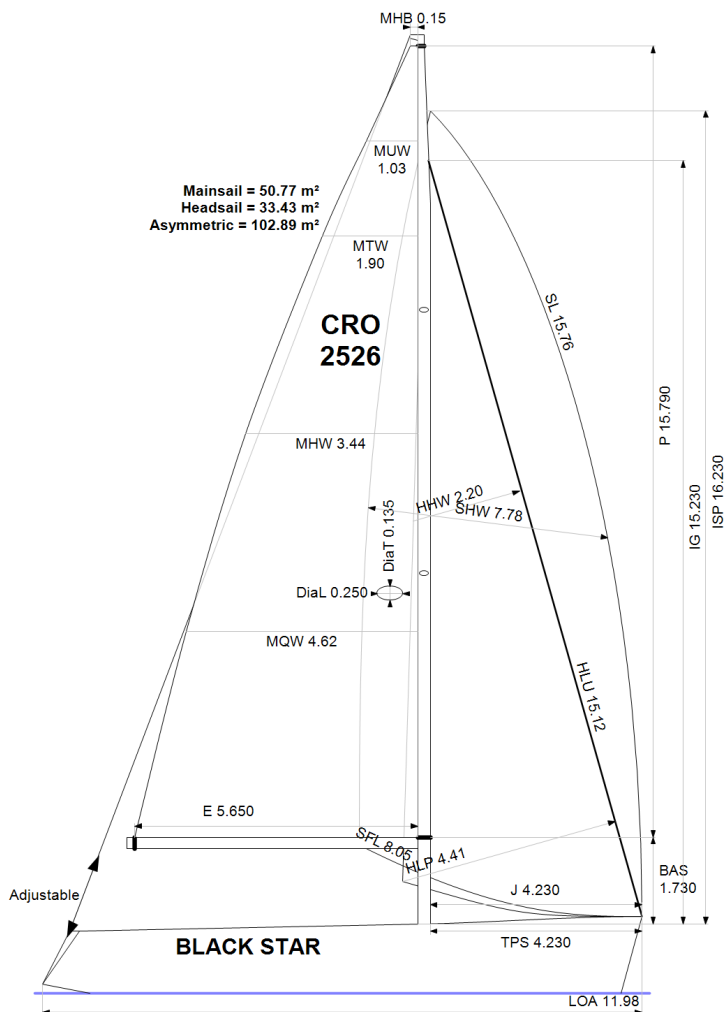


APH: **546.3**

CDL: **10.002**

GPH: **615.9**

CertNo: **076/23**



BOAT

Class **Bavaria CR 41S**
Designer **Farr**
Builder **Bavaria**
Age date **01/2017**
Series date **11/2010**
Offset file **BaCr40S.OFF**
Data file **CRO2526**

HULL

Length Overall **11.977 m**
Maximum Beam **3.942 m**
Draft **2.249 m**
Displacement **8,681 kg**
DLR **7.0851**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.280%**
Age Allowance **0.422%**

PROPELLER

Installation **Strut**
Type **Folding 3 blades**
Diameter **0.410m**

CREW

Maximum weight **758 kg**
Minimum weight **569 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	50.77	51.57
Headsail Luffed	33.43	33.43
Headsail Flying		
Symmetric		
Asymmetric	102.89	102.89

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

STORM SAIL AREAS (m²)

