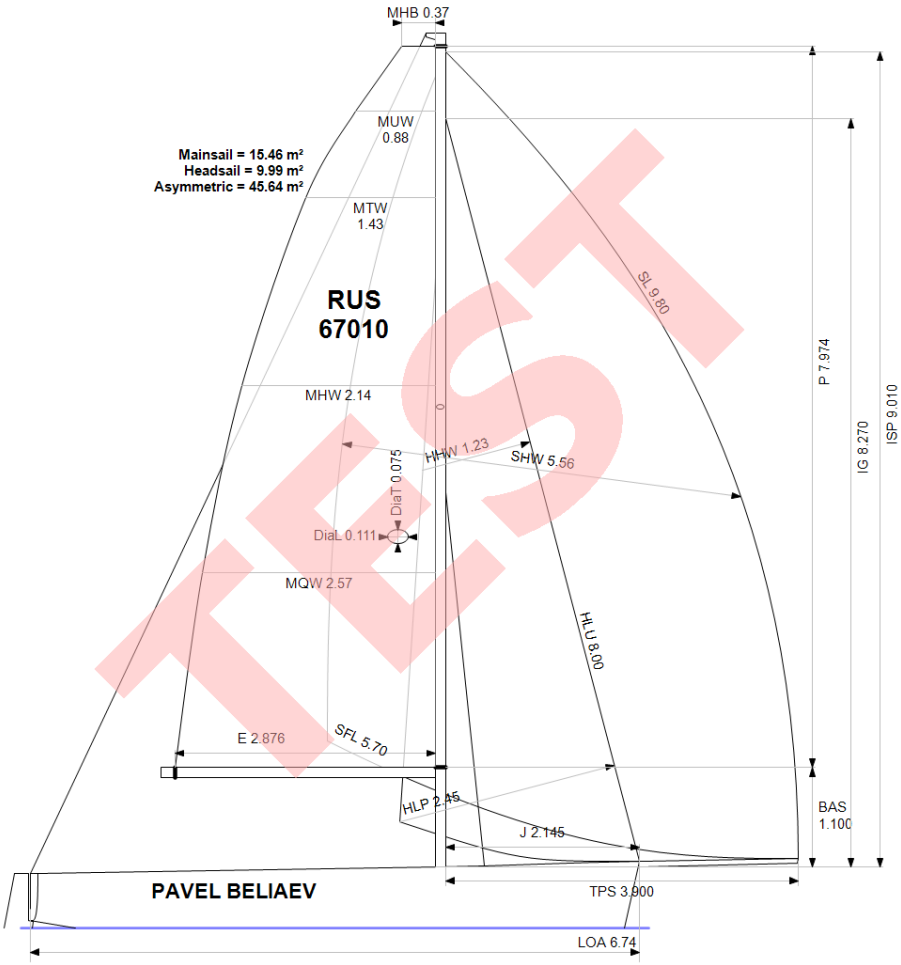
Club
Certificate
2022

Boat
Pavel Beliaev
RUS 67010

Novokolomiazhskii av 11-70
St-Petersburg
Russia

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

GPH: **649.8** CertNo: **6710.1**



TEST

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°

BOAT

Class	**RAKETA 670**
Designer	**Michail Tikhonov**
Builder	**Raketa yachts Ltd**
Age date	**12.2019**
Series date	**10.2018**
Offset file	**SV670.off**
Data file	**RU67010 Beliaev**

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 (m²)

	Measured	Rated
Mainsail	**15.46**	**16.02**
Headsail Luffed	**9.99**	**9.99**
Headsail Flying		
Symmetric		
Asymmetric	**45.64**	**45.64**

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

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**

COMMENTS

7 901 531 07 72

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.

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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

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Data in **meters/kilograms (Metric)**

HULL AND APPENDAGES (Lightship Trim)

Class	**RAKETA 670**	LOA	**6.700**	VCGD	**-0.155**
Measurement	**10.05.2022**	Max. Beam	**2.234**	VCGM	**-0.313**
HIN	**RU-RY67010 L 919**	Draft	**1.641**	RM Measured (kg·m)	**17.1**
Plan review		Displacement	**621**	RM Default (kg·m)	**17.1**
Hull construction	**Solid**	Wetted area	**8.02**	Limit of positive stability(°)	**N/A**
Aramid Hull Core	**No**	IMS L	**6.235**	Stability Index	**N/A**
Carbon Rudder	**No**	LSM0	**5.538**		
Light stanchions	**No**	Acc. length	**6.735**		
Trim tab	**No**	Sink (kg/mm)	**6.43**		

PROPELLER

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

RIG

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

FLOTATION AND STABILITY

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

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MAINSAIL

Id	*MHB*	*MUW*	*MTW*	*MHW*	*MQW*	*Area*	*Meas.Date*	*Maker*	*Material*	*Comment*
67001	0.37	0.88	1.43	2.14	2.57	15.46	20.03.2022		Dacron	

HEADSAIL

Id	*HHB*	*HUW*	*HTW*	*HHW*	*HQW*	*HLP*	*HLU*	*Btn*	*Flying*	*FT*	*Area*	*Meas.Date*	*Maker*	*Material*	*Comment*
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

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