



12

INTERNATIONAL TWELVE METRE CLASS

Yacht's Name EASTERNER

National letters and Sail Number US 18 Club New York Yacht Club

Designer C Ray Hunt

Builder James Graves Building Year 1958

Owner Paul Callahan

Owner's Address P.O. Box 1264 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 23-Jul-09

Measurer A Williams

Valid until 23-Jul-11

Supersedes 7-Jul-03

Signature *Ander*



Signature *Richard Alpinio*
ITMA Technical Director

Stamp of Authority of the
International Twelve Metre Association

RATING CALCULATION

OVERALL LENGTH				20.011
Overhang Forward to L1			2.283	
Overhang Aft to L1			1.824	
Total Overhang (Subtract)			4.107	
MEASURED LENGTH (L1 L1)				15.904
Girth at Bow			1.416	
Twice vertical Height at Bow (Subtract)			1.200	
O at Bow			0.216	
Add 1 1/2 O at Bow (min 0.540 m)			0.540	
Girth at Stern			2.854	
Twice vertical Height at Stern (Subtract)			1.690	
O at Stern			1.164	
Add 1/3 O at Stern (min 0.400 m)			0.400	
Add any penalty (Beam)			0.000	
Sum of Length and Girth Corrections				16.844
Age Date and Allowance	1958	Allowance	0.965	
CORRECT LENGTH L				16.254
Skin d to d1 Port			3.144	
Chain d to d1 Port			3.136	
d Port			0.008	
Skin d to d1 Starboard			3.137	
Chain d to d1 Starboard			3.130	
d Starboard			0.007	
Add d			0.015	
Add GIRTH 2 d				0.030
Mean Freeboard Bow O		Actual	1.406	1.406
Mean Freeboard Midship d		Actual	1.016	1.016
Mean Freeboard Stern O		Actual	1.025	1.025
Sum of Freeboards				3.447
Subtract FREEBOARD, F				1.149
Add SAIL AREAS (Square root)				13.302
TOTAL OF MEASUREMENTS				28.438
<i>PENALTY (Draught)</i>			0.000	
RATING				11.999

Date and place of Measurement

23-Jul-09

Measurer's Name(s)

A Williams

Signature



PENALTIES

Overhang Forward to L	2.759
Overhang Aft to L	2.385
Subtract from overall length	5.144
Difference of immersion from salt to fresh water	

WATERLINE LENGTH

Minimum Displacement for Zero Penalty [m ³]	30.471	14.867
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	31.232	

WEIGHT [ton] Additional weight

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

DRAUGHT (actual)

Max. Draught for Zero Penalty	2.867	
Difference (if positive)	2.879	
DRAUGHT PENALTY (add to Rating)		0.000

BEAM (Min)

Max Beam at 1/3 of Midship Freeboard	3.602	
Difference (if positive)	0.000	
BEAM PENALTY (add to L)	0.000	0.000
Tumblehome Max. (2 x 2% of Extr. Beam)	0.148	
Extreme Beam	3.700	
Beam at deck	3.689	
Difference (if positive)	0.011	
TUMBLEHOME PENALTY (add to Rating)		0.000

Date and place of Measurement

23-Jul-09

Measurer's Name(s)

A Williams

Signature



SAIL PLAN

Max Height of Sail Plan =	<input type="text" value="25.000"/>	J=	<input type="text" value="7.165"/>	I =	<input type="text" value="18.750"/>
Boom Height =	<input type="text" value="1.550"/>	A=	<input type="text" value="23.450"/>	B=	<input type="text" value="10.300"/>
Rated Mainsail Area	<input type="text" value="120.768"/>	Spi boom=	<input type="text" value="7.620"/>	√S=	<input type="text" value="13.302"/>
Rated Foretriangle Area	<input type="text" value="60.722"/>	Propeller allowance	<input type="text" value="0.975"/>		
TOTAL RATED SAIL AREA	<input type="text" value="181.489"/>	Corrected sail area	<input type="text" value="176.952"/>		

SAIL LIMITS

Mainsail max girth:	1/2 height (68%)	<input type="text" value="7.004"/>	3/4 height (41%)	<input type="text" value="4.223"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="11.965"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="9.525"/>	max. luff length=	<input type="text" value="18.691"/>

Spar Measurement

MAST (material)	<input type="text" value="Aluminium"/>	Mast Weight	<input type="text" value="455"/>	CG pos.	<input type="text" value="9.505"/>
Mast dimensions [mm]	Deck	Half-Height	Jib-Halyard	Head	
	<input type="text" value="340*249"/>	<input type="text" value="340*249"/>	<input type="text" value="272*210"/>	<input type="text" value="172*132"/>	
Sections area [cm ²]	<input type="text" value="665"/>	<input type="text" value="665"/>	<input type="text" value="448"/>	<input type="text" value="178"/>	

Engine/Propeller Installation

Engine and propeller weight	<input type="text"/>	Propeller diameter =	<input type="text" value="0.440"/>
Minimum boat speed with engine	<input type="text" value="yes"/>	Propeller position =	<input type="text" value="Skewed"/>
Engine model and power	<input type="text" value="Yanmar 75 hp"/>		

Flotation

Internal Ballast	<input type="text" value="Nil"/>

Measurer's Notes

1	Yacht not weighed
2	

Date and place of Measurement	<input type="text" value="23-Jul-09"/>	Signature	
Measurer's Name(s)	<input type="text" value="A Williams"/>	Signature	