Trysail **15.62**
Storm Jib **11.60**
Heavy Weather Jib **31.32**

SAIL LIMITS

Headsails **6**
Spinnakers **5**

STABILITY

Righting Moment **N/A**
Stability Index **N/A**

COMMENTS

SPL = 4.835

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	43.6°	41.5°	40.2°	39.0°	38.4°	38.2°	39.0°
Beat VMG	3.40	4.17	4.74	5.14	5.34	5.43	5.48
52°	5.22	6.22	6.92	7.36	7.58	7.69	7.78
60°	5.51	6.50	7.15	7.55	7.78	7.91	8.02
75°	5.71	6.69	7.32	7.71	7.98	8.18	8.42
90°	5.78	6.89	7.57	7.95	8.17	8.30	8.71
110°	5.76	6.94	7.65	8.09	8.46	8.79	9.24
120°	5.55	6.73	7.51	8.00	8.40	8.79	9.53
135°	4.95	6.14	7.06	7.67	8.09	8.49	9.29
150°	4.17	5.31	6.25	6.99	7.49	7.85	8.46
Run VMG	3.61	4.60	5.42	6.05	6.48	7.04	7.87
Gybe Angles	143.3°	147.1°	148.0°	148.4°	150.2°	173.6°	177.2°



Club
Certificate
2023

Boat
Black Star
CRO 2526

Hrvatski jedriličarski savez
Osječka 11
21000 Split
CROATIA



Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1058.4	863.3	759.0	700.3	674.0	663.0	657.4
52°	690.0	578.7	520.0	489.4	474.7	468.2	463.0
60°	653.1	554.2	503.4	476.9	462.7	455.0	448.8
75°	630.6	538.0	491.6	467.2	451.3	440.1	427.5
90°	623.3	522.2	475.5	452.7	440.9	433.5	413.2
110°	625.3	518.8	470.8	445.2	425.6	409.6	389.6
120°	648.1	534.7	479.1	450.3	428.6	409.7	377.9
135°	727.5	585.9	509.6	469.5	444.8	423.9	387.6
150°	864.0	678.1	575.7	515.2	480.9	458.8	425.6
Run VMG	997.7	783.0	664.7	594.9	555.3	511.6	457.2
Selected Courses							
Windward / Leeward	1028.1	823.2	711.9	647.6	614.6	587.3	557.3
All purpose	787.5	642.5	566.5	524.5	501.6	485.1	464.1

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	679.9	0.8825
All purpose	546.3	1.0983

Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Bavaria CR 41S	LOA	11.977	VCGD	0.073
Measurement	31/03/2017	Max. Beam	3.942	VCGM	0.124
HIN		Draft	2.249	RM Rated (kg·m)	230.3
Plan review		Displacement	8,681	Limit of positive stability(°)	N/A
Hull construction	Solid	Wetted area	34.19	Stability Index	N/A
Carbon Rudder	No	IMS L	10.911		
Light stanchions	No	LSM0	10.700		
Trim tab	No	Acc. length	11.977		
		Sink (kg/mm)	25.85		

PROPELLER

Propeller Type	Folding 3 blades			
Installation	Strut	PRD	0.410	EDL ST3
Twin screw	No	PBW		ST1 ST4
Hydro generator	No	PIPA	0.0007	ST2 ST5

RIG

Forestay tension	Aft	P	15.790	E	5.650
Inner stay	None Fitted	IG	15.230	J	4.230
Carbon mast	No	ISP	16.230	BAS	1.730
Headsail furler	Yes	MDT1	0.135	FSD	0.038
Mainsail furler	No	MDL1	0.250	SFJ	0.000
Articulated bowsprit	No	MDT2		SPL	
Non-circular rigging	No	MDL2		WPL	
Fiber rigging	No	TL	Taper	TPS	4.230
Runners/Checkstays	0	MW		BD	0.225
Spreaders	2	GO		MWT	
Rotating mast	No			MCG	

FLOTATION AND STABILITY

Calculation method	RM estimated	SFFP	0.502	SAFP	11.242
Flotation Date	31/03/2017	FFM		FAM	
Measurer		FF	1.527	FA	1.230
Comment		LCFcl	6.461	LCFsh	6.746
		SG	1.0255	HBI	1.384



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Osječka 11
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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>Comment</i>
1	0.15	1.03	1.90	3.44	4.62	50.77	25/03/2017	

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 FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
1	0.05	0.57	1.10	2.20	3.32	4.41	15.12	No	No	33.43	25/03/2017	

ASYMMETRIC SPINNAKER

<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>Comment</i>
1	16.99	14.53	15.76	7.78	8.05	97%	102.89	21/04/2022	