6

INTERNATIONAL SIX METRE CLASS

Yacht's Name	***Battlecry***		
National Letters & Sail Number	***GBR 89***	**Fleet**	***OPEN***
Designer	*Ian Howlett*	**Design Year**	*1988*
Builder	*Webb Brothers, Hamble*	**Build Year**	*1988*
Owner	*Jeremy Thorp*	**World Sailing Building Plaque no.** (If built after 1 Jan 1991)	*n/a*

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)	***15/08/2023***
Measured by	***David Chivers***
On Behalf of MNA	***RYA***
Valid until	***14/08/2027***
Supersedes	***02/08/2021***
Place & Time of Measurements	***Universal Marina***
Conditions at Flotation (wind, water & te	***Fine, smooth water light wind***
SG (specific gravity) **of Water at Flotatio**	***1.025*** kg/m³
Any correction applied to flotation/freeboards due to conditions (mm)	***0***
	(Salt Water 1.025 kg/m³ & Immersion in salt/fresh water = 0.012m)
Loadcell details/calibration	***RYA Certified Load Cell***

Stamp of MNA (or ISMA):

RYA TECHNICAL

MNA (or ISMA) signature:

RATING CALCULATION

OVERALL LENGTH		10.449	**10.449**
Overhang Forward to L1	1.215		
Overhang Aft to L1	1.602		
Total Overhang (Subtract)	2.817		
MEASURED LENGTH (L1 to L1)		**7.632**	
Girth at Bow	0.817		
Twice vertical Height at Bow (Subtract)	0.600		
O at Bow	0.217		
Add 1 1/2 O at Bow (min 0.270 m)		**0.325**	
Girth at Stern	2.109		
Twice vertical Height at Stern (Subtract)	1.134		
O at Stern	0.975		
Add 1/3 O at Stern (min 0.200 m)		**0.325**	
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)			**8.282**
Skin d to d1 Port	1.842		
Chain d to d1 Port	1.842		
d Port	0.000	0.000	
Skin d to d1 Starboard	1.850		
Chain d to d1 Starboard	1.850		
d Starboard	0.000	0.000	
Add d		0.000	
GIRTH MIDSHIP DIFFERENCES (2d)		**0.000**	
RATED LENGTH (Sum of Correct Length and Midship Girth Differences 2d)			**8.282**

(Calc. only nec. for boats after 1 Nov 1970)	Actual	Calc.
Mean Freeboard Bow O	0.827	0.827
Mean Freeboard Midship d	0.690	0.690
Mean Freeboard Stern O	0.657	0.657
Sum of Freeboards		2.174

Classic Immersion Marks d Freeboard (only for Classic Appendix A boats)	**n/a**		
Subtract F, ⅓ FREEBOARD (max 0.730)	0.724	**0.724**	**7.558**
Add Square root of TOTAL RATED SAIL AREA		**6.662**	
TOTAL OF MEASUREMENTS			**14.220**
Add any Tumblehome and/or Draught Penalty		0.000	**14.220**
RATING Calculation - Total of Measurements (max 14.222)/2.37 (= not more than 6.000)			**6.000**

PENALTIES

Overhang Forward to L (LWL)	1.493		
Overhang Aft to L (LWL)	1.892		
Subtract from overall length		3.385	
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)

WATERLINE LENGTH (LWL)		**7.064**
Minimum Displacement for Zero Penalty [m^3] $(0.2*LWL+0.15)^3$	3.811	
Minimum Weight for Zero Penalty [metric tons] (water of sg 1.025 tonne/m^3)	3.906	
DISPLACEMENT **WEIGHT [metric tons] (actual including added ballast)**		**3.919**
Equivalent LWL for Zero Penalty $((weight/1.025)\sqrt[3]{}-0.15)/0.2)$	7.065	
Difference	0.000	
DISPLACEMENT PENALTY (add 2x to L)		**0.000**
BEAM (minimum beam at ⅓ of midship freeboard)	1.830	
Actual beam at ⅓ of midship freeboard	1.830	
Difference (if positive)	0.000	
BEAM PENALTY (add 4x to L, only for yachts laid down after Sept 1937)		**0.000**
TUMBLEHOME (max 2x 2% of Extreme Beam)	0.082	
Extreme Beam	2.067	
Beam at deck	2.064	
Difference (if positive)	0.000	
TUMBLEHOME PENALTY (add 3x excess to Rating)		**0.000**
DRAUGHT (actual at deepest point) **keel, rudder or wing tips (span not to exceed 1830mm)**	1.624	
Maximum Draught for Zero Penalty (0.16*LWL+0.5)	1.630	
Difference (if positive)	0.000	
DRAUGHT PENALTY (add 3x excess to Rating)		**0.000**

SAIL PLAN

						(max 9.750m)
Maximum Height of Sail Plan (max 13.000m above da	13.000	J	3.422	I	9.720	
Boom Height (min 400 to 1100mm from datum)		A	12.400	B	4.880	
Foretraingle area (max (J or spin boom)xI/2)	16.630			Rated Mainsail Area (AxB/2)	**30.256**	
Rated Foretriangle Area (85% of measured area)	**14.135**			Total Rated Sail Area (S)	**44.391**	
				√S	**6.662**	

Spinnaker boom (length in extension to outer end from fwd face of the mast)	3.422	110% J	3.764

Sail Limits

Mainsail	Max girth at 1/2 height (MHW 67%)	**3.269**	Max girth at 3/4 height (MTW 39%)	**1.903**
Genoa	Max foot length (HFL J + 3.000m)	**6.422**		
Spinnaker	Max luff SLU/leech SLE length (80% of √J+√I +2.500m)	**10.743**	Max foot breadth (SFL 250% J)	**8.555**

SPARS MEASUREMENTS

MAST CG from datum point (90mm above sheer) _____ Mast Weight (min 63.51kg) _____ Material

(CG position min 4.940m above datum)

	Deck (min 132.7cm²)	1/2 Height (min 147.4cm²)	Forestay (min 95cm²)	Head (min 37.4cm²)	
MAST dimensions **[mm]**					Aluminium
MAST sectional area **[cm²]**					Builder & Yr
MAST section ratio **[max 1.35]**	#VALUE!	#VALUE!	#VALUE!	#VALUE!	Allspars 1990

DECK MEASUREMENTS

		Length	Aft width	Fwd width	Area m²	Distance to sheer
Cockpit dimensions:	fwd (or single) cockpit				0.000	
(max 2.700m² &	fwd keyhole				0.000	Total Area m²
sheer distance min 200mm)	aft keyhole				0.000	**0.000**
Hatch dimensions (max 0.400m² & sheer min 300mm)					**0.000**	Distance to sheer

NOTES & COMMENTS:

(include as many details as possible & all comments on measurements and/or conditions)
Eg.
Internal ballast 70kgs (10kg bags x7)
Boat was fitted with a new Ian Howlett designed keel at Demon Yachts, Aldeburgh, Suffolk UK, in May 2023
Target was to have the boat the same weight and floatatin on the original marks. This appears to have been achieved.
Mast and cocpit data unavailable to bring forward, but all complied when originally measured.