

APH: **577.5** CDL: **6.720**

GPH: **649.8** CertNo: **6705.1**

#### BOAT

Class **RAKETA 670**  
Designer **Michail Tikhonov**  
Builder **Raketa yachts Ltd**  
Age date **05.2019**  
Series date **10.2018**  
Offset file **SV670.off**  
Data file **RU67005 Bykovskii**

#### HULL

Length Overall **6.700 m**  
Maximum Beam **2.234 m**  
Draft **1.641 m**  
Displacement **621 kg**  
DLR **3.6541**  
IMS Division **Sportboat**  
Dynamic Allowance **0.000%**  
Age Allowance **0.130%**

#### PROPELLER

Installation **No Propeller**  
Type **N/A**  
Diameter **N/A**

#### CREW

Maximum weight **320 kg**  
Minimum weight **235 kg** \*when applied  
Non Manual Power **No**  
Crew Arm Extension **0.50 m**

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

	Measured	Rated
Mainsail	<b>15.46</b>	<b>16.02</b>
Headsail Luffed	<b>9.99</b>	<b>9.99</b>
Headsail Flying		

Symmetric  
Asymmetric **45.64** **45.64**  
*(All asymmetric spinnakers with SHW/SFL > 85%)*

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

Trysail **4.02**  
Storm Jib **3.50**  
Heavy Weather Jib **9.45**

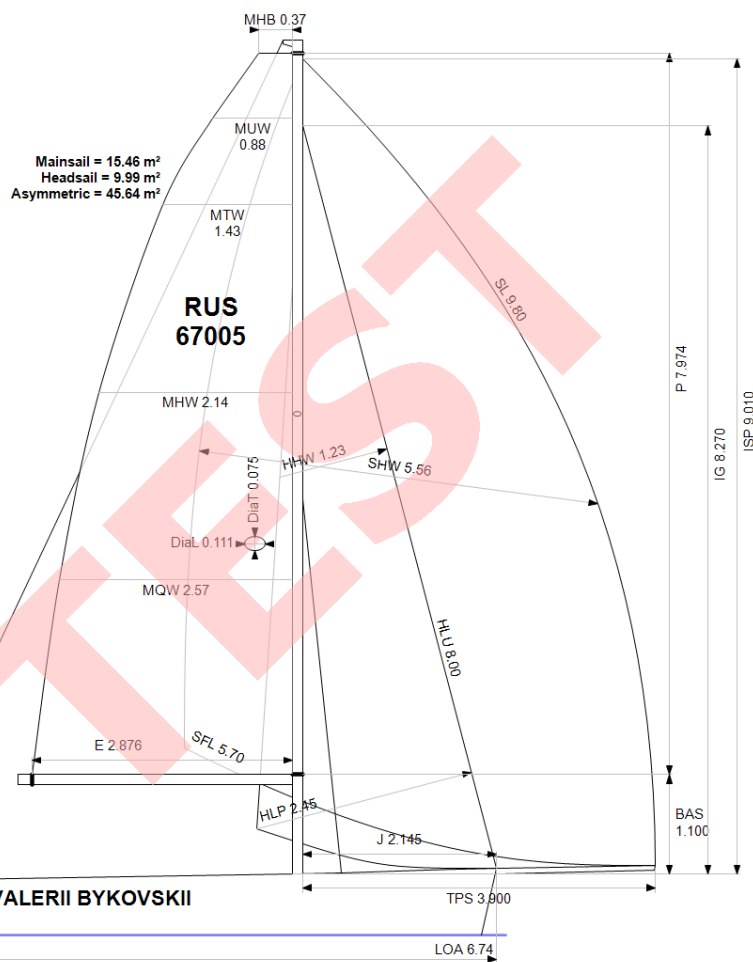
#### SAIL LIMITS

Headsails **5**  
Spinnakers **4**

#### STABILITY

Righting Moment **17.1 kg·m**  
Stability Index **N/A**

*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	43.8°	42.0°	39.1°	37.2°	37.3°	37.6°	37.8°
Beat VMG	3.17	3.87	4.36	4.58	4.61	4.61	4.66
52°	4.86	5.74	6.15	6.50	6.62	6.67	6.82
60°	5.15	5.92	6.35	6.83	7.03	7.12	7.31
75°	5.37	6.04	6.55	7.16	7.76	8.00	8.24
90°	5.57	6.35	6.87	7.22	8.00	8.90	9.62
110°	5.63	6.48	7.41	8.12	8.69	9.24	10.39
120°	5.50	6.36	7.23	8.39	9.28	9.99	11.48
135°	4.95	5.98	6.72	7.62	8.78	10.33	13.25
150°	4.19	5.32	6.04	6.69	7.50	8.57	12.17
Run VMG	3.63	4.60	5.24	5.80	6.49	7.42	10.54
Gybe Angles	143.9°	148.3°	151.0°	147.8°	144.8°	143.0°	141.1°

Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1137.1	930.4	826.6	786.8	780.4	780.3	772.3
52°	740.9	627.4	585.3	553.9	543.9	539.4	527.8
60°	698.6	608.2	567.1	527.0	512.2	505.4	492.7
75°	670.7	596.2	549.3	502.5	463.9	450.1	436.9
90°	646.3	566.6	524.0	498.3	450.0	404.3	374.4
110°	638.9	555.4	486.1	443.3	414.5	389.6	346.5
120°	654.6	566.3	498.3	429.0	388.1	360.3	313.5
135°	727.5	602.2	535.5	472.3	409.9	348.4	271.6
150°	858.9	677.2	595.6	537.8	480.1	420.0	295.8
Run VMG	991.8	782.0	686.8	621.0	554.3	484.9	341.5
Selected Courses							
Windward / Leeward	1064.4	856.2	756.7	703.9	667.4	632.6	556.9
All purpose	817.3	679.4	608.8	562.8	528.4	499.2	450.5

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	725.9	0.8265
All purpose	577.5	1.0389

### Custom scoring options for Russia

Single Number	Time On Distance	Time On Time
Predominantly Upwind	643.2	0.9328
Predominantly Downwind	573.8	1.0456

Club  
Certificate  
2022

Boat  
**Valerii Bykovskii**  
RUS 67005

Novokolomiazhskii av 11-70  
St-Petersburg  
Russia

Data in meters/kilograms (Metric)

**HULL AND APPENDAGES (Lightship Trim)**

Class	<b>RAKETA 670</b>	LOA	<b>6.700</b>	VCGD	<b>-0.155</b>
Measurement	<b>10.05.2022</b>	Max. Beam	<b>2.234</b>	VCGM	<b>-0.313</b>
HIN	<b>RU-RY67005 E 919</b>	Draft	<b>1.641</b>	RM Measured (kg·m)	<b>17.1</b>
Plan review		Displacement	<b>621</b>	RM Default (kg·m)	<b>17.1</b>
Hull construction	<b>Solid</b>	Wetted area	<b>8.02</b>	Limit of positive stability(°)	<b>N/A</b>
Aramid Hull Core	<b>No</b>	IMS L	<b>6.235</b>	Stability Index	<b>N/A</b>
Carbon Rudder	<b>No</b>	LSM0	<b>5.538</b>		
Light stanchions	<b>No</b>	Acc. length	<b>6.735</b>		
Trim tab	<b>No</b>	Sink (kg/mm)	<b>6.43</b>		

**PROPELLER**

Propeller Type **No Propeller**  
Hydro generator **No** PIPA **0.0000**

**RIG**

Forestay tension	<b>Fixed</b>	P	<b>7.974</b>	E	<b>2.876</b>
Inner stay	<b>Fixed</b>	IG	<b>8.270</b>	J	<b>2.145</b>
Carbon mast	<b>No</b>	ISP	<b>9.010</b>	BAS	<b>1.100</b>
Headsail furler	<b>No</b>	MDT1	<b>0.075</b>	FSD	<b>0.000</b>
Mainsail furler	<b>No</b>	MDL1	<b>0.111</b>	SFJ	<b>0.000</b>
Articulated bowsprit	<b>No</b>	MDT2	<b>0.075</b>	SPL	<b>0.000</b>
Non-circular rigging	<b>No</b>	MDL2	<b>0.111</b>	WPL	
Fiber rigging	<b>No</b>	TL	<b>1.000</b>	TPS	<b>3.900</b>
Runners/Checkstays	<b>0</b>	MW	<b>0.111</b>	BD	<b>0.111</b>
Spreaders	<b>1</b>	GO	<b>0.135</b>	MWT	<b>30.10</b>
				MCG	<b>3.250</b>

**FLOTATION AND STABILITY**

Calculation method	<b>VCG estimated</b>	SFFP	<b>0.228</b>	SAFP	<b>6.699</b>
Flotation Date	<b>02.05.2022</b>	FFM	<b>0.729</b>	FAM	<b>0.527</b>
Measurer	<b>RUS 216</b>	FF	<b>0.732</b>	FA	<b>0.529</b>
Comment	<b>YC BEREZKI, Chivtrevo</b>	LCFcl	<b>3.353</b>	LCFsh	<b>3.523</b>
		SG	<b>1.0000</b>	HBI	<b>0.671</b>

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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>
67001	0.37	0.88	1.43	2.14	2.57	15.46	20.03.2022		Dacron	

**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>
001	0.07		0.65	1.23	1.86	2.45	8.00	Yes	No		9.99	20.03.2022		Dacron	235 g/m2

**ASYMMETRIC SPINNAKER**

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<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
67001	10.80	8.80	9.80	5.56	5.70	98%	45.64	20.03.2022		Nylon	