



# 6



## INTERNATIONAL SIX METRE CLASS

Yacht's Name	<b>TITIA</b>		
National Letters & Sail Number	<b>ESP 72</b>	Fleet	<b>CLASSIC</b>
Designer	<b>David Boyd</b>	Design Year	<b>1952</b>
Builder	<b>Woodnut and Co.</b>	Build Year	<b>1952</b>
Owner	<b>Mauricio Sanchez-Bella</b>	World Sailing Building Plaque no. (If built after 1 Jan 1991)	<b>n/a</b>

### RATING CERTIFICATION

This yacht has been measured by the measurer(s) noted below, who is(are) approved by the yacht's Member National Authority (MNA) or by ISMA, to certify that it has been found to rate not more than 6.000:

Dated (certification start date)	<b>06/07/2023</b>
Measured by	<b>Antonio Cardona Espin</b>
On Behalf of MNA	<b>RFEV</b>
Valid until	<b>05/07/2027</b>
Supersedes	<b>06/07/2023</b>
Place & Time of Measurements	<b>Sanxenxo 7:00</b>
Conditions at Flotation (wind, water & ten	<b>2 knots light wind with flat water</b>
SG (specific gravity) of Water at Flotation	<b>1,025 kg/m<sup>3</sup></b>
Any correction applied to flotation/freeboards due to conditions (mm)	<b>0</b> (Salt Water 1.025 kg/m <sup>3</sup> & Immersion in salt/fresh water = 0.012m)
Loadcell details/calibration	<b>KERN HFA 5T -3WF19012330 CALIBRATION 10-4-23</b>

Stamp of MNA (or ISMA):



MNA (or ISMA) signature:

**RATING CALCULATION****OVERALL LENGTH**

			11,246	11,246
Overhang Forward to L1	1,482			
Overhang Aft to L1	1,953			
Total Overhang (Subtract)	3,435			

**MEASURED LENGTH (L1 to L1)**

			7,811	
Girth at Bow	0,797			
Twice vertical Height at Bow (Subtract)	0,600			
O at Bow	0,197			
Add 1 1/2 O at Bow (min 0.270 m)			0,295	
Girth at Stern	1,940			
Twice vertical Height at Stern (Subtract)	1,182			
O at Stern	0,758			
Add 1/3 O at Stern (min 0.200 m)			0,252	
Add any penalty at O2 (see Rule 3. Length - only for boats after 1 Nov 1970)			0,000	
Add any Beam and/or Displacement Penalty			0,000	

**CORRECT LENGTH L (Sum of L1 Length and O Bow/Stern Girth Corrections)**

				8,358
Skin d to d1 Port	1,741			
Chain d to d1 Port	1,737			
d Port	0,004		0,004	
Skin d to d1 Starboard	1,746			
Chain d to d1 Starboard	1,741			
d Starboard	0,005		0,005	
Add d			0,009	

**GIRTH MIDSHIP DIFFERENCES (2d)**

			0,018	
<b>RATED LENGTH (Sum of Correct Length and Midship Girth Differences 2d)</b>				8,376

(Calc. only nec. for boats after 1 Nov 1970)	Actual	Calc.
Mean Freeboard Bow O	0,859	0,859
Mean Freeboard Midship d	0,715	0,715
Mean Freeboard Stern O	0,681	0,681
Sum of Freeboards		2,255
Classic Immersion Marks d Freeboard (only for Classic Appendix A boats)		n/a

**Subtract F, 1/3 FREEBOARD (max 0.730)**      0,751      0,730      7,646

**Add Square root of TOTAL RATED SAIL AREA**      6,575

**TOTAL OF MEASUREMENTS**      14,221

Add any Tumblehome and/or Draught Penalty      0,000      14,221

**RATING Calculation - Total of Measurements (max 14.222)/2.37 (= not more than 6.000)**      6,000

**PENALTIES**

Overhang Forward to L (LWL)	1,712
Overhang Aft to L (LWL)	2,267
Subtract from overall length	3,979
Add any increase to Aft L location due to Projections, Notches or Hollows (see Measurement Instructions M18 & M20, including for rudder flaps extending aft further than CL of rudder stock axis)	0,000

