

APH: **595.7**

CDL: **8.589**

GPH: **677.0**

CertNo: **4428.1**

BOAT

Class **KA-1090**
Designer **A. Kozlov**
Builder **OOO PTO "GAIA"**
Age date **01.1999**
Series date **01.1999**
Offset file **KA1090.off**
Data file **RU4428_Roman Oslyabya**

HULL

Length Overall **10.900 m**
Maximum Beam **3.492 m**
Draft **1.958 m**
Displacement **5 160 kg**
DLR **6.3561**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.377%**
Age Allowance **0.487%**

PROPELLER

Installation **Strut**
Type **Solid 3 blades**
Diameter **0.300m**

CREW

Maximum weight **623 kg**
Minimum weight **468 kg * when applied**
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	28.00	28.61
Headsail Luffed	35.65	35.65
Headsail Flying		
Symmetric	68.69	68.69
Asymmetric		

STORM SAIL AREAS (m²)

Trysail **8.46**
Storm Jib **7.98**
Heavy Weather Jib **21.54**

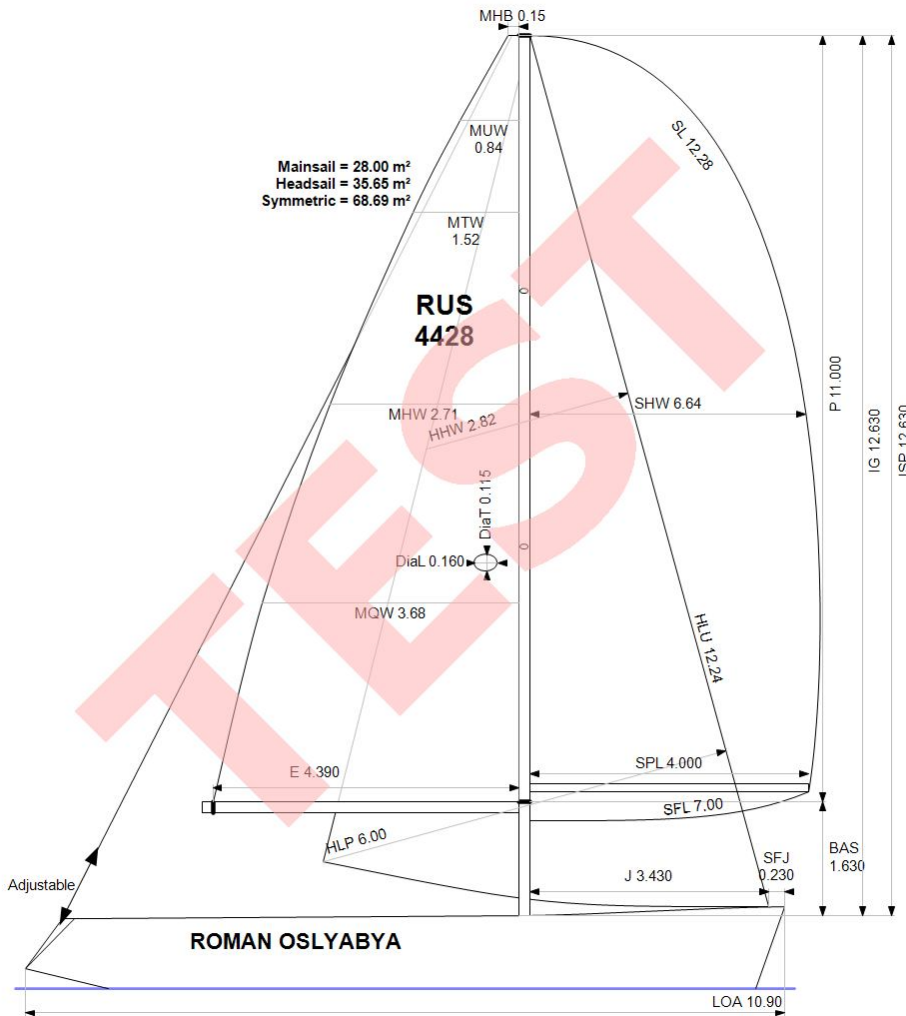
SAIL LIMITS

Headsails **5 * Woven polyester sails**
Spinnakers **4**

STABILITY

Righting Moment **112.3 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	44.4°	42.6°	42.3°	41.2°	40.0°	39.4°	39.4°
Beat VMG	2.98	3.67	4.20	4.67	4.94	5.05	5.11
52°	4.63	5.58	6.34	6.84	7.09	7.19	7.26
60°	4.93	5.90	6.63	7.04	7.28	7.41	7.51
75°	5.15	6.17	6.85	7.21	7.47	7.69	7.94
90°	5.08	6.11	6.88	7.33	7.58	7.80	8.30
110°	5.00	6.17	7.00	7.45	7.83	8.21	8.71
120°	4.84	5.99	6.89	7.37	7.76	8.17	8.98
135°	4.36	5.44	6.42	7.07	7.47	7.86	8.72
150°	3.70	4.76	5.68	6.52	7.09	7.46	8.22
Run VMG	3.20	4.13	4.92	5.68	6.33	6.88	7.61
Gybe Angles	146.6°	150.2°	152.0°	154.1°	161.9°	175.4°	179.0°

