88	4.85
52°	4.83	5.75	6.40	6.70	6.81	6.86	6.86
60°	5.08	6.02	6.59	6.86	6.99	7.05	7.08
75°	5.27	6.21	6.73	7.01	7.21	7.36	7.47
90°	5.21	6.18	6.81	7.10	7.30	7.55	7.94
110°	5.16	6.27	6.89	7.27	7.63	7.94	8.32
120°	5.00	6.11	6.80	7.19	7.58	8.00	8.73
135°	4.52	5.57	6.45	6.93	7.29	7.68	8.60
150°	3.83	4.86	5.75	6.50	6.94	7.27	8.04
Run VMG	3.31	4.21	4.99	5.71	6.33	6.81	7.48
Gybe Angles	146.4°	150.5°	152.3°	157.3°	180.0°	180.0°	180.0°

Special Scoring

	ToD	ToT
Double H.GPH	676.6	0.8868
Double H.OSN	657.2	0.9130
Non Spin GPH	701.0	0.8559
Non Spin OSN	677.0	0.8863

Sails Limitations

Headsails	Spinnakers
5	3

Class Division Length

CDL = **8.319**

Storm Sails Areas


Heavy Weather Jib	18.87
Storm Jib (JL=7.68)	6.99
Storm Trysail	7.37

Owner

BOAT	
Name ADRA	Sail Nr GRE-1221
File GR1221	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining		Flotation date 11/03/2016 SG 1.0280	
FFM 1.161	FF 1.160	SFFP 0.303	
FAM 0.967	FA 0.967	SAFP 8.732	
W1 57.1	PD1 591.7	WD 9.375	
W2 57.1	PD2 589.0	GSA 1.0	
W3 57.1	PD3 588.6	RSA 1.0	
W4 57.1	PD4 591.2	PLM 9000.0	
LCF from stem on CL / on sheer		5.295 / 5.527	
Maximum beam station from stem		6.386	
RM Measured		71.4kg-m	
RM Default		78.0kg-m	
Limit of positive stability / Stab.Index		104.7° / 103.4	
Freeboard at mast at 3.530		1.040	

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 10.800	E 3.900	MDT1 0.105	MW 0.159
IG 11.764	J 3.485	MDL1 0.159	GO 0.176
ISP 11.864	SFJ 0.045	MDT2 0.105	BD 0.111
BAS 1.754	SPL 3.464	MDL2 0.159	MWT
FSP 0.062	TPS 	TL 0.000	MCG




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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.400		
Type Feathering 3 blades	PBW 0.101		
Twin Screw No	PIPA 0.0032		
ST1 0.048	ST3 0.170	ST5 0.290	
ST2 0.170	ST4 0.096	EDL 2.520	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0.170	0.83	1.49	2.54	3.33	25.37 25.94 $P/8 \cdot (E + 2 \cdot MQW + 2 \cdot MHW + 1.5 \cdot MTW + MUW + 0.5 \cdot MHB)$
Symmetric	SLU	SLE	SL	SHW	SFL	61.13 $SL \cdot (SFL + 4 \cdot SHW) / 6$
	11.70	11.70	11.70	6.33	6.03	
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	0.61	1.17	2.34	3.58	4.90	11.70	28.06			12/03/2016	Kevlar	
0.05	0.56	1.13	2.33	3.60	4.90	11.06	26.40			12/03/2012	Dacron	
0.07	0.44	0.84	1.69	2.59	3.52	11.59	20.05	Y		12/03/2016	Kevlar	

