

# 12



## INTERNATIONAL TWELVE METRE CLASS

**Yacht's Name** VEMA III

**National letters and Sail Number** N-11 **Club** Kongelig Norsk Seilforening

**Designer** Johan Anker

**Builder** Anker & Jensen **Building Year** 1933

**Owner** Vema III AS c/- Johan Tro


**Owner's Address** Museumsveien 4A  
0287 OSLO  
NORWAY

**Lloyds R class certificate (Number or Date)** \_\_\_\_\_

### 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-Apr-19


Measurer Kay-Enno Brink Signature 


Valid until 8-Apr-21

Supersedes 30-May-01

Is this an **Appendix E** Certificate? Y / N  Y

Was **Appendix F** used for Measurement? Y / N  N

Signature  \_\_\_\_\_  
ITMA Technical Director

  
Stamp of Authority of the  
International Twelve Metre Association

# RATING CALCULATION

**OVERALL LENGTH** **21.272**

Overhang Forward to FGS	2.602	
Overhang Aft to AGS	3.236	
Total Overhang (Subtract)	5.838	

**MEASURED LENGTH (LBG)** **15.434**

Girth at Bow	1.618	
Twice vertical Height at Bow (Subtract)	1.200	
Girth Difference at FGS	0.418	
Add 1.5 Girth Difference at FGS (min 0.540 m)	<b>0.627</b>	
Girth at Stern	3.136	
Twice vertical Height at Stern (Subtract)	1.591	
Girth Difference at AGS	1.545	
Add 1/3 Girth Difference at AGS (min 0.400 m)	<b>0.515</b>	
Add any penalty (Beam or Displacement)	<b>0.000</b>	

Sum of Length and Girth Corrections **16.576**

Age/Date Correction Factor (ADCF)(see page 3) 0.9568

**LENGTH (L)** **15.860**

Skin IM to d1 Port	2.061	
Chain IM to d1 Port	2.054	
d Port	0.007	
Skin IM to d1 Starboard	2.060	
Chain IM to d1 Starboard	2.055	
d Starboard	0.005	
Add d	0.012	

**Add GIRTH 2 d** **0.024**

Datum Sta.	Actual Sta.	Rating FB
	1.453	1.453
	1.001	1.001
	0.976	0.976
		3.430

Sum of Freeboards **1.143**

**Subtract FREEBOARD, F** **13.192**

**Add SAIL AREAS (Square root)** **27.933**

**TOTAL OF MEASUREMENTS** **27.933**

PENALTY (Draft or Tumblehome) 0.000

**RATING** **11.786**

Date and Place of Measurement	22-March-2019, Orust	
Measurer's Name(s)	Kay-Enno Brink	Signature

<b>Yacht's name : VEMA III</b>		<b>Date</b>	<b>8-Apr-19</b>
Range Measurement (Yes or No)	N	Date:	8-Apr-19

## PENALTIES

Overhang Forward to <b>MWL</b>	3.106	
Overhang Aft to <b>MWL</b>	3.851	
Subtract from overall length	6.957	
Difference of immersion from salt to fresh water	Meas. Density	
<b>WATERLINE LENGTH (LWL)</b>		<b>14.315</b>
Minimum Displacement for Zero Penalty [m3]	27.353	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	28.036	
<b>WEIGHT [tonne]</b> Actual weight		<b>30.886</b>
Equivalent LWL (for Displ. < min.)	14.938	
Difference	0.623	
<b>DISPLACEMENT PENALTY (add to L)</b>		<b>0.000</b>
Displacement Determination Method	3D-Scan	
<b>DRAFT (actual)</b>	2.817	
Max. Draft for Zero Penalty	2.790	
Difference (if positive)	0.027	
<b>DRAFT PENALTY (add to Rating)</b>	Append E	<b>0.000</b>
<b>BEAM (Min)</b>	3.600	
Max Beam at 1/3 of Midship Freeboard	3.561	
Difference (if positive)	0.039	
<b>BEAM PENALTY (add to L)</b>	Append E	<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.143	
Extreme Beam	3.565	
Beam at deck	3.555	
Difference (if positive)	0.010	
<b>TUMBLEHOME PENALTY (add to Rating)</b>		<b>0.000</b>

Date and Place of Measurement	22-March-2019, Orust	
Measurer's Name(s)	Kay-Enno Brink	Signature

Design/Age Correction Factor Calculation		
Age Date	1933	
ADCF ( Table E-2)	0.9568	
Hull Alteration Scope and Date		
Appendage Change Scope and Date		
Change/Alteration Correction ADCF		
Accommodation Deficiency Ballast	none	

**SAIL PLAN**

Max Height of Sail Plan =	<input type="text" value="24.930"/>	J=	<input type="text" value="6.050"/>	I =	<input type="text" value="18.750"/>
Boom above Mast Datum =	<input type="text" value="1.110"/>	P=	<input type="text" value="23.820"/>	E=	<input type="text" value="10.740"/>
Rated Mainsail Area	<input type="text" value="127.913"/>	Spi boom=	<input type="text" value="6.120"/>	√S=	<input type="text" value="13.192"/>
J used for Rating	<input type="text" value="6.120"/>				
Rated Foretriangle Area	<input type="text" value="48.769"/>	Propeller allowance		<input type="text" value="0.985"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="176.682"/>	Corrected sail area		<input type="text" value="174.032"/>	

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="7.303"/>	3/4 height (41% of E)	<input type="text" value="4.403"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="10.850"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="7.650"/>	max. luff length=	<input type="text" value="18.279"/>

**Spar Measurement**

MAST (material)	<input type="text" value="wood"/>	Mast Weight	<input type="text"/>	CG pos.	<input type="text"/>
Mast dimensions [mm]	Deck <input type="text" value="299*223"/>	Half-Height <input type="text" value="337*323"/>	Jib-Halyard <input type="text" value="290*205"/>	Head <input type="text" value="185*125"/>	
Sections area [cm <sup>2</sup> ]	<input type="text" value="523"/>	<input type="text" value="854"/>	<input type="text" value="467"/>	<input type="text" value="182"/>	
Mast CG Correction (if applicable) Wt & CG	<input type="text"/>		Mk <sup>2</sup>	<input type="text"/>	

**Engine/Propeller Installation**

Engine and propeller weight	<input type="text" value="285 kg"/>	Propeller diameter =	<input type="text" value="0.533"/>
Minimum boat speed with engine	<input "&gt;="" 8="" kn"="" type="text" value=""/>	Propeller position =	<input type="text" value="on centreline"/>
Propeller Type (folding feathering fixed pitch etc.), no of blades		<input type="text" value="feathering"/>	<input type="text" value="2"/>
Propeller Skew			<input type="text" value="0.000"/>

**Flotation**


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**Measurer's Notes**

- 1 No beam penalty as minimum beam restriction was not introduced until 1937
  - 2 Rated freeboard is one third of the sum of the mean freeboards as per 1933 rule
  - 3 No minimum boom height restriction in 1933 rule
  - 4 No draft penalty for Appendix E certificate
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Date and Place of Measurement

22-March-2019, Orust

Measurer's Name(s)

Kay-Enno Brink

