

APH: **556.5** CDL: **9.621**

GPH: **626.6** CertNo: **PER112**

BOAT

Class **First 42**
Designer **GERMAN FRERS**
Builder **BENETEAU**
Age date **03/1983**
Series date **03/1983**
Offset file **nais91.OFF**
Data file **PER120**

HULL

Length Overall **12.800 m**
Maximum Beam **3.980 m**
Draft **2.211 m**
Displacement **9,436 kg**
DLR **7.7234**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.368%**
Age Allowance **0.487%**

PROPELLER

Installation **Shaft exposed**
Type **Folding 2 blades**
Diameter **0.440m**

CREW

Maximum weight **700 kg**
Minimum weight **525 kg * when applied**
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	35.40	35.85
Headsail Luffed	58.46	58.46
Headsail Flying		
Symmetric	115.81	115.81
Asymmetric	118.74	118.74

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

STORM SAIL AREAS (m²)

Trysail **10.74**
Storm Jib **13.23**
Heavy Weather Jib **35.70**

SAIL LIMITS

Headsails **1**
Spinnakers **4** * Asymmetric may be tacked on the pole

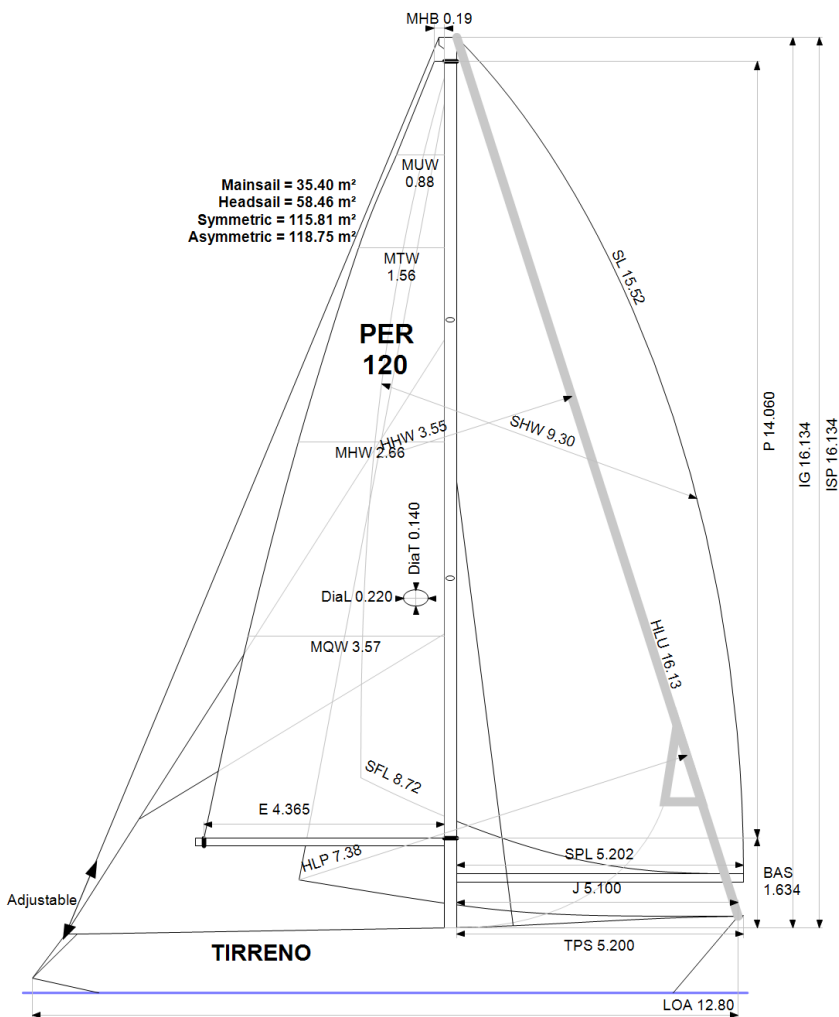
STABILITY

Righting Moment **186.5 kg·m**
Stability Index **116.7**

COMMENTS

NUEVO ARMADOR ex AKUN (antes NAISAN)

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	43.2°	41.4°	41.4°	40.6°	39.4°	38.8°	39.3°
Beat VMG	3.38	4.07	4.62	5.01	5.20	5.30	5.35
52°	5.17	6.11	6.86	7.23	7.41	7.49	7.55
60°	5.47	6.43	7.10	7.42	7.59	7.69	7.77
75°	5.70	6.69	7.26	7.57	7.78	7.94	8.14
90°	5.62	6.63	7.32	7.67	7.84	8.06	8.44
110°	5.54	6.74	7.45	7.83	8.15	8.44	8.79
120°	5.39	6.57	7.36	7.78	8.13	8.50	9.12
135°	4.90	6.03	7.00	7.54	7.89	8.24	8.99
150°	4.16	5.23	6.16	7.00	7.50	7.84	8.50
Run VMG	3.60	4.53	5.34	6.10	6.72	7.26	7.94
Gybe Angles	144.4°	148.4°	149.3°	153.8°	162.8°	175.4°	179.0°