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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	1208.5	982.1	856.1	770.1	729.3	712.9	704.4
52°	777.8	645.5	567.6	526.1	507.6	500.4	495.5
60°	730.4	610.2	543.0	511.2	494.5	485.7	479.6
75°	698.9	583.6	525.9	499.6	482.1	468.4	453.2
90°	709.2	589.4	523.1	491.3	474.9	461.3	433.5
110°	720.5	583.4	514.2	483.5	459.7	438.3	413.2
120°	743.8	601.5	522.6	488.4	463.9	440.6	401.1
135°	825.4	661.7	561.2	509.0	481.7	457.8	412.8
150°	973.5	755.9	634.0	552.3	507.8	482.3	438.2
Run VMG	1124.1	872.6	731.0	634.2	569.0	523.1	472.8
Selected Courses							
Windward / Leeward	1166.3	927.4	793.6	702.1	649.1	618.0	588.6
All purpose	893.1	721.2	625.4	568.2	536.0	516.1	491.3

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	741.5	0.8092
All purpose	595.7	1.0072

Custom scoring options for Russia

Single Number	Time On Distance	Time On Time
Predominantly Upwind	647.7	0.9264
Predominantly Downwind	610.0	0.9837

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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	KA-1090	LOA	10.900	VCGD	-0.005
Measurement	24.05.2022	Max. Beam	3.492	VCGM	0.039
HIN		Draft	1.958	RM Measured (kg·m)	112.3
Plan review		Displacement	5 160	RM Default (kg·m)	112.3
Hull construction	Solid	Wetted area	24.12	Limit of positive stability(°)	N/A
Aramid Hull Core	No	IMS L	9.658	Stability Index	N/A
Carbon Rudder	No	LSM0	9.328		
Light stanchions	No	Acc. length	10.900		
Trim tab	No	Sink (kg/mm)	17.79		

PROPELLER

Propeller Type	Solid 3 blades				
Installation	Strut	PRD	0.300	EDL	2.250
		ST3	0.170	ST1	0.048
Twin screw	No	PBW	0.080	ST4	0.098
Hydro generator	No	PIPA	0.0112	ST2	0.170
		ST5	0.200		

RIG

Forestay tension	Aft	P	11.000	E	4.390
Inner stay	None Fitted	IG	12.630	J	3.430
Carbon mast	No	ISP	12.630	BAS	1.630
Headsail furler	No	MDT1	0.115	FSD	No Foil
Mainsail furler	No	MDL1	0.160	SFJ	0.230
Articulated bowsprit	No	MDT2		SPL	4.000
Non-circular rigging	No	MDL2		WPL	
Fiber rigging	No	TL	No Taper	TPS	
Runners/Checkstays	0	MW		BD	
Spreaders	2	GO		MWT	
				MCG	

FLOTATION AND STABILITY

Calculation method	VCG estimated	SFFP	0.970	SAFP	10.200
Flotation Date	24.05.2022	FFM		FAM	
Measurer		FF	1.160	FA	1.007
Comment		LCFcl	5.590	LCFsh	5.853
		SG	1.0000	HBI	1.048

INVENTORY

TANKS	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	G1	Gaz	0.9000	27	27	10.50	
	F1	Fuel fixed	0.9000	40	40	7.50	
			<i>Total deductible</i>		60	8.71	
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>
	B1	Battery	100 A/ч		30	5.00	
	B2	Battery	100 A/ч		30	5.00	
	E	Engine	Volvo Penta 2002 18 л/с, Sail drive		292	7.20	
	A1	Anchor			45	0.10	
	A2	Anchor			40	10.00	
	T	Tools			40	7.50	
	DG	Deck Gear			40		
	SE	Safety Equipment			40		
			<i>Total deductible</i>		85	4.72	

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MAINSAIL

<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	0.15	0.84	1.52	2.71	3.68	28.00	24.05.2022		Dacron	

HEADSAIL

<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>
1	0.00	0.68	1.39	2.82	4.38	6.00	12.24	No	No		35.65	24.05.2022		Dacron	
2	0.00	0.40	0.77	1.54	2.38	3.24	12.00	No	No		19.04	24.05.2022		Dacron	

SYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
1	12.26	12.30	12.28	6.64	7.00	68.69	24.05.2022		Nylon	