

BOAT Name ONAR Sail Nr GRE-49576	GPH 695.1	HULL Length Overall 10.540m Maximum Beam 3.494m Displacement 5,583kg Draft 1.939m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.450% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class FIRST 345 Designer J. BERRET Builder BENETEAU Series 09/1984 Age 01/1985 Age Allowance 0.487% Offset File H193.BOF - 03/01/1994 15:04:00 Measurement by TSALTAS - 28/03/2005		IMSL 8.745m VCGD 0.018m Sink 16.44kg/mm RL 6.870m VCGM 0.032m WS 23.38m²



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SCORING OPTIONS	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	672.6			748.6		
Time On Time	0.8921			0.9016		
Performance Line	0.729	83.5		0.665	127.8	
Triple Number	Low 0.8266	Medium 1.1044	High 1.2659	Low 0.6372	Medium 0.8896	High 1.0663

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1218.5	1004.9	888.6	805.6	760.0	739.5	728.3
52°	788.6	660.9	583.3	543.6	525.0	516.3	511.1
60°	740.1	622.8	556.1	526.8	511.0	500.9	493.4
75°	702.8	591.9	538.2	514.3	498.3	485.2	466.4
90°	710.4	598.8	534.7	508.5	498.6	485.1	460.2
110°	721.1	591.9	531.0	503.6	482.1	462.5	444.0
120°	745.3	611.4	539.9	509.7	488.9	469.3	434.6
135°	828.8	675.9	579.2	530.7	505.5	485.4	447.0
150°	977.2	768.9	650.8	570.7	528.8	505.0	466.2
Run VMG	1128.4	885.2	742.5	643.9	572.8	531.7	488.0

Certificate

Number **000301**
ORC Ref **GRE01003630**
Issued On **07/05/2015**
VPP Ver. **2015 1.01**
Valid until **29/02/2016**

Crew Weight

Declared **440kg**
Default* **575kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **725.7 0.8268**
Non Spin OSN **699.5 0.8578**
N/S Perf. Line **57.6 0.665**

Selected Courses							
Windward / Leeward	1173.5	945.1	815.5	724.8	666.4	635.6	608.2
Circular Random	974.1	780.0	673.6	610.3	570.9	545.3	514.6
Ocean for PCS	1036.8	813.8	688.1	610.8	560.5	525.8	479.0
Non Spinnaker	1029.2	819.0	702.6	632.5	588.4	559.7	525.8

Sails Limitations

Headsails	Spinnakers
6	3

Dacron Sails

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	44.0°	42.4°	42.3°	42.3°	41.1°	40.0°	39.7°
Beat VMG	2.95	3.58	4.05	4.47	4.74	4.87	4.94
52°	4.57	5.45	6.17	6.62	6.86	6.97	7.04
60°	4.86	5.78	6.47	6.83	7.05	7.19	7.30
75°	5.12	6.08	6.69	7.00	7.22	7.42	7.72
90°	5.07	6.01	6.73	7.08	7.22	7.42	7.82
110°	4.99	6.08	6.78	7.15	7.47	7.78	8.11
120°	4.83	5.89	6.67	7.06	7.36	7.67	8.28
135°	4.34	5.33	6.22	6.78	7.12	7.42	8.05
150°	3.68	4.68	5.53	6.31	6.81	7.13	7.72
Run VMG	3.19	4.07	4.85	5.59	6.28	6.77	7.38
Gybe Angles	147.0°	153.8°	168.2°	171.2°	174.7°	178.6°	179.2°

