

12

INTERNATIONAL TWELVE METRE CLASS

Yacht's Name

Easterner

National letters and Sail Number

USA 18

Club Severn Sailing Association

Designer

C Ray Hunt

Builder

James Graves

Building Year

1958

Owner

Dr. Scott A. Bernard

Owner's Address

1609 Depriest Drive
Shady Side, MD 20764 USA

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:

May 12, 2023

Measurer

A Williams

Signature

Ander

Valid until

May 12, 2025

Supersedes

June 1, 2009

Is this an **Appendix E** Certificate?

Y / N

Y

Was **Appendix F** used for Measurement?

Y / N

N

Signature

K. Hill

ITMA Technical Director



Stamp of Authority of the
International Twelve Metre Association

RATING CALCULATION

OVERALL LENGTH		20.011															
Overhang Forward to FGS	2.160																
Overhang Aft to AGS	1.941																
Total Overhang (Subtract)	4.101																
MEASURED LENGTH (LBG)		15.910															
Girth at Bow	1.396																
Twice vertical Height at Bow (Subtract)	1.2																
Girth Difference at FGS	0.196																
Add 1.5 x Girth Difference at FGS (min 0.540 m)	0.540																
Girth at Stern	2.931																
Twice vertical Height at Stern (Subtract)	1.702																
Girth Difference at AGS	1.229																
Add 1/3 Girth Difference at AGS (min 0.400 m)	0.410																
Add any penalty (Beam or Displacement)	0.000																
Sum of Length and Girth Corrections		16.860															
Age/Design Correction Factor (ADCF)(see page 3)	0.9647																
LENGTH (L)		16.265															
Skin IM to d1 Port	2.126																
Chain IM to d1 Port	2.121																
d Port	0.005																
Skin IM to d1 Starboard	2.099																
Chain IM to d1 Starboard	2.094																
d Starboard	0.005																
Add d	0.010																
Add GIRTH 2 d		0.020															
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <thead> <tr> <th>Datum Sta.</th> <th>Actual Sta.</th> <th>Rating FB</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">1.368</td> <td style="text-align: center;">1.368</td> </tr> <tr> <td></td> <td style="text-align: center;">1.017</td> <td style="text-align: center;">1.017</td> </tr> <tr> <td></td> <td style="text-align: center;">1.031</td> <td style="text-align: center;">1.031</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">3.416</td> </tr> </tbody> </table>	Datum Sta.	Actual Sta.	Rating FB		1.368	1.368		1.017	1.017		1.031	1.031			3.416	
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	1.368	1.368															
	1.017	1.017															
	1.031	1.031															
		3.416															
Mean Freeboard Bow																	
Mean Freeboard Midship																	
Mean Freeboard Stern																	
Sum of Freeboards		1.139															
Subtract FREEBOARD, F		13.240															
Add SAIL AREAS (Square root)		28.386															
TOTAL OF MEASUREMENTS		28.386															
PENALTY (Draft or Tumblehome)	0.000	0															
RATING		11.977															

Date and Place of Measurement	12-May-23	
Measurer's Name(s)	A Williams	Signature <i>Ander</i>

Yacht's name : <i>Easterner</i>		Date	12-May-23
Range Measurement (Yes or No)	no	Date:	

PENALTIES

Overhang Forward to MWL	2.693	
Overhang Aft to MWL	2.506	
Subtract from overall length	5.199	
Difference of immersion from salt to fresh water	Meas. Density	0.000
WATERLINE LENGTH (LWL)		14.812
Minimum Displacement for Zero Penalty [m3]	30.150	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)	30.904	
WEIGHT [tonne] Actual weight		30.200
Equivalent LWL (for Displ. < min.)	14.693	
Difference		
DISPLACEMENT PENALTY (add to L)		0.000
Displacement Determination Method	Hull Scan	
DRAFT (actual)	2.863	
Max. Draft for Zero Penalty	2.870	
Difference (if positive)		
DRAFT PENALTY (add to Rating)		0.000
BEAM (Min)	3.602	
Max Beam at 1/3 of Midship Freeboard	0.000	
Difference (if positive)	0.000	
BEAM PENALTY (add to L)		0.000
Tumblehome Max. (2 x 2% of Extr. Beam)	0.145	
Extreme Beam	3.631	
Beam at deck	3.590	
Difference (if positive)	-0.104	
TUMBLEHOME PENALTY (add to Rating)		0.000

Date and Place of Measurement	12-May-23	
Measurer's Name(s)	A Williams	Signature <i>Ander</i>

Design/Age Correction Factor Calculation			
Age Date	1958		
ADCF (Table E-2)	0.9647		
Hull Alteration Scope and Date			
Appendage Change Scope and Date			0.9647
Change/Alteration Correction ADCF			
Accommodation Deficiency Ballast			

Yacht's name : **Easterner**

Date

12-May-23

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 above Mast Datum =	<input type="text" value="1.540"/>	P=	<input type="text" value="23.460"/>	E=	<input type="text" value="10.300"/>
Rated Mainsail Area	<input type="text" value="120.819"/>	Spi boom=	<input type="text" value="7.400"/>	√S=	<input type="text" value="13.240"/>
J used for Rating			<input type="text" value="7.400"/>		
Rated Foretriangle Area	<input type="text" value="58.969"/>	Propeller allowance		<input type="text" value="0.975"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="179.788"/>	Corrected sail area		<input type="text" value="175.293"/>	

SAIL LIMITS

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="7.004"/>	3/4 height (41% of E)	<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="9.250"/>	max. luff length=	<input type="text" value="18.626"/>

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 <input type="text" value="340 x 249"/>	Half-Height <input type="text" value="340 x 249"/>	Jib-Halyard <input type="text" value="272 x 210"/>	Head <input type="text" value="172 x 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"/>	
Mast CG Correction (if applicable) Wt & CG	<input type="text" value=""/>	@	<input type="text" value=""/>	Mk ²	<input type="text" value=""/>

Engine/Propeller Installation

Engine and propeller weight	<input type="text" value="yes"/>	Propeller diameter =	<input type="text" value="0.620"/>
Minimum boat speed with engine	<input type="text" value="yes"/>	Propeller position =	<input type="text" value="Skewed"/>
Propeller Type (folding feathering fixed pitch etc.), no of blades		<input type="text" value="3"/>	<input type="text" value="Feathering"/>
Propeller Skew			<input type="text" value="0.975"/>

Flotation

Internal Ballast	Amount	Location aft of bow

Measurer's Notes

1	New deck	2021
2	Boat not weighed	
3		
4		

Date and Place of Measurement

12-May-23

Measurer's Name(s)

A Williams

Signature

