



INTERNATIONAL TWELVE METRE CLASS

Yacht's Name Intrepid

National letters and Sail Number US 22 Club New York Yacht Club

Designer Sparkman & Stephens

Builder Minneford Yacht Yard Inc. Building Year 1967

Owner Mr. Jack Curtin

Owner's Address 9 East 92nd St
New York, NY 10128

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: June 10, 2019

Measurer A Williams Signature Ander

Valid until June 10, 2021

Supersedes July 18, 2017

Is this an **Appendix E** Certificate? Y / N Yes

Was **Appendix F** used for Measurement? Y / N Yes
Hull Scanned Yes

Signature [Signature]
ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association

RATING CALCULATION

OVERALL LENGTH 19.604

Overhang Forward to FGS	1.811	
Overhang Aft to AGS	2.065	
Total Overhang (Subtract)	3.876	

MEASURED LENGTH (L_{BG}) 15.728

Girth at Bow	1.561	
Twice vertical Height at Bow (Subtract)	1.200	
Girth Difference at FGS	0.361	
Add 1.5 x Girth Difference at FGS (min 0.540 m)	0.542	
Girth at Stern	3.564	
Twice vertical Height at Stern (Subtract)	1.882	
Girth Difference at AGS	1.682	
Add 1/3 Girth Difference at AGS (min 0.400 m)	0.561	
Add any penalty (Beam or Displacement)		

Sum of Length and Girth Corrections 16.830

Age/Design Correction Factor (ADCF)(see page 3) 0.9840

LENGTH (L) 16.561

Skin IM to d1 Port	2.097	
Chain IM to d1 Port	2.096	
d Port	0.001	
Skin IM to d1 Starboard	2.094	
Chain IM to d1 Starboard	2.093	
d Starboard	0.001	
Add d	0.002	

Add GIRTH 2 d 0.004

Datum Sta.	Actual Sta.	Rating FB
	1.381	1.381
	1.143	1.143
	1.121	1.121
		3.645

Subtract FREEBOARD, F 1.210

Add SAIL AREAS (Square root) 13.077

TOTAL OF MEASUREMENTS 28.432

PENALTY (Draft or Tumblehome) 0

RATING 11.996

Date and Place of Measurement	10-Jun-19	
Measurer's Name(s)	A Williams	Signature

Yacht's name : Intrepid		Date	10-Jun-19
Range Measurement (Yes or No)	Yes	Date:	6-Jun-19

PENALTIES

Overhang Forward to MWL		2.484	
Overhang Aft to MWL		2.844	
Subtract from overall length		5.328	
Difference of immersion from salt to fresh water	Meas. Density		0.000
WATERLINE LENGTH (LWL)			14.276
Minimum Displacement for Zero Penalty [m3]		27.141	
Minimum Weight for Zero Penalty [ton] (Water of sg 1.025)		27.819	
WEIGHT [tonne] Actual weight			27.821
Equivalent LWL (for Displ. < min.)		14.276	
Difference		0.000	
DISPLACEMENT PENALTY (add to L)			0.000
Displacement Determination Method	Hull Scan		
DRAFT (actual)		2.786	
Max. Draft for Zero Penalty		2.784	
Difference (if positive)		0.002	
DRAFT PENALTY (add to Rating)	Appendix E		0.000
BEAM (Min)		3.608	
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)		0.000	
Extreme Beam		3.622	
Beam at deck		3.622	
Difference (if positive)		0.000	
TUMBLEHOME PENALTY (add to Rating)			0.000

Date and Place of Measurement	10-Jun-19	
Measurer's Name(s)	A Williams	Signature

Design/Age Correction Factor Calculation		
Age Date	1967	
ADCF (Table E-2)	0.9700	
Hull Alteration Scope and Date	1974	
Appendage Change Scope and Date	1974	
Change/Alteration Correction ADCF	0.984	
Accommodation Deficiency Ballast		

Yacht's name : Intrepid

Date

10-Jun-19

SAIL PLAN

Max Height of Sail Plan =	<input type="text" value="25.000"/>	J=	<input type="text" value="7.260"/>	I =	<input type="text" value="18.750"/>
Boom above Mast Datum =	<input type="text" value="1.550"/>	P=	<input type="text" value="23.450"/>	E=	<input type="text" value="9.650"/>
Rated Mainsail Area	<input type="text" value="113.146"/>	Spi boom=	<input type="text" value="7.260"/>	√S=	<input type="text" value="13.077"/>
J used for Rating			<input type="text" value="7.260"/>		
Rated Foretriangle Area	<input type="text" value="57.853"/>	Propeller allowance		<input type="text" value="1.000"/>	
TOTAL RATED SAIL AREA (S)	<input type="text" value="170.999"/>	Corrected sail area		<input type="text" value="170.999"/>	

SAIL LIMITS

Mainsail max girth:	1/2 height (68% of E)	<input type="text" value="6.562"/>	3/4 height (41% of E)	<input type="text" value="3.957"/>
Genoa:	max. foot length (J + 4.8m)	<input type="text" value="12.060"/>		
Spinnaker:	1/2 foot max breadth (125% J)	<input type="text" value="9.075"/>	max. luff length=	<input type="text" value="18.585"/>

Spar Measurement

MAST (material)	<input type="text" value="Aluminium"/>	Mast Weight	<input type="text" value="455"/>	CG pos.	<input type="text" value="9.503"/>
Mast dimensions [mm]	Deck <input type="text" value="352 x 246"/>	Half-Height <input type="text" value="350 x 246"/>	Jib-Halyard <input type="text" value="282 x 204"/>	Head <input type="text" value="166 x 126"/>	
Sections area [cm ²]	<input type="text" value="608"/>	<input type="text" value="676"/>	<input type="text" value="452"/>	<input type="text" value="166"/>	
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="NA"/>	Propeller diameter =	<input type="text" value=""/>
Minimum boat speed with engine	<input type="text" value=""/>	Propeller position =	<input type="text" value=""/>
Propeller Type (folding feathering fixed pitch etc.), no of blades	<input type="text" value=""/>		<input type="text" value=""/>
Propeller Skew	<input type="text" value=""/>		<input type="text" value=""/>

Flotation

Internal Ballast	Amount	Location aft of bow
Lead pigs	149kg	5.9 -> 6.2

Measurer's Notes

- 1 Engine and Propeller removed 2019
- 2 New mast 2019
- 3 New rudder 2005
- 4 Weight removed from keel
- 5
- 6
- 7
- 8

Date and Place of Measurement

10-Jun-19

Measurer's Name(s)

A Williams

Signature