Class Division Length

CDL = **7.808**

Storm Sails Areas

Heavy Weather Jib **24.95**
Storm Jib (JL=8.84) **9.24**
Storm Triesail **7.66**

Owner

BOAT	
Name ONAR	Sail Nr GRE-49576
File GR49576.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 25/04/2015		SG 1.0270	
FFM 1.170	FF 1.169	SFFP 0.759	
FAM 0.985	FA 0.985	SAFP 9.255	
W1 69.300	PD1 261.0	WD 10.080	
W2 69.300	PD2 261.0	GSA 50.3	
W3 69.300	PD3 261.0	RSA 5808.8	
W4 69.300	PD4 261.0	PLM 2100.0	
LCF from stem on CL / on sheer		5.509 / 5.717	
Maximum beam station from stem		5.992	
RM Measured		97.5kg·m	
RM Default		100.2kg·m	
Limit of positive stability / Stab.Index		115.3° / 116.5	
Freeboard at mast at 3.918		1.037	



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2015 Measurements Datasheet

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay Fixed	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 11.760	E 3.720	MDT1 0.125	MW 0.185
IG 13.457	J 3.918	MDL1 0.185	GO 0.225
ISP 13.477	SFJ 0.000	MDT2 0.125	BD
BAS 1.599	SPL 3.650	MDL2 0.185	MWT
FSP 0.080	TPS	TL 0.000	MCG

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0.460		
Type Folding 2 blades	PBW 0.115		
Twin Screw No	PIPA 0.0027		
PSA 20.200	PHL 0.029	ST3 0.068	ESL 0.787
PSD 0.025	ST1 0.015	ST4 0.049	
PHD 0.040	ST2 0.068	ST5 0.210	

COMMENTS	
ex "HELIOS"	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



Invalid for Racing

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SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	Area	Area (r)	Formula	
	0.150	0.74	1.32	2.29	3.05	25.28	25.62	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Symmetric	SL	SMG	SF				70.78	SL · (SF + 4·SMG) / 6	
	12.78	6.64	6.67						
Asymmetric Not Available									

HEADSAILS												
Area = 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)												
JH	JGT	JGU	JGM	JGL	LPG	JL	Area	Btn	Fly	Meas.Date	Material	Comment
0.06	0.65	1.24	2.55	3.94	5.36	12.74	33.34			29/03/2014	Dacron	
0.07	0.53	1.07	2.21	3.55	5.22	12.84	30.67			29/03/2014	Dacron	
0.04	0.54	1.10	2.34	3.71	5.09	11.80	28.76			29/03/2014	Dacron	BLUE

