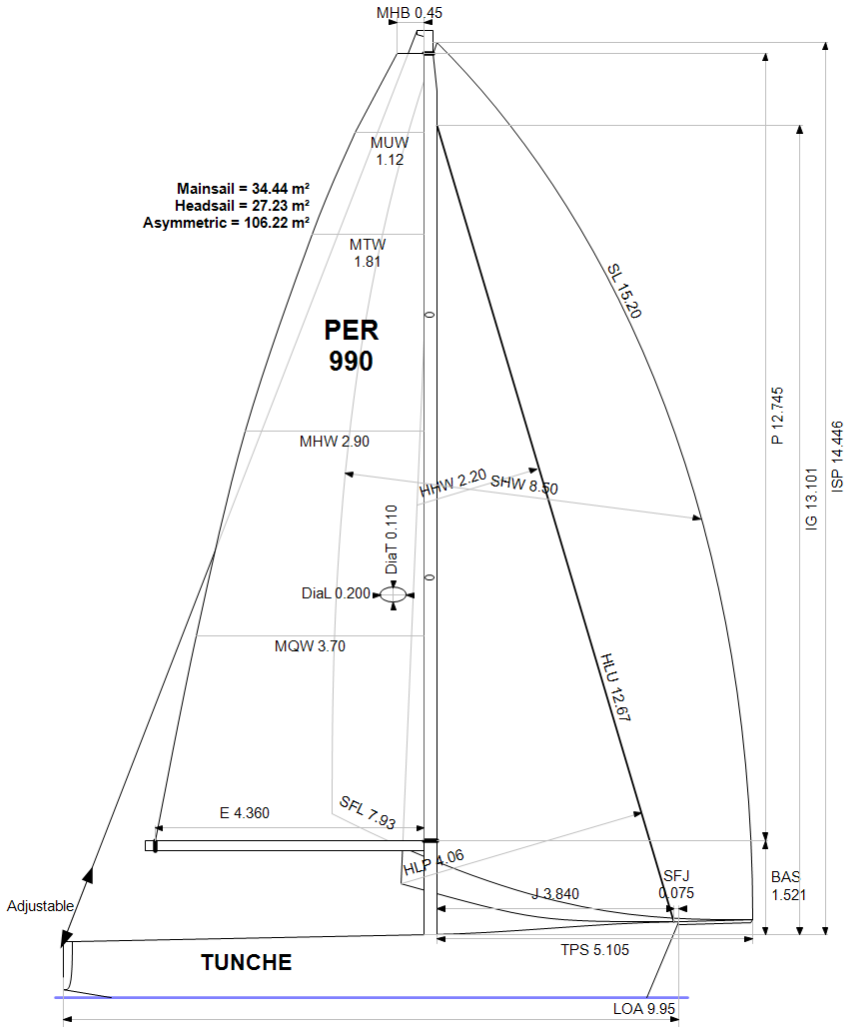
International Certificate 2023

Boat
TUNCHE
PER-990

Asociacion de Vela Oceanica
del Pero - AVOP
Roberto Peschiera - Rating Officer
peschiera56@gmail.com

APH: **546.6** CDL: **8.986**

GPH: **609.9** CertNo:



BOAT

Class	**J-99**
Designer	**J Boats**
Builder	**J Composites**
Age date	**07/2020**
Series date	**01/2018**
Offset file	**J99-LK.off**
Data file	**PER099**

HULL

Length Overall	**9.950 m**
Maximum Beam	**3.410 m**
Draft	**1.990 m**
Displacement	**3,863 kg**
DLR	**6.0028**
IMS Division	**Cruiser/Racer**
Dynamic Allowance	**0.100%**
Age Allowance	**0.163%**

PROPELLER

Installation	**Strut**
Type	**Folding 2 blades**
Diameter	**0.410m**

CREW

Maximum weight	**571 kg**
Minimum weight	**428 kg** ** when applied*
Non Manual Power	**No**
Crew Arm Extension	

SAIL AREAS (m²)

	Measured	Rated
Mainsail	**34.44**	**35.23**
Headsail Luffed	**27.23**	**27.23**
Headsail Flying		
Symmetric		
Asymmetric	**106.22**	**106.22**

(1 asymmetric(s) with SHW/SFL < 85%)

STORM SAIL AREAS (m²)

Trysail	**9.73**
Storm Jib	**8.59**
Heavy Weather Jib	**23.18**

SAIL LIMITS

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

STABILITY

Righting Moment	**100.9 kg·m**
Stability Index	**117.1**

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°	40.8°	38.8°	37.6°	37.2°	37.0°	37.6°
Beat VMG	3.54	4.31	4.83	5.09	5.20	5.25	5.27
52°	5.38	6.32	6.84	7.09	7.21	7.28	7.34
60°	5.66	6.54	7.00	7.26	7.41	7.49	7.58
75°	6.00	6.85	7.22	7.42	7.65	7.82	8.00
90°	6.21	7.02	7.46	7.76	7.96	8.12	8.43
110°	6.00	6.98	7.50	7.89	8.26	8.65	9.43
120°	5.84	6.89	7.46	7.94	8.39	8.84	9.76
135°	5.24	6.45	7.18	7.69	8.19	8.73	10.54
150°	4.44	5.59	6.52	7.12	7.48	7.83	8.60
Run VMG	3.84	4.84	5.65	6.17	6.48	6.98	7.72
Gybe Angles	143.9°	147.8°	149.2°	150.5°	169.4°	174.8°	175.7°