International
Certificate
2022

Boat
TIRRENO
PER-120

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



Time Allowances in secs/NM

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1065.2	883.7	779.5	718.2	692.3	679.5	673.5
52°	696.6	588.7	524.6	497.6	486.1	480.9	476.8
60°	658.6	559.5	507.3	485.4	474.1	468.3	463.4
75°	631.9	538.5	495.8	475.8	462.9	453.3	442.3
90°	640.9	542.9	491.7	469.5	459.1	446.8	426.6
110°	649.4	533.9	483.3	459.9	442.0	426.5	409.4
120°	667.7	548.0	488.8	462.7	442.6	423.7	394.7
135°	734.8	597.1	514.5	477.5	456.1	436.7	400.2
150°	866.4	688.8	584.2	514.2	480.0	459.4	423.4
Run VMG	1000.5	795.4	674.6	590.2	535.3	495.9	453.5
Selected Courses							
Windward / Leeward	1032.8	839.5	727.0	654.2	613.8	587.7	563.5
All purpose	796.1	655.7	577.7	534.1	510.5	494.5	475.3

Single Number Scoring Options

Course	Time On Distance	Time On Time
Windward / Leeward	687.0	0.8734
All purpose	556.5	1.0783



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	First 42	LOA	12.800	VCGD	0.105
Measurement	20/05/2014	Max. Beam	3.980	VCGM	0.100
HIN		Draft	2.211	RM Measured (kg·m)	186.5
Plan review		Displacement	9,436	RM Default (kg·m)	196.0
Hull construction	Solid	Wetted area	33.12	Limit of positive stability(°)	111.8
Carbon Rudder	No	IMS L	10.595	Stability Index	116.7
Light stanchions	No	LSM0	10.689		
Trim tab	No	Acc. length	12.800		
		Sink (kg/mm)	23.56		

PROPELLER

Propeller Type	Folding 2 blades										
Installation	Shaft exposed	PRD	0.440	PSD	0.032	PSA	20.0°	ST1	0.016	ST4	0.058
Twin screw	No	PBW	0.109	PHD	0.078	ESL	0.900	ST2	0.102	ST5	0.180
Hydro generator	No	PIPA	0.0060	PHL	0.123			ST3	0.105		

RIG

Forestay tension	Aft	P	14.060	E	4.365
Inner stay	Fixed	IG	16.134	J	5.100
Carbon mast	No	ISP	16.134	BAS	1.634
Headsail furler	Yes	MDT1	0.140	FSD	0.038
Mainsail furler	No	MDL1	0.220	SFJ	
Articulated bowsprit	No	MDT2	0.140	SPL	5.202
Non-circular rigging	No	MDL2	0.220	WPL	
Fiber rigging	No	TL	0.000	TPS	5.200
Runners/Checkstays	2	MW	0.220	BD	0.150
Spreaders	2	GO	0.260	MWT	
				MCG	

FLOTATION AND STABILITY

Calculation method	Poles inclining	SFFP	0.600	SAFP	11.980	W1	95.0	PD1	480.1	WD	11.875
Flotation Date	20/05/2014	FFM	1.375	FAM	1.034	W2	95.0	PD2	480.6	PLM	9000.00
Measurer		FF	1.375	FA	1.034	W3	95.0	PD3	477.6	GSA	1.0
Comment		LCFcl	6.927	LCFsh	7.204	W4	95.0	PD4	467.5	RSA	1.0
		SG	1.0253	HBI	1.176						



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>
M2	0.19	0.88	1.56	2.66	3.57	35.40	07/07/2022	DOYLE	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>
G2	0.09	0.91	1.76	3.55	5.43	7.38	16.13	No	No		58.46	06/01/2022	DOYLE	Carbon	
F1	0.13	0.69	1.26	2.43	3.63	4.88	16.03	Yes	No		39.34	02/09/2014	DOYLE	Carbon	

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>
S1	15.71	15.71	15.71	8.72	9.35	115.81	10/08/2022	DOYLE	Nylon	VERDE

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>Maker</i>	<i>Material</i>	<i>Comment</i>
A1	16.50	14.53	15.52	9.30	8.72	107%	118.74	06/01/2022		Nylon	NUEVO ROJO