

BOAT Name CODE ZERO Sail Nr GRE-9442	GPH 561.0	HULL Length Overall 12.450m Maximum Beam 3.216m Displacement 6,453kg Draft 2.554m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class GRAND SOLEIL 42 R Designer BOTIN-CARKEEK Builder DEL PARDO Series 04/2003 Age 06/2003 Age Allowance 0.487% Offset File GS42R.OFF - 28/02/2008 17:15:06 Measurement by - 02/04/2010		IMSL 10.992m VCGD -0.174m Sink 23.20kg/mm RL 10.838m VCGM -0.210m WS 29.89m² LSM0 10.529m Displacement/Length ratio 5.5284



ORC
Offshore Racing Congress
World leader in rating technology

2019
ORC International
Certificate

Rating Office

Offshore
Racing
Congress



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	545.6			609.3		
Time on Time	1.0996			1.1078		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	640.0	497.8	443.9	828.7	612.5	532.6
Time on Time	1.0547	1.3561	1.5205	0.8145	1.1021	1.2673

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	916.0	748.8	667.5	641.4	629.6	618.0	609.9
52°	603.5	503.2	467.8	457.7	452.9	449.8	442.1
60°	571.3	485.9	456.7	445.9	440.5	437.4	427.8
75°	546.9	475.4	447.9	431.0	421.3	415.5	407.8
90°	552.1	477.0	447.8	427.2	408.6	394.9	382.0
110°	575.4	478.1	441.0	415.5	398.8	385.9	364.5
120°	594.8	488.9	447.3	419.4	392.3	370.3	344.6
135°	666.5	536.1	470.2	439.6	413.2	387.1	333.4
150°	795.4	633.6	532.4	472.2	442.7	418.0	369.8
Run VMG	918.5	731.6	614.7	539.7	492.1	456.5	408.6

Selected Courses							
Windward / Leeward	917.2	740.2	641.1	590.5	560.9	537.2	509.3
Circular Random	770.7	622.9	544.4	499.2	471.2	452.2	426.5
Coastal / Long Distance	917.4	696.4	579.9	516.7	482.1	452.7	408.3
Non Spinnaker	819.6	657.4	570.0	518.9	487.1	465.7	437.6

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	42.5°	41.2°	39.0°	38.0°	37.3°	36.8°	37.1°
Beat VMG	3.93	4.81	5.39	5.61	5.72	5.83	5.90
52°	5.97	7.15	7.70	7.86	7.95	8.00	8.14
60°	6.30	7.41	7.88	8.07	8.17	8.23	8.41
75°	6.58	7.57	8.04	8.35	8.55	8.66	8.83
90°	6.52	7.55	8.04	8.43	8.81	9.12	9.42
110°	6.26	7.53	8.16	8.67	9.03	9.33	9.88
120°	6.05	7.36	8.05	8.58	9.18	9.72	10.45
135°	5.40	6.72	7.66	8.19	8.71	9.30	10.80
150°	4.53	5.68	6.76	7.62	8.13	8.61	9.73
Run VMG	3.92	4.92	5.86	6.67	7.32	7.89	8.81
Gybe Angles	141.7°	146.5°	148.5°	155.4°	168.1°	180.0°	180.0°

Certificate
Number **00372P**
ORC Ref **GRE01015783**
Issued On **01/06/2019**
VPP Ver. **2019 1.01**
Valid until **28/02/2020**

Crew Weight
Default **741kg**
Maximum **796kg**
Minimum* **597kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **588.1 1.0202**
Non Spin OSN **572.4 1.0482**

Sails Limitations
Headsails **6** Spinnakers **4**

Class Division Length
CDL = **10.916**

Storm Sails Areas
Heavy Weather Jib **32.70**
Storm Jib (JL=10.12) **12.12**
Storm Trysail **17.63**

Owner

BOAT				
Name	CODE ZERO	Sail Nr	GRE-9442	
File	GR9442	Data in	meters/kilograms	
RIG				
Forestay Tension	Aft	Spreaders	2	
Inner Stay	None Fitted	Runners	0	
Carbon Mast	Yes	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	16.378	E	6.150	MDT1 0.124 MW 0.237
IG	15.467	J	4.540	MDL1 0.242 GO 0.265
ISP	15.600	SFJ	0.120	MDT2 0.084 BD 0.262
BAS	1.686	SPL	4.525	MDL2 0.180 MWT 205.00
FSP	0.068	TPS		TL 2.610 MCG 5.405

