

# IRON SHIPS.

No. 343 Survey held at Mayaguez Date, First Survey 5th April 1871 Last Survey 25th July 1871

On the S.S. Ironclad "Esperanza" Master Crawford

Tonnage under Tonnage Deck 619.19 ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS. Half moulded breadth 14.25 Built at Mayaguez

Ditto of Third Spar, or Awning Deck. " Depth from upper part of Keel to top of Upper Deck Beams 17.25 Total Depth if three or more Decks "

Ditto of Poop, or Raised Quarter Deck. 95.65 Total Girth of Half Mid-ship Frame "

Ditto of Houses Deck. 27.52 3rd Number " Length "

Ditto of Forecastle of Forecastle 26.56 4th Number " Breadths to Length 7.67

Tonnage 768.92 1st Number 59.0 Length 218.8

Space, or Rule 43.20 2nd Number 909

Tonnage, as per Rule 769 Depths to Length 13.9

Net Tonnage 273.11 3rd Number " Length "

Gross Tonnage, as a Steamer 452.61 4th Number " Breadths to Length 7.67

When built 1871 Launched 24 Nov

By whom built J. J. Laurie

Owners Mayaguez & Matanzas S.M. Co

Port belonging to Mayaguez

Destined Voyage Coastwise

If Surveyed while Building, Afloat, or in Dry Dock.

Length on deck as per Rule, 118 Feet. 8 Inches. Moulded Breadth, 28 Feet. 6 Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule 15 Feet. 7 Inches. Power of Engines, 120 Horse. N° of Decks with flat laid 1 N° of Tiers of Beams 2

Dimensions of Ship per Register, length, 220.0 breadth, 28.6 depth, 15.6

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	8 - 2 3/8	8 - 2 3/8	7 - 2 3/8	7 - 2 3/8	7 - 4 3/4	7 - 4 3/4
Do. if centre through plate, depth and thickness	7 - 2 3/8	7 - 2 3/8	7 - 4 3/4	7 - 4 3/4	22 in	22 in
Stem, if bar iron, moulding and thickness	7 - 4 3/4	7 - 4 3/4	22 in	22 in	(Class 100A)	(Class 100A)
Stern-post for Rudder do. do.	22	22	4 3	4 3	4 3	4 3
Stern-post for Propeller	4 3	4 3	4 3	4 3	4 3	4 3
Distance of Frames from moulding edge to moulding edge, all fore and aft	4 3	4 3	4 3	4 3	4 3	4 3
Frames, size of Angle Iron, for 1/2 length amidships	4 3	4 3	4 3	4 3	4 3	4 3
Do. for 1/4 at each end	4 3	4 3	4 3	4 3	4 3	4 3
Reversed Frames, size of Angle Iron	4 3	4 3	4 3	4 3	4 3	4 3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	18 8/16	18 8/16	18 8/16	18 8/16	18 8/16	18 8/16
Do. at the ends	7/16	7/16	7/16	7/16	7/16	7/16
Do. do. do. at Bilge Keelson	7/16	7/16	7/16	7/16	7/16	7/16
Do. height extended at the Bilges	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Do. Upper, Spar, or Awning Deck (No. )	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Single or double Angle Iron, Plate or Tee Bulb Iron	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Single or double Angle Iron on Upper edge	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Average space	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Beams, Main or Middle Deck (No. )	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Single or double Angle Iron, Plate or Tee Bulb Iron	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Single or double Angle Iron on Upper Edge	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Average space	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Upper Deck, Hold or Orlop (No. )	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Single or double Angle Iron, Plate or Tee Bulb Iron	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Single or double Angle Iron on Upper Edge	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Average space	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Centre line, single or double plate, or Intercoastal, size of Plates	13 1/16	13 1/16	13 1/16	13 1/16	13 1/16	13 1/16
Plate to Intercoastal Keelson	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Angle Irons	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Intercoastal Keelson, size of Plates	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Angle Irons on tops of Floors	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Keelson, Bulb Iron	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16	7 8/16
Intercoastal plates riveted to plating for length	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Angle Irons	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Angle Irons (No. ) size of Angle Irons	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Intercoastal plates riveted to plating for length	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4	4 3/4
Transoms, material <u>iron</u> or, if none, in what manner compensated for.						
Knight-heads <u>iron</u> Hawse Timbers						
Windlass <u>patent</u> Pall Bitt <u>none</u>						
The Frames extend in one length from <u>centre line</u> to <u>upper deck</u> Riveted through plates with ( <u>3/4</u> in.) Rivets, about <u>6</u> apart.						
The Reverse Angle Irons on the floors and frames extend <u>from</u> the middle line to <u>main</u> and to <u>lower</u> alternately						
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>yes</u> And are their butts properly shifted? <u>yes</u>						
Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets ( <u>7/16</u> in.) diameter, averaging ( <u>4</u> ins.) from centre to centre.						
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( <u>3/4</u> in.) diameter, averaging ( <u>3 3/8</u> ins.) from centre to centre.						
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( <u>9/16</u> ) thick, double or single Riveted; with Rivets ( <u>3/4</u> in.) diameter averaging ( <u>3 3/8</u> ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>no</u>						
Do. of <u>2</u> Strakes at Bilge for <u>1/2</u> length, treble riveted with Butt Straps <u>7/16</u> thicker than their plates.						
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( <u>3/8</u> ) thick, or clencher, double or single riveted; with rivets ( <u>3/4</u> in.) diameter, averaging ( <u>3 3/8</u> ins.) from centre to centre.						
Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>single</u> At lower edge <u>double</u>						
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ( <u>9/16</u> ) thick, double or single Riveted; with Rivets ( <u>3/4</u> in.) diameter, averaging ( <u>3 3/8</u> ins.) from centre to centre.						
Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for <u>1/2</u> length amidships. Breadth of laps of plating in double Riveting ( <u>6 lines</u> ) Breadth of laps of plating in single Riveting ( <u>3 1/2 lines</u> )						
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?						
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)						
Beams of the various Decks, how secured to the sides? <u>inner riveted to frames</u> No. of Breasthooks, <u>four</u> Crutches, <u>four</u>						
That description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>as written</u>						
Manufacturer's name or trade mark, <u>Moulded</u>						
Verify that the above is a correct description of the several particulars therein given.						
Signature, <u>Builder from home</u> Surveyor's Signature, <u>W. J. Laurie</u>						