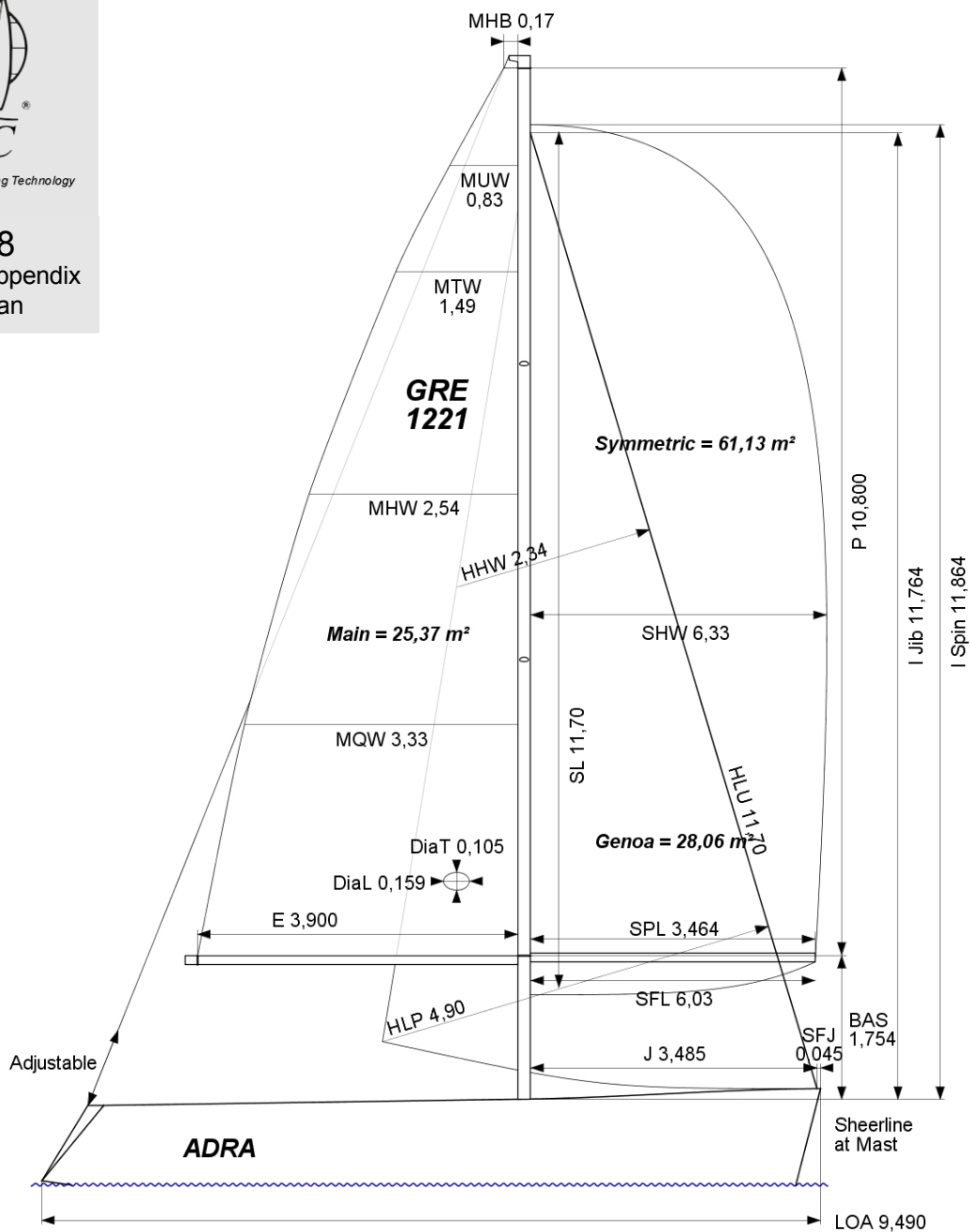
MEASUREMENT INVENTORY				
Measurer KALATZIS GRE-21				
Date 11/03/2016				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	VOLVO PENTA	MD2020 (18	
Id	Item	Weight Description		

MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtn Description
1	Tank	FUEL	PVC hard	30.0	7.00	5-0
2	Tank	FUEL	Inox	40.0	7.00	0-0
2	Tank	WATER	PVC hard	180.0	1.80	0-0
Id	Item	Weight	Distance	VCG Description		
1	Battery		6.00	2 x 75 Ah		
1	Misc		7.00	WATER HEATER		
2	Misc		7.00	ELECTRICAL GENERATOR		
3	Misc		0.80	ANCHOR WINDLASS 1000W		



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Sail Plan



SAILS INVENTORY																
MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.170	0.83	1.49	2.54	3.33	25.37	KALATZIS	12/03/2016	QUANTUM	Kevlar						
1	0.140	0.82	1.46	2.47	3.26	24.89	GRETSOS	03/03/2008		Dacron						
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1a	0.07	0.61	1.17	2.34	3.58	4.90	11.70	141%	28.06			KALATZIS	12/03/2016	QUANTUM	Kevlar	
2	0.05	0.56	1.13	2.33	3.60	4.90	11.06	141%	26.40			GRETSOS	12/03/2012	KAKITSIS	Dacron	
3a	0.07	0.44	0.84	1.69	2.59	3.52	11.59	101%	20.05	Y		KALATZIS	12/03/2016	QUANTUM	Kevlar	
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	11.70	11.70	11.70	6.33	6.03	61.13	GRETSOS	08/10/2012	KAKITSIS	Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				