INCLINING TEST AND FREEBOARDS				
Inclining Test Current Inclining				
Flotation date		09/07/2017	SG 1.0255	
FFM	1.390	FF	1.390	SFFP 0.100
FAM	1.073	FA	1.074	SAFP 11.988
W1	128.8	PD1	556.8	WD 11.435
W2	128.8	PD2	555.7	GSA 1.0
W3	128.8	PD3	557.3	RSA 1.0
W4	128.8	PD4	556.0	PLM 9000.0
LCF from stem on CL / on sheer		6.760 / 6.938		
Maximum beam station from stem		7.940		
RM Measured		208.4kg-m		
RM Default		192.1kg-m		
Limit of positive stability / Stab.Index		130.6° / 137.3		
Freeboard at mast at 4.660		1.221		



ORC
Offshore Racing Congress
World leader in rating technology

2019
IMS Measurement
Certificate

MIZZEN RIG AND SAILS				
N/A				

PROPELLER				
Installation	Strut	PRD		
Type	Folding 2 blades	PBW		
Twin Screw	No	PIPA	0.0035	
ST1	0.041	ST3	ST5	0.275
ST2		ST4	EDL	0.980

Certificate	
Number	00372P
ORC Ref	GRE01015783
Issued On	01/06/2019
VPP Ver.	2019 1.01
Valid until	28/02/2020

COMMENTS				
Solid Keel with Tunnels. ex "ARISTOFANI R", ex "BOOKER", ex "SAIOLA" FRA-9442				

MOVABLE BALLAST				
N/A				



COPY ONLY
Invalid for Racing
World Leader In Rating Technology

COMMENTS				
N/A				

CENTERBOARD				
N/A				

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.190	1.25	2.24	3.86	5.06	58.75	59.97	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	110.19		SL · (SFL + 4·SHW) / 6	
	15.30	15.30	15.30	8.74	8.25				
Asymmetric	Not Available								

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.08	0.73	1.38	2.57	3.70	4.85	15.81	39.82	Y		17/05/2019	Carbon	LIGHT 3Di
0.08	0.70	1.32	2.51	3.70	4.85	15.81	39.39	Y			Unknow	Medium 3Di
0.09	0.67	1.29	2.50	3.67	4.82	15.65	38.65	Y		21/05/2013	Kevlar	JIB TOP
0.09	0.66	1.27	2.46	3.63	4.80	15.62	38.18	Y			Unknow	
0.09	0.66	1.28	2.47	3.65	4.79	15.50	37.99	Y		10/05/2016	Carbon	3DL Light
0.09	0.67	1.28	2.45	3.62	4.74	15.47	37.63	Y		10/05/2016	Dyneem	3Di Medium
0.08	0.66	1.24	2.36	3.50	4.71	15.41	36.56			07/06/2016	Carbon	3DL
0.08	0.59	1.11	2.23	3.44	4.63	15.49	35.42	N		13/07/2011	Unknow	WINDSEEKER

MEASUREMENT INVENTORY				
Measurer	GRE-21			
Date	09/07/2017			
Comment	MATRESSES & FLOORBOARDS IN THEIR			
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	YANMAR		
Id	Item	Weight	Description	

