

12



INTERNATIONAL TWELVE METRE CLASS

Yacht's Name VIM

National letters and Sail Number US 15 Club Royal Danish Yacht Club

Designer O.J. Stephens

Builder H.B.Nevin Inc (USA) Building Year 1939

Owner Patrick Howaldt


Owner's Address Dronninggaards Alle41 DK 2840 Holte, Denmark

Lloyds R class certificate (Number or Date) _____

APPENDIX E RATING CERTIFICATE


This yacht has been measured by measurer(s) appointed by the International Twelve Metre Association and has been found to rate not more than 12.000 metres.


This certificate is dated 8-Feb-19

Measurer K-E Brink Signature 

Valid until 8-Feb-21

Supersedes 19-Apr-18

Signature  ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association

CERTIFICATE REVALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated 8 February 2019. Accordingly this certificate has been revalidated and remains valid until 30 June 2023 subject to a successful flotation being carried out by a class measurer prior to racing .

Signature  June 28 2021

ITMA Technical Director

RATING CALCULATION

OVERALL LENGTH

Overhang Forward to FGS
 Overhang Aft to AGS
 Total Overhang (Subtract)

2.760
3.168
5.928

21.343

MEASURED LENGTH (LBG)

Girth at Bow
 Twice vertical Height at Bow (Subtract)
 Girth Difference at FGS
 Add 1.5 x Girth Difference at FGS (min 0.540 m)
 Girth at Stern
 Twice vertical Height at Stern (Subtract)
 Girth Difference at AGS
 Add 1/3 Girth Difference at AGS (min 0.400 m)
 Add any penalty (Beam or Displacement)
 Sum of Length and Girth Corrections
 Age/Design Correction Factor (ADCF)(see page 3)

1.598
1.200
0.398
0.597
3.221
1.672
1.549
0.516
0.000

15.415

16.528

0.9800

LENGTH (L)

Skin IM to d1 Port
 Chain IM to d1 Port
 d Port
 Skin IM to d1 Starboard
 Chain IM to d1 Starboard
 d Starboard
 Add d

3.257
3.222
0.035
3.249
3.214
0.035
0.070

16.198

Add GIRTH 2 d

0.140

Mean Freeboard Bow
 Mean Freeboard Midship
 Mean Freeboard Stern
 Sum of Freeboards

Datum Sta.	Actual Sta.	Rating FB
	1.432	1.432
	1.126	1.126
	1.031	1.031
		3.589

Subtract FREEBOARD, F

1.196

Add SAIL AREAS (Square root)

13.298

TOTAL OF MEASUREMENTS

28.440

PENALTY (Draft or Tumblehome)

Append E

0

RATING

12.000

Date and Place of Measurement	8-Feb-19		
Measurer's Name(s)	K-E Brink	Signature	
Certificate Revalidated	30-Jun-21	Certificate valid until	29-Jun-23

Yacht's name : VIM		Date 8-Feb-19	
Range Measurement (Yes or No)	Yes	Date:	April 2017

PENALTIES

Overhang Forward to MWL		3.377		
Overhang Aft to MWL		4.051		
Subtract from overall length		7.428		
Difference of immersion from salt to fresh water	Meas. Density			0.000
WATERLINE LENGTH (LWL)				13.915
Minimum Displacement for Zero Penalty [m3]		25.231		
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)		25.862		
WEIGHT [tonne] Actual weight				Append E
Equivalent LWL (for Displ. < min.)		13.990		
Difference		-0.075		
DISPLACEMENT PENALTY (add to L)				Append E
Displacement Determination Method		Hull Scan		
DRAFT (actual)		2.745		
Max. Draft for Zero Penalty		2.726		
Difference (if positive)		0.019		
DRAFT PENALTY (add to Rating)				Append E
BEAM (Min)		3.600		
Max Beam at 1/3 of Midship Freeboard		3.600		
Difference (if positive)		0.000		
BEAM PENALTY (add to L)				0.000
Tumblehome Max. (2 x 2% of Extr. Beam)		0.144		
Extreme Beam		3.617		
Beam at deck		3.521		
Difference (if positive)		0.096		
TUMBLEHOME PENALTY (add to Rating)				0.000

Date and Place of Measurement	8-Feb-19		
Measurer's Name(s)	K-E Brink	Signature	
Certificate revalidated	30-Jun-21	Certificate valid until	30-Jun-23

Design/Age Correction Factor Calculation			
Age Date	1939		
ADCF (Table E-2)	0.9600	ADCF of 0.98 used at Owner's request	
Hull Alteration Scope and Date			Nil
Appendage Change Scope and Date			Nil
Change/Alteration Correction ADCF			
Accommodation Deficiency Ballast	55 kgs		

Yacht's name : VIM

Date

8-Feb-19

Sail Plan

Max Height of Sail Plan =	24.951	J=	6.905	I =	18.707
Boom above Mast Datum =	1.451	P=	23.500	E=	10.030
Rated Mainsail Area J used for Rating	117.853	Spi boom=	7.420	\sqrt{S} =	13.298
			7.420		
Rated Foretriangle Area	58.993	Propeller allowance			1.000
TOTAL RATED SAIL AREA (S)	176.845	Corrected sail area			176.845

SAIL LIMITS

Mainsail max girth:	1/2 height (68% of E)	6.820	3/4 height (41% of E)	4.112
Genoa:	max. foot length (J + 4.8m)	11.705		
Spinnaker:	1/2 foot max breadth (125% J)	9.275	max. luff length=	18.600

Spar Measurement

MAST (material)	Aluminium	Mast Weight	513	CG pos.	9.549
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	301*245	339*244	338*244	201*137	
Sections area [cm ²]	579	649	647	216	
Mast CG Correction (if applicable) Wt & CG	@		Mk ²		

Engine/Propeller Installation


Engine and propeller weight	>300 kgs	Propeller diameter =	0.460
Minimum boat speed with engine	>7 kn	Propeller position =	Exposed
Propeller Type (folding feathering fixed pitch etc.), no of blades			
Propeller Skew			< 20 ⁰

Flotation

Internal Ballast	Amount	Location from Bow
Nil		
Flotation measured on April 9, 2018 in Flensburg. Specific seawater gravity of water 1.013t/m3		
Accommodation Deficiency		
Fwd	27.5 kg	@ Fwd L1
	27.5 kg	@ Aft L1

Measurer's Notes

- 1 Freeboard in Rating as per 1933-1970 Rule (Sum/3, Max 1.21m)
- 2 Displacment volume determined by 3D scan
- 3 No propeller allowance applied due to removal of shaft, bracket and propeller

Date and Place of Measurement	8-Feb-19	Flensburg		
Measurer's Name(s)	K-E Brink	Signature		
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