



INTERNATIONAL TWELVE METRE CLASS

Appendix E Measurement Certificate

12

Yacht's Name	Vanity V	National letters and Sail Number	K5
Designer	W. Fife	Builder	Fairlie
Owner	Partsrederi Vanity V c/- Patrick Howaldt		Year built
Owner's Address	Esplanaden 7.3.tv DK-1263 Copenhagen, Denmark		
Classification certificate (Number or Date)	Lloyds		
Club			

This yacht has been measured by approved measurer(s) and has been found to rate not more than 12.000 metres

This certificate is dated **12-Jul-14** **Barcelona** Valid until **11-Jul-16**

Measurer **McAlpine/Sironi** Measurer signature ITMA Technical Director

Supersedes **13-Jun-07**

PROVISIONAL CERTIFICATE REVALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated July 12, 2014.

Accordingly this certificate is revalidated and remains valid until March 30, 2020 subject to a successful flotation being carried out by a class measurer prior to racing.

Signature March 21, 2018
ITMA Technical Director

RATING CALCULATIONS

OVERALL LENGTH		21.572
Overhang Forward to L1	2.967	
Overhang Aft to L1	3.286	
Total Overhang (Subtract)	6.253	
MEASURED LENGTH (L1 L1)		15.319
Girth at Bow	1.655	
Twice vertical Height at Bow (Subtract)	1.200	
O at Bow	0.455	
Add 1 1/2 O at Bow (min 0.540 m)	0.683	
Girth at Stern	3.296	
Twice vertical Height at Stern (Subtract)	0.866	
O at Stern	1.564	
Add 1/3 O at Stern (min 0.400 m)	0.521	
Add any penalty (Displ.)	0.000	
Sum of length, girth correction and penalty	16.523	
Age and date allowance	1936	Allowance 0.958
CORRECT LENGTH L		15.829
Skin d to d1 Port	3.185	
Chain d to d1 Port	3.170	
d Port	0.015	
Skin d to d1 Starboard	3.186	
Chain d to d1 Starboard	3.170	
d Starboard	0.016	
Add d	0.031	
Add GIRTH 2 d		0.062
Mean Freeboard Bow O	Actual 1.301	1.301
Mean Freeboard Midship d	Actual 1.011	1.011
Mean Freeboard Stern O	Actual 1.046	1.046
Sum of Freeboards		3.358
Subtract FREEBOARD, F		1.119
Add SAIL AREAS (Square root)		13.669
TOTAL OF MEASUREMENTS		28.441
PENALTY (Draught)	0.000	
		12.000

PENALTIES

Overhang Forward to L	3.554
Overhang Aft to L	3.938
Subtract from overall length	7.492

WATERLINE LENGTH

Minimum Displacement for Zero Penalty [m3]	26.092	14.080
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	26.745	

DISPLACEMENT *(by weighing)*

Equivalent LWL (for Displ. < min.)		26.800
DISPLACEMENT PENALTY (add to L)		0.000

DRAUGHT (actual)

Max. Draught for Zero Penalty	2.701	
Difference (if positive)	2.753	
DRAUGHT PENALTY (add to Rating)		0.000

BEAM (Min)

Max Beam at 1/3 of Midship Freeboard	3.600	
Difference (if positive)	3.721	
BEAM PENALTY (add to L)		0.000
Tumblehome Max. (2 x 2% of Extr. Beam)	0.149	
Extreme Beam	3.721	
Beam at deck	3.600	
Difference (if positive)		
TUMBLEHOME PENALTY (add to Rating)		0.000

SAIL PLAN

Height of Sail Plan	25.000	J=	6.180	A=	23.910	I =	18.300
Spi pole	7.270	Boom Height	1.090	B=	10.900		
Rated Mainsail Area	130.310	Rated Foretriangle Area=	56.542	TOTAL RATED SAIL AREA =	186.852		
Propeller allowance	0.975	Corrected sail area	182.181	S=	13.669		

SAIL LIMITS

max girth at 1/2 height (68%)	7.548	Genoa max. foot length (J + 4.8m)	10.980
max girth at 3/4 height (41%)	4.551	Spinnaker max. luff length [m]	18.500
		1/2 foot max width (125% J) [m]	9.125

SPARS MEASUREMENTS



MAST (material)	Wood	Mast Weight [kg]	0	Mast CG position (from meas. point)	0.000
Mast dimensions	Deck 300x265	Half-Height	300x265	Jib-Halyard	Head 224x250 131x139

Flotation

Water salinity	1.025	Difference of immersion [m] from standard salt water [1.025 kg/dm3]	0.000
Internal Ballast [kg]	250kg	Loc. from bow [m]	7.900

Measurer's Notes

- 1- Measured according to the 1934 rule
- 2- Age allowance take into account a bermudian rig

Date of Measurement	12-Jul-14	Measurer's Name(s)	McAlpine/Sironi
Place of Measurement	Barcelona		
Measurer's signature		Technical Director endorsement	
Certificate Revalidated	March 31 2018	Certificate Valid Until	March 30, 2020