**WATERLINE LENGTH (LWL)**

Minimum Displacement for Zero Penalty [ $m^3$ ] $(0.2 * LWL + 0.15)^3$	4,119	7,267
Minimum Weight for Zero Penalty [metric tons] (water of sg 1.025 tonne/ $m^3$ )	4,221	

**DISPLACEMENT****WEIGHT [metric tons] (actual including added ballast)**

Equivalent LWL for Zero Penalty $((\text{weight}/1.025)^{3/0.15})/0.2$	7,280	4,249
Difference	0,000	

**DISPLACEMENT PENALTY (add 2x to L)****BEAM** (minimum beam at 1/3 of midship freeboard)

Actual beam at 1/3 of midship freeboard	1,830	
Difference (if positive)	1,850	
	0,000	

**BEAM PENALTY (add 4x to L, only for yachts laid down after Sept 1937)****TUMBLEHOME** (max 2x 2% of Extreme Beam)

Extreme Beam	0,074	
Beam at deck	1,850	
Difference (if positive)	1,820	
	0,000	

**TUMBLEHOME PENALTY (add 3x excess to Rating)****DRAUGHT** (actual at deepest point) keel, rudder or wing tips (span not to exceed 1830mm)

Maximum Draught for Zero Penalty $(0.16 * LWL + 0.5)$	1,660	
Difference (if positive)	1,662	
	0,000	

**DRAUGHT PENALTY (add 3x excess to Rating)****SAIL PLAN**

Maximum Height of Sail Plan (max 13.000m above datum)	13,000	J	3,600	I	9,748
Boom Height (min 400 to 1100mm from datum)	0,900	A	12,130	B	4,670
Foretriangle area (max (J or spin boom)xl/2)	17,546			Rated Mainsail Area (AxB/2)	28,323
Rated Foretriangle Area (85% of measured area)	14,914			Total Rated Sail Area (S)	43,237
				vs	6,575

Spinnaker boom (length in extension to outer end from fwd face of the mast)	3,500	110% J	3,960
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**Sail Limits**

Mainsail	Max girth at 1/2 height (MHW 67%)	3,128	Max girth at 3/4 height (MTW 39%)	1,821
Genoa	Max foot length (HFL J + 3.000)	6,600		
Spinnaker	Max luff SLU/leech SLE length (80% of VJ+VI +2.500m)	10,813	Max foot breadth (SFL 250% J)	9,000

**SPARS MEASUREMENTS**

MAST CG from datum point (90mm above sheer) (CG position min 4.940m above datum)	5,285	Mast Weight (min 63.51kg)	77,1	Material	WOOD
	Deck (min 132.7cm <sup>2</sup> )	1/2 Height (min 147.4cm <sup>2</sup> )	Forestay (min 95cm <sup>2</sup> )	Head (min 37.4cm <sup>2</sup> )	

MAST dimensions [mm]	130x160	130x160	130x160	062x083	
MAST sectional area [cm <sup>2</sup> ]	172	172	172	42	Builder & Yr
MAST section ratio [max 1.35]	1,231	1,231	1,231	1,339	

**DECK MEASUREMENTS**

	Length	Aft width	Fwd width	Area m <sup>2</sup>	Distance to sheer
Cockpit dimensions:					
(max 2.700m <sup>2</sup> & fwd (or single) cockpit	0,000	0,000	0,000	0,000	200mm
fwd keyhole	1,930	0,850	0,630	1,428	Total Area m <sup>2</sup>
sheer distance min 200mm) aft keyhole	1,170	0,453	1,214	0,530	1,958
Hatch dimensions (max 0.400m <sup>2</sup> & sheer min 300mm)	0,500	0,500	0,500	0,250	Distance to sheer
					300mm

**NOTES & COMMENTS:**

