

BOAT Name ADRA Sail Nr GRE-1221	GPH 679.5	HULL Length Overall 9.490m Maximum Beam 3.216m Displacement 3,842kg Draft 1.934m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.324% 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 GRE1221.OFF - 29/07/2019 13:35:08 Measurement by - 04/02/2003		IMSL 8.990m VCGD 0.170m Sink 15.81kg/mm RL 7.335m VCGM 0.121m WS 20.67m² LSM0 8.942m Displacement/Length ratio 5.3735



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	657.3			732.1		
Time on Time	0.9128			0.9219		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	790.2	598.8	529.0	1020.6	738.2	631.7
Time on Time	0.8542	1.1272	1.2759	0.6614	0.9144	1.0686

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1172.8	967.8	852.7	779.7	749.0	740.4	739.6
52°	766.8	646.8	578.2	544.5	529.9	525.1	524.1
60°	726.3	616.0	558.1	531.1	517.1	510.3	507.7
75°	699.5	592.7	543.6	520.2	504.0	491.6	479.6
90°	699.4	581.5	528.6	506.0	496.1	483.2	455.2
110°	693.2	572.0	522.1	495.5	471.3	451.2	430.3
120°	715.9	587.4	528.7	500.4	475.0	449.8	410.3
135°	793.9	644.6	557.8	518.8	493.6	468.0	418.3
150°	940.7	740.8	625.8	553.7	518.9	495.3	448.0
Run VMG	1086.2	855.4	721.5	631.2	568.6	528.7	481.8

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VPP Ver. **2019 1.01**
Valid until **28/02/2020**

Crew Weight

Default **587kg**
Maximum **480kg**
Minimum* **360kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	688.3	0.8718
Double H.OSN	667.0	0.8995
Non Spin GPH	716.6	0.8373
Non Spin OSN	690.3	0.8692

Selected Courses							
Windward / Leeward	1129.5	911.6	787.1	705.4	658.8	634.5	610.7
Circular Random	945.6	759.5	658.6	599.6	563.3	539.9	511.9
Coastal / Long Distance	1125.2	855.6	707.8	616.9	571.8	539.7	487.5
Non Spinnaker	1012.6	806.7	693.6	626.5	585.0	558.7	528.2

Sails Limitations

Headsails	Spinnakers
5	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	43.4°	41.4°	40.4°	39.5°	38.6°	38.3°	38.5°
Beat VMG	3.07	3.72	4.22	4.62	4.81	4.86	4.87
52°	4.70	5.57	6.23	6.61	6.79	6.86	6.87
60°	4.96	5.84	6.45	6.78	6.96	7.05	7.09
75°	5.15	6.07	6.62	6.92	7.14	7.32	7.51
90°	5.15	6.19	6.81	7.11	7.26	7.45	7.91
110°	5.19	6.29	6.89	7.27	7.64	7.98	8.37
120°	5.03	6.13	6.81	7.19	7.58	8.00	8.77
135°	4.53	5.59	6.45	6.94	7.29	7.69	8.61
150°	3.83	4.86	5.75	6.50	6.94	7.27	8.04
Run VMG	3.31	4.21	4.99	5.70	6.33	6.81	7.47
Gybe Angles	146.2°	150.2°	152.1°	157.3°	175.8°	180.0°	180.0°

Class Division Length

CDL = **8.163**

Storm Sails Areas

Heavy Weather Jib **18.87**
Storm Jib (JL=7.69) **6.99**
Storm Trysail **7.38**

Owner

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

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date 26/07/2019				SG 1.0280	
FFM	1.162	FF	1.159	SFFP	0.303
FAM	0.963	FA	0.966	SAFP	8.732
W1	57.9	PD1	563.8	WD	9.750
W2	57.9	PD2	564.1	GSA	1.0
W3	57.9	PD3	563.8	RSA	1.0
W4	57.9	PD4	568.0	PLM	9000.0
LCF from stem on CL / on sheer				5.299 / 5.531	
Maximum beam station from stem				6.386	
RM Measured				78.7kg-m	
RM Default				76.9kg-m	
Limit of positive stability / Stab.Index				110.1° / 108.8	
Freeboard at mast at 3.530				1.040	



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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
IG	11.764	J	3.485	MDL1	0.159
ISP	11.864	SFJ	0.045	MDT2	0.105
BAS	1.754	SPL	3.464	MDL2	0.159
FSP	0.062	TPS		TL	0.000
				MW	0.159
				GO	0.176
				BD	0.111
				MWT	
				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
ST2	0.170	ST4	0.096
		ST5	0.290
		EDL	2.520

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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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 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	61.39		SL · (SFL + 4·SHW) / 6	
	11.70	11.70	11.70	6.37	6.00				
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
0.09	0.57	1.07	1.96	2.74	3.56	11.71	22.09			04/09/2009	Unknow	
0.07	0.44	0.84	1.69	2.59	3.52	11.59	20.06	Y		12/03/2016	Kevlar	

