



12

INTERNATIONAL TWELVE METRE CLASS

Yacht's Name Onawa

National letters and Sail Number US 6 Club New York Yacht Club

Designer Burgess, Rigg and Morgan Ltd

Builder Aberking & Rasmussen Building Year 1928

Owner Earl McMillen III

Owner's Address PO Box 1495 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 July 7, 2009


Measurer A Williams Signature *A Williams*

Valid until July 7, 2011

Supersedes July 16, 2007

Signature *K. Hill* ITMA Technical Director

Stamp of Authority of the International Twelve Metre Association



CERTIFICATE REVALIDATION

This yacht has been declared by the Owner to be unchanged from her previous revalidated certificate dated July 7, 2009. Accordingly this certificate has been revalidated and remains valid until Jun 30, 2021.

Signature *K. Hill* ITMA Technical Director

July 8, 2019

RATING CALCULATION

OVERALL LENGTH

Overhang Forward to L1
 Overhang Aft to L1
 Total Overhang (Subtract)

2.930

2.395

5.325

20.854

MEASURED LENGTH (L1 L1)

Girth at Bow
 Twice vertical Height at Bow (Subtract)
 O at Bow
 Add 1 1/2 O at Bow (min 0.540 m)
 Girth at Stern
 Twice vertical Height at Stern (Subtract)
 O at Stern
 Add 1/3 O at Stern (min 0.400 m)
 Add any penalty (Beam)
 Sum of Length and Girth Corrections

1.757

1.200

0.557

0.836

3.228

1.660

1.568

0.523

0.000

15.529

Age Date and Allowance

1928/1939

Allowance

0.955

16.887

CORRECT LENGTH L

Skin d to d1 Port
 Chain d to d1 Port
 d Port
 Skin d to d1 Starboard
 Chain d to d1 Starboard
 d Starboard
 Add d

2.142

2.141

0.001

2.160

2.159

0.001

0.002

16.127

Add GIRTH 2 d

Mean Freeboard Bow O
 Mean Freeboard Midship d
 Mean Freeboard Stern O
 Sum of Freeboards

Actual
 Actual
 Actual

1.319

0.978

1.010

1.319

0.978

1.010

3.307

0.004

Subtract FREEBOARD, F**Add SAIL AREAS (Square root)****TOTAL OF MEASUREMENTS**

PENALTY (Draught)

See Notes

1.102

13.410

28.439

0.000

RATING

12.000

Date and place of Measurement

July 7, 2009

Measurer's Name(s)

A Williams

Signature



Certificate Revalidated


June 30, 2019

Certificate valid until

Jun 30, 2021

PENALTIES

Overhang Forward to L	3.530	
Overhang Aft to L	2.976	
Subtract from overall length	6.506	
Difference of imersion from salt to fresh water	0.000	
WATERLINE LENGTH		14.348
Minimum Displacement for Zero Penalty [m3]	27.533	
Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025)	26.517	
ACTUAL WEIGHT [tonnes]		Append E
Equivalent LWL (for Displ. < min.)		
Difference		
DISPLACEMENT PENALTY (add to L)		Append E
DRAUGHT (actual)	2.752	
Max. Draught for Zero Penalty	2.796	
Difference (if positive)		
DRAUGHT PENALTY (add to Rating)		0.000
BEAM (Min)	3.680	
Max Beam at 1/3 of Midship Freeboard	3.600	
Difference (if positive)	0.080	
BEAM PENALTY (add to L)		0.000
Tumblehome Max. (2 x 2% of Extr. Beam)	0.148	
Extreme Beam	3.690	
Beam at deck	3.673	
Difference (if positive)	0.017	
TUMBLEHOME PENALTY (add to Rating)		0.000

Date and place of Measurement	July 7, 2009	
Measurer's Name(s)	A Williams	Signature 
Certificate Revalidated	June 30, 2019	Certificate valid until Jun 30, 2021

SAIL PLAN

Max Height of Sail Plan =	25.000	J=	7.030	I =	18.740
Boom Height =	1.230	A=	23.770	B=	10.650
Rated Mainsail Area	126.575	Spi boom=	7.030	eS=	13.410
Rated Foretriangle Area	55.990	Propeller allowance			0.985
TOTAL RATED SAIL AREA	182.566	Corrected sail area			179.827

SAIL LIMITS

Mainsail max girth:	1/2 height (68%)	7.242	3/4 height (41%)	4.367
Genoa:	max. foot length (J + 4.8m)	11.830		
Spinnaker:	1/2 foot max breadth (125% J)	8.788	max. luff length=	18.512

Spar Measurement

MAST (material)	Wood	Mast Weight	510	CG pos.	10.445
Mast dimensions [mm]	Deck 260 x 354	Half-Height 255 x 350	Jib-Halyard 240 x 284	Head 145 x 194	
Sections area [cm ²]	723	701	535	221	

Engine/Propeller Installation

Engine and propeller weight	Yes	Propeller diameter =	0.525
Minimum boat speed with engine	Yes	Propeller position =	Not Skewed
Engine model and power	Yanmar 75 hp		


Flotation

Internal Ballast 220 kg @ J +3m

Measurer's Notes

Full fitout below

Re-configured to deeper draft 2009

Date and place of Measurement	July 7, 2009	Portsmouth RI USA
Measurer's Name(s)	A Williams	Signature 
Certificate Revalidated	June 30, 2019	Certificate valid until Jun 30, 2021