

APH: **527.5**

CDL: **10.694**

GPH: **594.9**

CertNo: **080023**

**BOAT**

Class **GRAND SOLEIL 42R**  
Designer **BOTIN-CARKEEK**  
Builder **DEL PARDO**  
Age date **05.2004**  
Series date **05.2004**  
Offset file **GS42R04-FK.OFF**  
Data file **RU0800 TimeMashine**

**HULL**

Length Overall **12.668 m**  
Maximum Beam **3.086 m**  
Draft **2.556 m**  
Displacement **6 963 kg**  
DLR **5.2773**  
IMS Division **Cruiser/Racer**  
Dynamic Allowance **0.089%**  
Age Allowance **0.487%**

**PROPELLER**

Installation **Strut**  
Type **Folding 2 blades**  
Diameter **0.490m**

**CREW**

Maximum weight **785 kg**  
Minimum weight **589 kg** \* when applied  
Non Manual Power **No**  
Crew Arm Extension

**SAIL AREAS (m<sup>2</sup>)**

	Measured	Rated
Mainsail	<b>59.24</b>	<b>60.67</b>
Headsail Luffed	<b>40.20</b>	<b>40.20</b>

Headsail Flying  
Symmetric  
Asymmetric

**STORM SAIL AREAS (m<sup>2</sup>)**

Trysail **17.43**  
Storm Jib **12.17**  
Heavy Weather Jib **32.86**

**SAIL LIMITS**

Headsails **6**  
Spinnakers **0** \* Spinnaker pole aboard

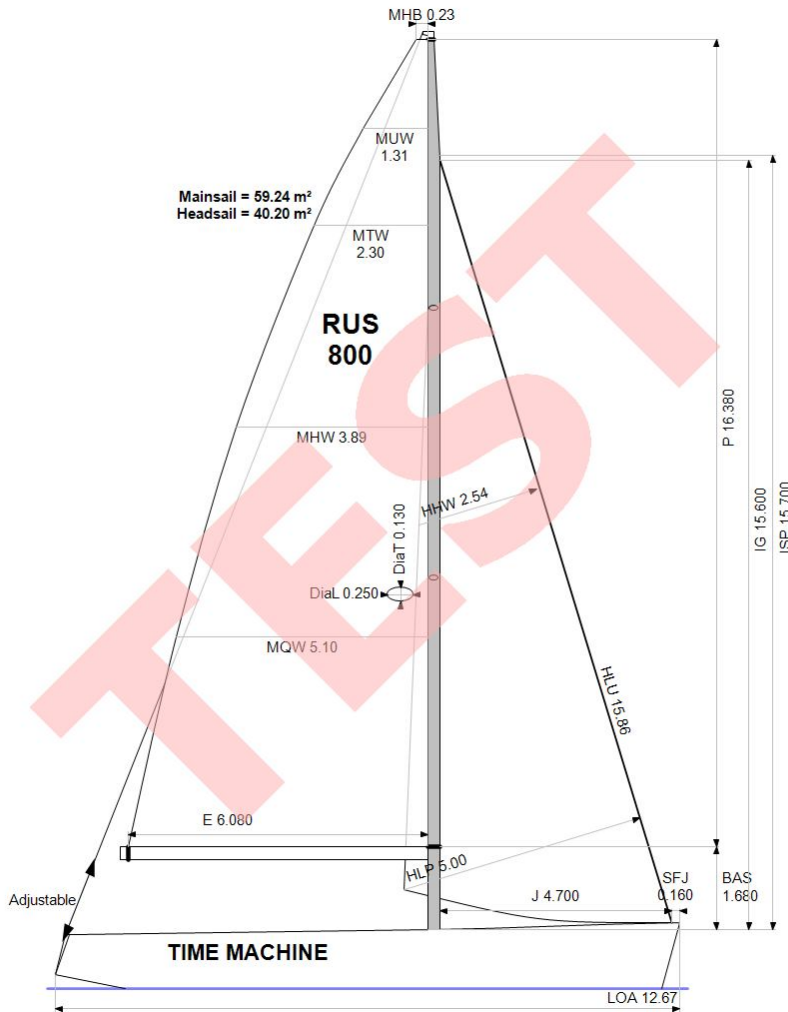
**STABILITY**

Righting Moment **181.9 kg·m**  
Stability Index **N/A**

**COMMENTS**

Convert from IMS Cert No. JI1936

*The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.*



Rated boat velocities in knots

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	43.0°	41.4°	39.9°	39.0°	38.8°	38.2°	38.8°
Beat VMG	3.86	4.73	5.22	5.42	5.52	5.67	5.71
52°	5.87	7.09	7.61	7.77	7.85	7.96	8.05
60°	6.21	7.38	7.85	8.00	8.08	8.16	8.30
75°	6.48	7.56	8.05	8.30	8.43	8.51	8.73
90°	6.41	7.51	8.06	8.43	8.75	8.96	9.17
110°	5.73	6.91	7.75	8.23	8.67	9.15	9.85
120°	5.27	6.52	7.51	8.05	8.48	8.96	10.06
135°	4.55	5.76	6.79	7.61	8.09	8.50	9.46
150°	3.80	4.93	5.94	6.86	7.60	8.07	8.91