MEASUREMENT INVENTORY				
Measurer GRE-21				
Date 26/07/2019				
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	VOLVO PENTA	MD2020 (18	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	

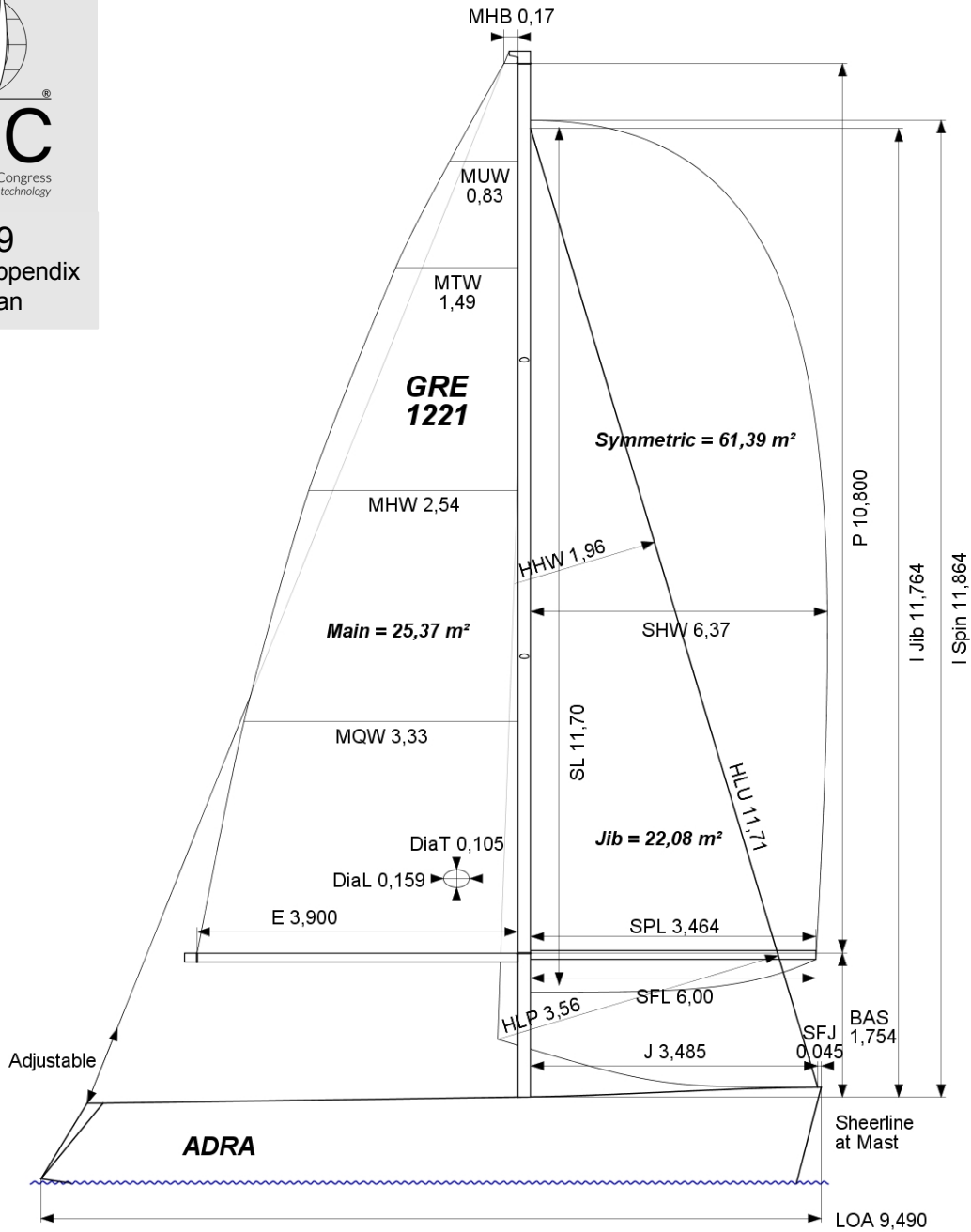
MEASUREMENT INVENTORY							
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn Description</i>
1	Tank	FUEL	PVC hard	30.0	7.00		25-0
2	Tank	FUEL	Inox	40.0	7.00		0-0
2	Tank	WATER	PVC hard	180.0	1.80		0-0
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>			
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 (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.17	0.83	1.49	2.54	3.33	25.37		12/03/2016	QUANTUM	Kevlar						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
5	0.09	0.57	1.07	1.96	2.74	3.56	11.71	102%	22.09				04/09/2009		Unknown	
3a	0.07	0.44	0.84	1.69	2.59	3.52	11.59	101%	20.06	Y			12/03/2016	QUANTUM	Kevlar	
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	11.70	11.70	11.70	6.37	6.00	61.39		04/10/2017		Unknown						
3	11.70	11.70	11.70	6.33	6.04	61.16		05/05/2017		Unknown						
4	11.68	11.68	11.68	6.22	6.08	60.27		10/11/2010		Unknown						
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				