Workmanship. Are the plating planed or otherwise fitted? Planed  
Do the edges of the carvel and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes  
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Single pieces  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
Are there any rivets which either break into or have been put through the seams or butts of the plating? None

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of Iron or Steel give the scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit Fore and aft Masts Pine masts

9768 Iron

Tested at Melbourne by Mr. H. Reade Nov. 30/71

Tested at Melbourne by Mr. H. Reade Nov. 30/71 and Nov. 30/71

Number for equipment 14 199		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
	Fore Sails,	Chain .....		270	1 3/8	34	1 3/8	34				
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).										
	Fore Topmast Stay Sails	Hesperus Stream Cable		60	7/8							
	Main Sails,	Hawser .....		90	9	14/16						
	Main Top Sails,	Towlines ....		90	9	8						
and		Warp .....		90	5	5						
		All of <u>good</u> quality.		180	5 1/4							
		Kedges ....										

Her Standing and Running Rigging Fore and Aft sufficient in size and good in quality. She has two Long Boat and two others  
The present state of the Windlass is good Capstan good and Rudder good Pumps good and efficient  
Engine Room Skylights.—How constructed? Iron plate tank skylight How secured in ordinary weather? Man Bars and Stanchions  
What arrangements are there for deadlights in such for bad weather? Thick glass bars rope and Stanchions  
Coal Bunker Openings.—How constructed? Iron How are lids secured? Stops How high above deck? Flush  
Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Bricks laid in Bay windows.

Cargo Hatchways.—How formed? Iron plates and angle iron State size 10ft x 8 and 6ft x 6ft

If of extraordinary size, state how framed and secured? Yes

What arrangement for shifting beams? Yes

Hatches, themselves, whether strong and efficient? Yes Main Hatchways.—State size 16ft x 8ft.

Order for Special Survey No. 764 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Under General  
Date June 1/71 Surveys held 2nd. On the plating during the progress of riveting Survey from 5 April 71 to 2 February  
Order for Ordinary Survey No. ✓ while building 3rd. When the beams were in and fastened, and before the decks were laid 1872  
Date ✓ as per 4th. When the ship was complete, and before the plating was finally coated or cemented ✓  
No. 55 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks,

This Vessel has a full poop and fore-castle and hurricane deck  
is built in conformity with Midship section attached and to  
1870 and 1871 for the 100 A class

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, fore-castle or raised quarter deck, or of double or part double bottom.

In what manner are the surfaces preserved from oxidation? Inside Compound and Paint Outside Red lead & Paint

I am of opinion this Vessel should be Classed 100 A 1

The amount of the Entry Fee .....£ 5 : : is received by me,

Feb 1872 Special .....£ 38 : 9 :  
Certificate .... Boat's

(Travelling Expenses)  
(if any) £ 4 : 4 : =

Committee's Minute 6th February 1872

Character assigned 100 A 1

© 2019  
I concur in the opinion  
that this vessel is  
Classed 100 A 1  
Rules 1870 -