Run VMG	3.29	4.27	5.17	6.00	6.80	7.49	8.37
Gybe Angles	143.3°	150.2°	155.0°	159.2°	166.4°	176.3°	179.0°

Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	933.0	760.4	689.3	664.6	652.1	634.7	630.6
52°	613.1	508.0	473.4	463.3	458.5	452.4	447.3
60°	580.1	487.8	458.5	449.9	445.5	441.2	433.7
75°	555.6	476.2	447.0	433.6	427.0	422.8	412.6
90°	562.0	479.2	446.8	426.8	411.5	402.0	392.7
110°	628.8	521.3	464.4	437.7	415.3	393.3	365.4
120°	682.6	551.9	479.3	446.9	424.3	401.8	357.7
135°	791.4	625.5	530.1	473.3	445.0	423.3	380.5
150°	947.6	730.1	605.9	524.8	473.7	446.0	403.9
Run VMG	1094.2	843.0	696.6	599.6	529.5	480.8	430.3
Selected Courses							
Windward / Leeward	1013.6	801.7	693.0	632.1	590.8	557.7	530.4
All purpose	764.2	617.7	546.2	508.6	484.5	465.6	443.9

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	659.5	0.9097
All purpose	527.5	1.1375

### Custom scoring options for Russia

Single Number	Time On Distance	Time On Time
Predominantly Upwind	558.3	1.0747
Predominantly Downwind	553.7	1.0836

Club  
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Boat  
**TIME MACHINE**  
RUS 800

St Petersburg  
Russia

Data in meters/kilograms (Metric)

**HULL AND APPENDAGES (Lightship Trim)**

Class	<b>GRAND SOLEIL 42R</b>	LOA	<b>12.668</b>	VCGD	<b>0.045</b>
Measurement	<b>30.03.2015</b>	Max. Beam	<b>3.086</b>	VCGM	<b>0.033</b>
HIN		Draft	<b>2.556</b>	RM Measured (kg·m)	<b>181.9</b>
Plan review		Displacement	<b>6 963</b>	RM Default (kg·m)	<b>202.4</b>
Hull construction	<b>Cored</b>	Wetted area	<b>30.83</b>	Limit of positive stability(°)	<b>N/A</b>
Aramid Hull Core	<b>No</b>	IMS L	<b>11.291</b>	Stability Index	<b>N/A</b>
Carbon Rudder	<b>Yes</b>	LSM0	<b>10.967</b>		
Light stanchions	<b>No</b>	Acc. length	<b>10.030</b>		
Trim tab	<b>No</b>	Sink (kg/mm)	<b>23.74</b>		

