

# 12



## INTERNATIONAL TWELVE METRE CLASS

Yacht's Name *Nefertiti*

National letters and Sail Number *US 19* Club *New York Yacht Club*

Designer *Frederick E Hood*

Builder *James E Graves Inc.* Building Year *1962*

Owner *Jack Klinck*

Owner's Address *P.O. Box 305 Newport RI 02840 USA*

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 17-July-2021

Measurer A Williams

Signature *Ander*

Valid until July 17, 2023

Supersedes 29-November-2020

Signature *K. Hill*  
ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association

# RATING CALCULATION

<b>OVERALL LENGTH</b>		<b>20.546</b>
Overhang Forward to L1	2.395	
Overhang Aft to L1	2.657	
Total Overhang (Subtract)	5.052	
<b>MEASURED LENGTH (L1 L1)</b>		<b>15.494</b>
Girth at Bow	1.562	
Twice vertical Height at Bow (Subtract)	1.200	
O at Bow	0.362	
Add 1 1/2 O at Bow (min 0.540 m)	<b>0.543</b>	
Girth at Stern	3.997	
Twice vertical Height at Stern (Subtract)	1.796	
O at Stern	2.201	
Add 1/3 O at Stern (min 0.400 m)	<b>0.734</b>	
Add any penalty (Beam)	<b>0.000</b>	
Sum of Length and Girth Corrections		<b>16.771</b>
Age Date and Allowance	1962	Allowance 0.967
<b>CORRECT LENGTH L</b>		<b>16.217</b>
Skin d to d1 Port	2.225	
Chain d to d1 Port	2.160	
d Port	0.065	
Skin d to d1 Starboard	2.225	
Chain d to d1 Starboard	2.158	
d Starboard	0.067	
Add d	0.132	
<b>Add GIRTH 2 d</b>		<b>0.264</b>
Mean Freeboard Bow O	Actual	1.518
Mean Freeboard Midship d	Actual	1.139
Mean Freeboard Stern O	Actual	1.078
Sum of Freeboards		3.735
<b>Subtract FREEBOARD, F</b>		See Notes
<b>Add SAIL AREAS (Square root)</b>		<b>1.210</b>
<b>TOTAL OF MEASUREMENTS</b>		<b>13.168</b>
<b>PENALTY (Draught )</b>		<b>28.439</b>
		0.000
<b>RATING</b>		<b>12.000</b>

Date and place of Measurement

17-Jul-21

Measurer's Name(s)

A Williams

Signature



**PENALTIES**

Overhang Forward to L	2.977
Overhang Aft to L	3.457
Subtract from overall length	6.434
Difference of imersion from salt to fresh water	0.000

**WATERLINE LENGTH**

		<b>14.112</b>
Minimum Displacement for Zero Penalty [m3]	26.262	
Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025)	26.919	

**ACTUAL WEIGHT [tonnes]**

		<b>27.296</b>
Equivalent LWL (for Displ. < min.)	14.181	
Difference		
DISPLACEMENT PENALTY (add to L)	Hull Scan Volume 26.63m <sup>3</sup>	<b>0.000</b>

**DRAUGHT (actual)**

	2.771	
Max. Draught for Zero Penalty	2.758	
Difference (if positive)	0.013	
DRAUGHT PENALTY (add to Rating)	Appendix E	<b>0.039</b>

**BEAM (Min)**

	3.645	
Max Beam at 1/3 of Midship Freeboard	3.600	
Difference (if positive)	0.045	
BEAM PENALTY (add to L)		<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.000	
Extreme Beam	3.720	
Beam at deck	3.720	
Difference (if positive)	0.000	
TUMBLEHOME PENALTY (add to Rating)		<b>0.000</b>

Date and place of Measurement

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Signature



**SAIL PLAN**

Max Height of Sail Plan =	25.000	J=	7.985	I =	18.742
Boom Height =	1.400	A=	23.600	B=	9.430
Rated Mainsail Area	111.274	Spi boom=	8.130	eS=	13.168
Rated Foretriangle Area	64.758	Propeller allowance			0.985
TOTAL RATED SAIL AREA	176.032	Corrected sail area			173.392

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68%)	6.412	3/4 height (41%)	3.866
Genoa:	max. foot length (J + 4.8m)	12.785		
Spinnaker:	1/2 foot max breadth (125% J)	10.163	max. luff length=	18.844

**Spar Measurement**

MAST (material)	Aluminium	Mast Weight	455	CG pos.	9.520
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	351x246	350x246	282x204	168x126	
Sections area [cm <sup>2</sup> ]	678	676	452	166	

**Engine/Propeller Installation**

Engine and propeller weight	Yes	Propeller diameter =	0.490
Minimum boat speed with engine	Yes	Propeller position =	Not Skewed
Engine model and power	Yes		

**Flotation**

Internal Ballast Nil

**Measurer's Notes**

- 1 Freeboard in Rating as per 1933-1970 Rule (Sum/3,Max 1.21)
- 2 New Mast 2003
- 2 Re-measured and scanned 2019
- 4 Mast moved forward 115mm 2021

Date and place of Measurement

17-Jul-21

Measurer's Name(s)

A Williams

Signature