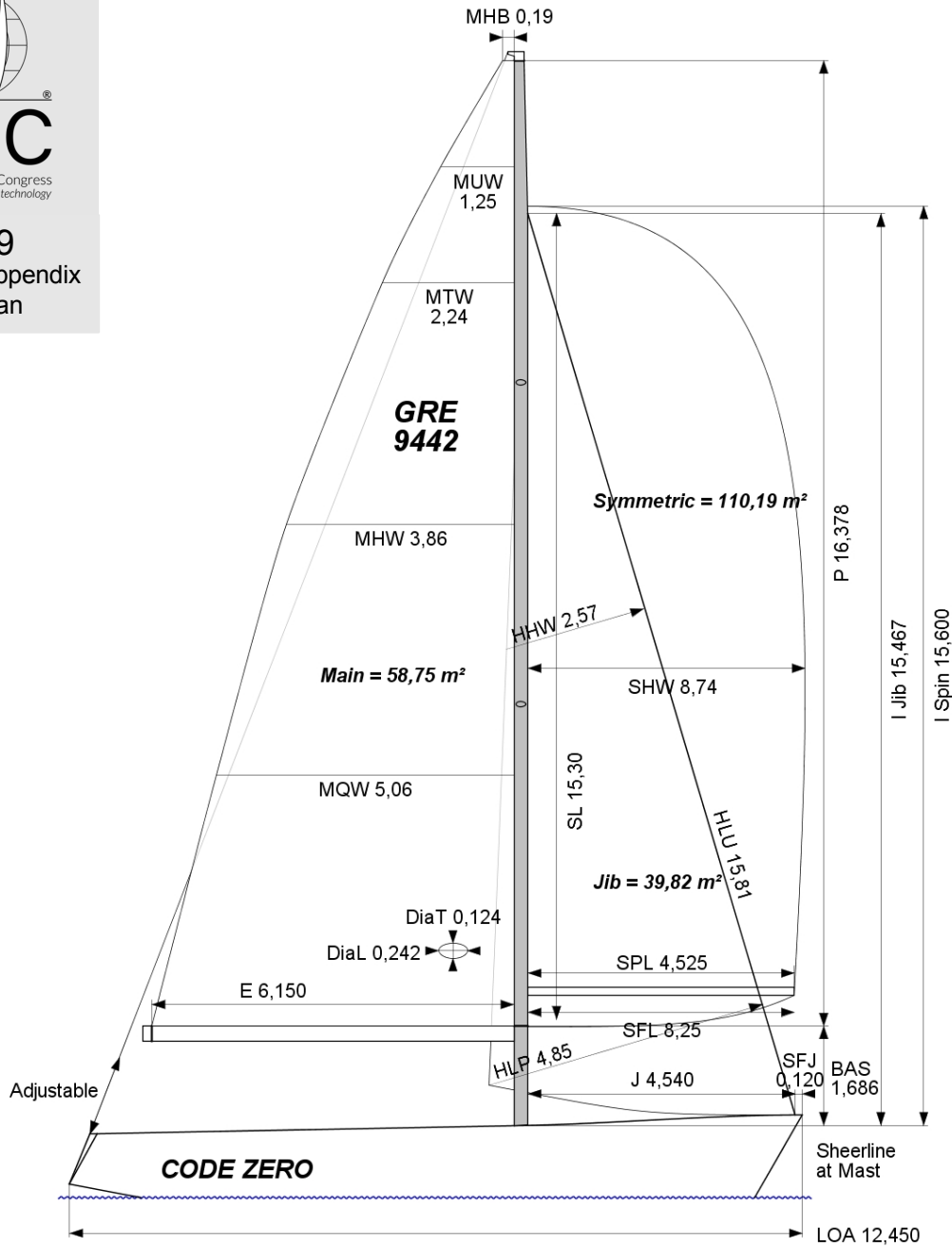
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
1	Tank	FUEL	PVC hard	62.0	7.80		40-0
2	Tank	WATER	Soft bag	50.0	5.40		0-0
3	Tank	WATER	Soft bag	50.0	5.40		0-0
Id	Item	Weight	Distance	VCG Description			
1	Ballast	117.5	6.00	58.1 (p) + 59.4 (s)			
2	Ballast	688.8	6.60	345.8 (p) + 343.0 (s)			
3	Ballast	77.7	7.20	31.6 (p) + 46.1 (s)			
4	Ballast	565.9	7.70	283.0 (p) + 282.9 (s)			
1	Battery	34.0	7.10	2 x 75Ah			
2	Battery	14.4	7.10	1 x 58Ah			



ORC

Offshore Racing Congress
World leader in rating technology

2019
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.19	1.25	2.24	3.86	5.06	58.75		27/10/2017	NORTH	Carbon	3Di					
2	0.15	1.27	2.18	3.68	4.74	56.52		03/05/2019	NORTH	Kevlar	3Di					
HEADSAILS (8)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
12	0.08	0.73	1.38	2.57	3.70	4.85	15.81	107%	39.82	Y			17/05/2019	NORTH	Carbon	LIGHT 3Di
11	0.08	0.70	1.32	2.51	3.70	4.85	15.81	107%	39.39	Y					Unknow	Medium 3Di
04	0.09	0.67	1.29	2.50	3.67	4.82	15.65	106%	38.65	Y			21/05/2013	NORTH	Kevlar	JIB TOP
10	0.09	0.66	1.27	2.46	3.63	4.80	15.62	106%	38.18	Y					Unknow	
01	0.09	0.66	1.28	2.47	3.65	4.79	15.50	106%	37.99	Y			10/05/2016	NORTH	Carbon	3DL Light
02	0.09	0.67	1.28	2.45	3.62	4.74	15.47	104%	37.63	Y			10/05/2016	NORTH	Dyneem	3Di Medium
J3	0.08	0.66	1.24	2.36	3.50	4.71	15.41	104%	36.56				07/06/2016	NORTH	Carbon	3DL
SYMMETRIC SPINNAKERS (9)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
12	15.30	15.30	15.30	8.74	8.25	110.19		03/05/2019	NORTH	Nylon	S2					
01	15.72	15.72	15.72	8.36	8.43	109.70		01/02/2017	NORTH	Nylon	S1					
02	15.35	15.37	15.36	8.60	8.40	109.57		03/05/2019	NORTH	Nylon	S1.5					
06	15.33	15.33	15.33	8.04	8.15	103.00		01/02/2017	NORTH	Nylon	S3					
07	15.39	15.39	15.39	8.09	7.77	102.94		30/04/2010	QUANTUM	Nylon	0.5 AP V					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				