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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	1017.3	836.2	745.1	707.3	692.9	685.5	683.1
52°	668.9	569.2	526.2	507.5	499.4	494.7	490.7
60°	636.5	550.8	514.6	496.2	486.2	480.7	475.1
75°	599.9	525.8	498.4	485.3	470.4	460.2	449.8
90°	579.7	512.6	482.9	464.0	452.5	443.5	427.1
110°	600.0	515.6	480.1	456.0	436.0	416.1	381.8
120°	616.6	522.1	482.4	453.6	429.1	407.2	368.8
135°	687.6	558.1	501.6	468.4	439.7	412.2	341.6
150°	811.3	644.1	552.1	505.9	481.2	459.8	418.7
Run VMG	936.8	743.7	637.6	583.9	555.4	515.6	466.2
Selected Courses							
Windward / Leeward	977.0	789.9	691.3	645.6	624.2	600.6	574.7
All purpose	749.6	622.5	561.1	530.2	512.0	496.4	471.7

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	673.4	0.8910
All purpose	546.6	1.0976

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AVOP

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

HULL AND APPENDAGES (Lightship Trim)

Class	**J-99**	LOA	**9.950**	VCGD	**-0.265**
Measurement	**24/06/2020**	Max. Beam	**3.410**	VCGM	**-0.134**
HIN		Draft	**1.990**	RM Rated (kg·m)	**100.9**
Plan review		Displacement	**3,863**	Limit of positive stability(°)	**120.7**
Hull construction	**Solid**	Wetted area	**21.15**	Stability Index	**117.1**
Carbon Rudder	**No**	IMS L	**9.057**		
Light stanchions	**No**	LSM0	**8.632**		
Trim tab	**No**	Acc. length	**9.950**		
		Sink (kg/mm)	**16.20**		

PROPELLER

Propeller Type	**Folding 2 blades**						
Installation	**Strut**	PRD	**0.410**	EDL	**1.840**	ST3	**0.180**
Twin screw	**No**	PBW	**0.107**	ST1	**0.065**	ST4	**0.110**
Hydro generator	**No**	PIPA	**0.0037**	ST2	**0.180**	ST5	**0.305**

RIG

Forestay tension	**Aft**	P	**12.745**	E	**4.360**
Inner stay	**None Fitted**	IG	**13.101**	J	**3.840**
Carbon mast	**No**	ISP	**14.446**	BAS	**1.521**
Headsail furler	**No**	MDT1	**0.110**	FSD	**0.058**
Mainsail furler	**No**	MDL1	**0.200**	SFJ	**0.075**
Articulated bowsprit	**No**	MDT2	**0.110**	SPL	
Non-circular rigging	**No**	MDL2	**0.140**	WPL	
Fiber rigging	**No**	TL	**0.615**	TPS	**5.105**
Runners/Checkstays	**0**	MW	**0.160**	BD	**0.160**
Spreaders	**2**	GO	**0.160**	MWT	**111.50**
Rotating mast	**No**			MCG	**5.000**

FLOTATION AND STABILITY

Calculation method	**Poles inclining**	SFFP	**0.590**	SAFP	**9.870**	W1	**60.0**	PD1	**550.6**	WD	**11.800**
Flotation Date	**24/06/2020**	FFM	**1.205**	FAM	**0.848**	W2	**60.0**	PD2	**551.8**	PLM	**9000.00**
Measurer	**FIV-174**	FF	**1.210**	FA	**0.847**	W3	**60.0**	PD3	**551.0**	GSA	**1.0**
Comment	**buone condizioni**	LCFcl	**5.433**	LCFsh	**5.693**	W4	**60.0**	PD4	**547.6**	RSA	**1.0**
		SG	**1.0253**	HBI	**1.014**					RM	**101.3**

INVENTORY

TANKS	***Id***	***Description***	***Sp.Wght***	***Capacity***	***Condition***	***LCG***	***VCG***
	B7	gasolio pvc	0.9000	50	~~35~~	4.14	
	E3	agua odre		100	0	7.23	
				Total deductible	**32**	**4.14**	

OTHER ITEMS	***Id***	***Kind***	***Description***	***Weight***	***LCG***	***VCG***
	B5	Miscellaneous	cocina		5.69	
	E7	Battery	batreia de 12 placas		4.64	
	C5	Battery	bateria de 12 placas		6.04	
	C4	Engine	Volvo D1-20			
			Total deductible			

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MAINSAIL

Id	*MHB*	*MUW*	*MTW*	*MHW*	*MQW*	*Area*	*Meas.Date*	*Comment*
M1	0.45	1.12	1.81	2.90	3.70	34.44	26/04/2021	

HEADSAIL

Id	*HHB*	*HUW*	*HTW*	*HHW*	*HQW*	*HLP*	*HLU*	*Btn*	*Flying FT*	*Area*	*Meas.Date*	*Comment*
J1	0.12	0.65	1.22	2.20	3.15	4.06	12.67	Yes	No	27.23	03/02/2022	remedicion
J1.5	0.08	0.58	1.13	2.11	3.12	4.10	12.76	Yes	No	26.84	03/02/2022	

ASYMMETRIC SPINNAKER

Id	*SLU*	*SLE*	*SL*	*SHW*	*SFL*	*Ratio*	*Area*	*Meas.Date*	*Comment*
A2	16.45	13.95	15.20	8.50	7.93	107%	106.22	26/04/2021	CELESTE/BCO
A2-23	16.39	13.95	15.17	8.53	7.75	110%	105.86	28/10/2023	GRIS
A1.5	16.10	13.77	14.94	8.44	7.75	109%	103.33		ROJO
A0	14.29	13.14	13.72	5.40	7.15	76%	65.72	26/04/2021	