



# 12

## INTERNATIONAL TWELVE METRE CLASS

Yacht's Name Valiant

National letters and Sail Number US 24 Club New York Yacht Club

Designer Sparkman & Stephens

Builder Derecor Building Year 1970

Owner Gary Gregory

Owner's Address 19 Mill Pond Marblehead MA, 01945 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 21-July-2013

Measurer A Williams

Valid until 21-July-2015

Supersedes 19-June-2001

Signature Ander

Signature [Handwritten Signature]  
ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association


### PROVISIONAL CERTIFICATE VALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated July 21, 2013. Accordingly this certificate has been revalidated and remains valid until April 14, 2020 subject to a successful flotation being carried out by a class measurer prior to racing.

Signature [Handwritten Signature] March 21, 2018  
ITMA Technical Director

## RATING CALCULATION

<b>OVERALL LENGTH</b>			<b>19.522</b>
Overhang Forward to L1		2.192	
Overhang Aft to L1		1.100	
Total Overhang (Subtract)		3.292	
<b>MEASURED LENGTH (L1 L1)</b>			<b>16.230</b>
Girth at Bow		1.570	
Twice vertical Height at Bow (Subtract)		1.200	
O at Bow		0.370	
Add 1 1/2 O at Bow (min 0.540 m)		<b>0.555</b>	
Girth at Stern		2.994	
Twice vertical Height at Stern (Subtract)		1.818	
O at Stern		1.176	
Add 1/3 O at Stern (min 0.400 m)		<b>0.400</b>	
Add any penalty (Beam)		<b>0.000</b>	
Sum of Length and Girth Corrections			<b>17.185</b>
Age Date and Allowance	1977	Allowance 0.9860	
<b>CORRECT LENGTH L</b>			<b>16.944</b>
Skin IM to d1 Port		3.240	
Chain IM to d1 Port		3.240	
d Port		0.000	
Skin IM to d1 Starboard		3.249	
Chain IM to d1 Starboard		3.249	
d Starboard		0.000	
Add d		0.000	
<b>Add GIRTH 2 d</b>			<b>0.000</b>
Mean Freeboard Bow O	Actual	1.420	1.420
Mean Freeboard Midship d	Actual	1.142	1.142
Mean Freeboard Stern O	Actual	1.090	1.090
Sum of Freeboards		<b>3.652</b>	
<b>Subtract FREEBOARD, F</b>		See Notes	<b>1.210</b>
<b>Add SAIL AREAS (Square root)</b>			<b>12.705</b>
<b>TOTAL OF MEASUREMENTS</b>			<b>28.439</b>
<b>PENALTY (Draught )</b>		0.000	
<b>RATING</b>			<b>12.000</b>

Date and place of Measurement	21-Jul-13		
Measurer's Name(s)	A Williams	Signature	
Provisional Certificate Revalidated	April 15, 2018	Certificate valid until	April 14, 2020

**PENALTIES**

Overhang Forward to L	2.856
Overhang Aft to L	1.634
Subtract from overall length	4.490
Difference of imersion from salt to fresh water	0.000

**WATERLINE LENGTH**

Minimum Displacement for Zero Penalty [m3]	31.447	<b>15.032</b>
Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025)	<b>32.233</b>	

**ACTUAL WEIGHT [tonnes]**

Equivalent LWL (for Displ. < min.)	15.065	<b>32.436</b>
Difference	<b>-0.033</b>	
DISPLACEMENT PENALTY (add to L)		<b>0.000</b>

**DRAUGHT (actual)**

Max. Draught for Zero Penalty	2.905	<b>2.905</b>
Difference (if positive)		
DRAUGHT PENALTY (add to Rating)		<b>0.000</b>

**BEAM (Min)**

Max Beam at 1/3 of Midship Freeboard	3.780	<b>3.600</b>
Difference (if positive)	0.180	
BEAM PENALTY (add to L)		<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.000	
Extreme Beam		
Beam at deck		
Difference (if positive)	0.000	<b>0.000</b>
TUMBLEHOME PENALTY (add to Rating)		

Date and place of Measurement

21-Jul-13

Measurer's Name(s)

A Williams

Signature



Provisional Certificate Revalidated

April 15, 2018

Certificate valid until

April 14, 2020

**SAIL PLAN**

Max Height of Sail Plan =	25.000	J=	7.254	I =	18.750
Boom Height =	1.545	A=	23.455	B=	8.660
Rated Mainsail Area	101.560	Spi boom=	7.820	/~	12.705
Rated Foretriangle Area	62.316	Propeller allowance			0.985
TOTAL RATED SAIL AREA	163.876	Corrected sail area			161.418

**SAIL LIMITS**

Mainsail max girth:	1/2 height (68%)	5.889	3/4 height (41%)	3.551
Genoa:	max. foot length (J + 4.8m)	12.054		
Spinnaker:	1/2 foot max breadth (125% J)	9.775	max. luff length=	18.752

**Spar Measurement**

MAST (material)	Aluminium	Mast Weight	472	CG pos.	9.998
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	0.000	0.000	0.000	0.000	
Sections area [cm <sup>2</sup> ]	0	0	0	0	

**Engine/Propeller Installation**

Engine and propeller weight		Propeller diameter =	0.533
Minimum boat speed with engine	Yes	Propeller position =	Not Skewed
Engine model and power	Yes		

**Flotation**

Internal Ballast		
1 Lead Blocks 100.5 kg	13m	From Bow
2 Anchor Fx 55		At mast
3 Anchor Rode	1m	Aft of Mast
4 Tanks empty		

**Measurer's Notes**

1	Freeboard in Rating as per 1933-1970 Rule (Sum/3,Max 1.21)
2	Boat weight 32436 kgs
3	Note Overlength Spinnaker Pole

Date and place of Measurement	21-Jul-13	Signature	
Measurer's Name(s)	A Williams	Certificate valid until	April 14, 2020
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