

# 12

## INTERNATIONAL TWELVE METRE CLASS

Yacht's Name Weatherly

National letters and Sail Number USA 17 Club \_\_\_\_\_

Designer Rhodes

Builder Luders Building Year 1958

Owner Mr George Hill

Owner's Address Johns Street, Newport RI USA

Lloyds R class certificate (Number or Date) Lloyds

### 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 **August 2, 2017**

Measurer **A Williams**

Signature

*A Williams*

Valid until **August 2, 2019**

Supersedes **July 31, 2015**

Signature

*K. Hill*

ITMA Technical Director



Stamp of Authority of the  
International Twelve Metre Association

# RATING CALCULATION

<b>OVERALL LENGTH</b>			<b>20.998</b>
Overhang Forward to L1		2.665	
Overhang Aft to L1		2.690	
Total Overhang (Subtract)		5.355	
<b>MEASURED LENGTH (L1 L1)</b>			<b>15.643</b>
Girth at Bow		1.586	
Twice vertical Height at Bow (Subtract)		1.200	
O at Bow		0.386	
Add 1 1/2 O at Bow (min 0.540 m)		<b>0.579</b>	
Girth at Stern		3.145	
Twice vertical Height at Stern (Subtract)		2.020	
O at Stern		1.125	
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>16.622</b>
Age Date and Allowance	1958	Allowance	0.965
<b>CORRECT LENGTH L</b>			<b>16.040</b>
Skin d to d1 Port		2.142	
Chain d to d1 Port		2.120	
d Port		0.022	
Skin d to d1 Starboard		2.153	
Chain d to d1 Starboard		2.131	
d Starboard		0.022	
Add d		0.044	
<b>Add GIRTH 2 d</b>			<b>0.088</b>
Mean Freeboard Bow O	Actual	1.370	1.370
Mean Freeboard Midship d	Actual	1.072	1.072
Mean Freeboard Stern O	Actual	1.190	1.190
Sum of Freeboards			3.632
<b>Subtract FREEBOARD, F</b>			<b>1.210</b>
<b>Add SAIL AREAS (Square root)</b>			<b>13.326</b>
<b>TOTAL OF MEASUREMENTS</b>			<b>28.244</b>
PENALTY (Tumblehome )		0.009	
<b>RATING</b>			<b>11.926</b>

Date and place of Measurement

August 2, 2017

Measurer's Name(s)

A Williams

Signature



# PENALTIES

Overhang Forward to L	3.173	
Overhang Aft to L	3.454	
Subtract from overall length	6.627	
Difference of imersion from salt to fresh water		

**WATERLINE LENGTH**

Minimum Displacement for Zero Penalty [m3]	27.659	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	28.350	<b>14.371</b>

**WEIGHT [ton]** Additional weight

Equivalent LWL (for Displ. < min.)	0.000	
Difference	0.000	
DISPLACEMENT PENALTY (add to L)	Appendix E	<b>0.000</b>

**DRAUGHT (actual)**

Max. Draught for Zero Penalty	2.835	
Difference (if positive)	2.799	
DRAUGHT PENALTY (add to Rating)	0.036	<b>0.000</b>

**BEAM (Min)**

Max Beam at 1/3 of Midship Freeboard	3.610	
Difference (if positive)	0.000	
BEAM PENALTY (add to L)		<b>0.000</b>
Tumblehome Max. (2 x 2% of Extr. Beam)	0.151	
Extreme Beam	3.764	
Beam at deck	3.610	
Difference (if positive)	0.003	
TUMBLEHOME PENALTY (add to Rating)		<b>0.009</b>

Date and place of Measurement	<b>August 2, 2017</b>	
Measurer's Name(s)	<b>A Williams</b>	Signature <i>Ander</i>

## SAIL PLAN

Max Height of Sail Plan =	25.000	J=	7.010	I =	18.748
Boom Height =	1.585	A=	23.415	B=	10.400
Rated Mainsail Area	121.758	Spi boom=	7.344	√S=	13.326
Rated Foretriangle Area	58.516	Propeller allowance	0.985		
<b>TOTAL RATED SAIL AREA</b>	<b>180.274</b>	Corrected sail area	<b>177.570</b>		

### SAIL LIMITS

Mainsail max girth:	1/2 height (68%)	7.072	3/4 height (41%)	4.264
Genoa:	max. foot length (J + 4.8m)	11.810		
Spinnaker:	1/2 foot max breadth (125% J)	9.180	max. luff length=	18.608

## Spar Measurement

MAST (material)	Aluminium	Mast Weight	577	CG pos.	10.490
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	355*240	355*240	284*207	175*130	
Sections area [cm <sup>2</sup> ]	669	669	461	179	

## Engine/Propeller Installation

Engine and propeller weight	yes	Propeller diameter =	0.620	
Minimum boat speed with engine	yes	Propeller position =	Not Skewed	
Engine model and power	yes			

## Flotation

Internal Ballast	
4 pigs	42 kgs @ 1 m aft of bow
8 pigs	110 kg @ 8 m aft of bow

## Measurer's Notes

2011 Engine moved aft