**PROPELLER**

Propeller Type	<b>Folding 2 blades</b>				
Installation	<b>Strut</b>	PRD	<b>0.490</b>	EDL	<b>1.000</b>
Twin screw	<b>No</b>	PBW	<b>0.130</b>	ST1	<b>0.060</b>
Hydro generator	<b>No</b>	PIPA	<b>0.0039</b>	ST2	<b>0.265</b>
				ST3	<b>0.265</b>
				ST4	<b>0.150</b>
				ST5	<b>0.310</b>

**RIG**

Forestay tension	<b>Aft</b>	P	<b>16.380</b>	E	<b>6.080</b>
Inner stay	<b>None Fitted</b>	IG	<b>15.600</b>	J	<b>4.700</b>
Carbon mast	<b>Yes</b>	ISP	<b>15.700</b>	BAS	<b>1.680</b>
Headsail furler	<b>No</b>	MDT1	<b>0.130</b>	FSD	<b>0.033</b>
Mainsail furler	<b>No</b>	MDL1	<b>0.250</b>	SFJ	<b>0.160</b>
Articulated bowsprit	<b>No</b>	MDT2	<b>0.085</b>	SPL	<b>4.794</b>
Non-circular rigging	<b>No</b>	MDL2	<b>0.121</b>	WPL	
Fiber rigging	<b>No</b>	TL	<b>2.440</b>	TPS	<b>5.355</b>
Runners/Checkstays	<b>0</b>	MW	<b>0.250</b>	BD	<b>0.265</b>
Spreaders	<b>2</b>	GO	<b>0.250</b>	MWT	<b>202.00</b>
				MCG	<b>5.360</b>

**FLOTATION AND STABILITY**

Calculation method	<b>Poles inclining</b>	SFFP	<b>0.183</b>	SAFP	<b>12.383</b>	W1	<b>21.0</b>	PD1	<b>47.0</b>	WD	<b>12.120</b>
Flotation Date	<b>08.06.2019</b>	FFM		FAM		W2	<b>41.6</b>	PD2	<b>96.0</b>	PLM	<b>2030.00</b>
Measurer	<b>RUS 92</b>	FF	<b>1.327</b>	FA	<b>1.097</b>	W3	<b>62.2</b>	PD3	<b>144.0</b>	GSA	<b>36.3</b>
Comment		LCFcl	<b>6.629</b>	LCFsh	<b>6.801</b>	W4	<b>82.6</b>	PD4	<b>192.0</b>	RSA	<b>5372.3</b>
		SG	<b>1.0250</b>	HBI	<b>1.196</b>						

**INVENTORY**

<i>BALLAST</i>	<i>Id</i>	<i>Kind</i>	<i>Description</i>	<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	<i>TCG</i>
	5	Fixed	3 UNIT( PART IN KEEL)	90	5.65		
	4	Fixed	2 UNIT *2	4	6.42		
	3	Fixed	4 UNIT * 10	40	6.62		
	2	Fixed	4 UNIT *10	40	6.08		
	1	Fixed		10	5.16		
	<i>Fixed Ballast Total</i>			<b>184</b>			
<i>TANKS</i>	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	3	WATER PLASTIK PLASTIK		60	0	5.50	
	2	WATER PLASTIK PLASTIK		60	0	4.50	
	1	DIESEL METAL METALL	0.9000	80	52	8.69	
	<i>Total deductible</i>				<b>47</b>	<b>8.69</b>	
<i>OTHER ITEMS</i>	<i>Id</i>	<i>Kind</i>	<i>Description</i>	<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	
	1	Battery	3 UNIT - 75 AMP*H	90	7.29		
	1	Engine	YANMAR 3JH4E				
	<i>Total deductible</i>				<b>0</b>		

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**TIME MACHINE**  
RUS 800

St Petersburg  
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**MAINSAIL**

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<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
1	0.23	1.31	2.30	3.89	5.10	59.24	16.08.2013	NORTH SAILS	Unknown	* Copied from legacy *

**HEADSAIL**

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<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying</i>	<i>FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
9	0.09	0.69	1.33	2.54	3.75	5.00	15.86	No	No		40.20	30.05.2019	NORTH SAILS	Carbon	