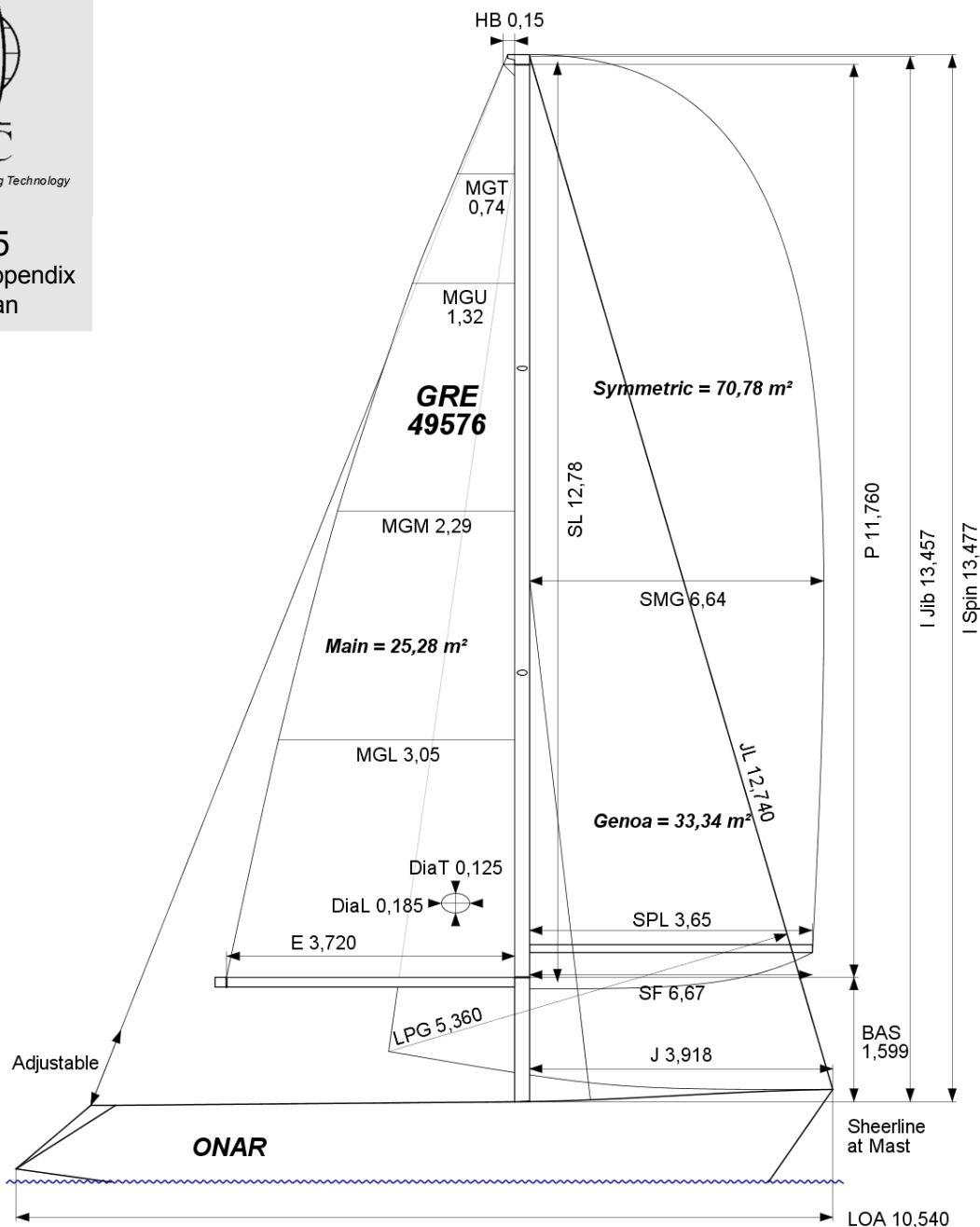
MEASUREMENT INVENTORY				
Measurer BARBETTAS GRE-29				
Date 25/04/2015				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	VOLVO PENTA	18hp 2002R	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	
	Deck-Gear			

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>	
3	Tank	FUEL	STAINLESS	75.0	8.25	0.00	0-0	FACTORY MADE	
2	Tank	WATER	POLYESTER	184.0	4.74	0.00	0-0	CUSTOM MADE STB	
1	Tank	WATER	POLYESTER	184.0	4.74	0.00	0-0	CUSTOM MADE	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					
2	Battery		6.65	0.00 BATTERY 120Ah					
1	Battery		6.65	0.00 BATTERY 75Ah					
3	Misc		1.00	0.85 WIND LASS VETUS ALEXANDER					
4	Misc		0.10	1.41 FURLER DRUM AND FOIL(PROFURL P40)					
2	Misc		10.19	1.65 SWIMING PLATFORM/ALUMINIUM BIMINI-					



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC	0.150	0.74	1.32	2.29	3.05	25.28					* Copied from legacy

HEADSAILS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G2	0.06	0.65	1.24	2.55	3.94	5.36	12.74	137%	33.34			CORBETT	29/03/2014	TASKER	Dacron	
G3	0.07	0.53	1.07	2.21	3.55	5.22	12.84	133%	30.67			CORBETT	29/03/2014	NORTH	Dacron	
G4	0.04	0.54	1.10	2.34	3.71	5.09	11.80	130%	28.76			CORBETT	29/03/2014		Dacron	BLUE

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	12.78	6.64	6.67	70.78	BARBETAS	23/03/2015	NORTH	Unknown	

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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