

"Formosa" IRON SHIP. 1885

No. 10931 Survey held at Sunderland Date, First Survey December 6th 1873 Last Survey August 18th 1874

On the "Formosa" Yard Number 201 Master not known

TONNAGE under Tonnage Deck } 995.23
Ditto of Third, Spar, or Awning Deck. }
Ditto of Poop, or Raised Qr. Dk. }
Ditto of Houses on Deck.... } 28.72
Ditto of Forecastle }
Gross Tonnage 1023.95
Less Crew Space 45.22
Less Engine Room 327.66
Register Tonnage } 651.07
as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING-DECKED VESSEL.
Feet.
HALF BREADTH (moulded)... 14.4
DEPTH from upper part of Keel to top of Upper Deck Beams 15.4
GIRTH of Half Midship Frame (as per Rule) 24.6
1st NUMBER 54.4
1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet
LENGTH 22.5
2nd NUMBER 12,240
PROPORTIONS—Breadths to Length below 8.82
Depths to Length—Upper Deck to Keel above 14
Main Deck ditto above 14

Built at Sunderland
When built 1874 Launched 3rd June
By whom built Jas Laming
Owners J Pile & Co of London
Port belonging to London
Destined Voyage Japan
Surveyed while Building, Afloat, & in Dry Dock.

LENGTH on deck as per Rule... 22.5 Feet. Inches. BREADTH—Moulded... 28 Feet. Inches. DEPTH top of Floors to Upper Deck Beams... 15 Feet. Inches. Do. do. Main Deck Beams... 15.5 Feet. Inches. Power of Engines... 120 Horse. N° of Decks with flat laid... 2 No. of Tiers of Beams... 2 No.

Dimensions of Ship per Register, length, 233.0 breadth, 29.3 depth, 20.9

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4	7 1/2 x 2 1/4
STEM, moulding and thickness	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8	7 x 2 3/8
STERN-POST for Rudder do. do.	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2
for Propeller	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2	7 1/2 x 4 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	22	22	22	22	22	22	22
FRAMES, Angle Iron, for 3/4 length amidships	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6
Do. for 1/2 at each end	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6	3 1/2 x 6
REVERSED FRAMES, Angle Iron	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4	15 1/2 x 6 1/4
thickness at the ends of vessel	5	5	5	5	5	5	5	5
depth at 3/4 the half-bdth. as per Rule	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4
height extended at the Bilges	twice the amidships depth	twice the amidships depth	twice the amidships depth	twice the amidships depth	twice the amidships depth	twice the amidships depth	twice the amidships depth	twice the amidships depth
BEAMS, Upper, Spar, or Awning-Deck Single or double Angle Iron, Plate or Tee Bulb Iron	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5
Single or double Angle Iron on Upper edge	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4
Average space	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames
BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7
Single or double Angle Iron on Upper Edge	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5	2 1/2 x 5
Average space	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames
BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5	5 1/2 x 5
Single or double Angle Iron on Upper Edge	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4	2 1/4 x 4
Average space	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	13 x 10	13 x 10	13 x 10	13 x 10	13 x 10	13 x 10	13 x 10	13 x 10
" Rider Plate	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
" Bulb Plate to Intercostal Keelson	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Double Angle Iron Side Keelson	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Side Intercostal Plate	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
" do. Angle Irons	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
" Attached to outside plating with angle iron	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2
BILGE Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" do. Bulb Iron	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7	7 x 7
" do. Intercostal plates riveted to plating for length	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
BILGE STRINGER Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2	4 1/2 x 3 1/2
Intercostal plates riveted to plating for 3/5 the length.	—	—	—	—	—	—	—	—
SIDE STRINGER Angle Irons	—	—	—	—	—	—	—	—

Transoms, material. Knight-heads. Hawse Timbers. Iron plates
Windlass Emerson and Walker's patent Secured to Lap Carlings
The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 1/2 apart.
The REVERSED ANGLE IRONS on floors and frames extend near middle line to Main and to Spar Decks alternately
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes

PLATING. Garboard, double riveted to Keel, with rivets 1 in. diameter, averaging 5 ins. from centre to centre.
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 ins. from centre to centre.
Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. double Upper Sheerstrake, double or single riveted. double and single
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.
Breadth of laps of plating in double riveting 4 1/2 to 5 1/4 Breadth of laps of plating in single riveting 2 1/4 ins

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and Double Riveted
Waterway, how secured to Beams vertically riveted and (Explain by Sketch, if necessary.) Yes
Beams of the various Decks, how secured to the sides? ends turned down & riveted to No. of Breasthooks, five Crutches, four
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Keel has Wrought Iron Plates
Manufacturer's name or trade mark, James & Co. Reverse frames Isaac and Co. Stringer Plates Richardson & Co. Shell plates Consett Iron Works Bulbs Floor-plates and Stringer angle from Richardson and Co.

The above is a correct description.
Builder's Signature, James Laming Surveyor's Signature, Joseph Keen

Workmanship. Are the butts of plating planed or otherwise fitted? planed 13185 Iron
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes
Are the fillings between the ribs and plates solid single pieces? single pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes
Do any rivets break into or through the seams or butts of the plating? in a few cases only

Masts, Bowsprit, Yards, &c., are Wood in good condition, and sufficient in size and length. If of Iron or Steel give 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

NUMBER for EQUIPMENT 5390

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Lngh. & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
1	Fore Sails,	Chain ...	240	1 7/8	34 3/20	240-1 7/8	34 3/20	Bowers ...	1	18.1.14	19.6.2.7	18.0.0	19.0.0.0
2	Fore Topmast Stay Sails,	Chain ...	90	1 5/8	34 3/20	240-1 5/8	34 3/20	Stream ...	1	8.0.4	8.0.0	8.0.0	8.0.0
3	Fore Topmast Stay Sails,	Chain ...	90	6 1/2	34 3/20	240-6 1/2	34 3/20	Kedges ...	1	4.0.0	4.0.0	4.0.0	4.0.0
4	Main Sails,	Chain ...	90	5 1/2	34 3/20	240-5 1/2	34 3/20						
5	Main Top Sails,	Chain ...	90	4 1/2	34 3/20	240-4 1/2	34 3/20						

Standing and Running Rigging Sails S.W. & Hemp sufficient in size and good in quality. She has 2 Long Boats and 2 others total 5.

The Windlass is Emerson and Walker's Capstan 2 and Rudder good Pumps one in each Hold, char. of Engine

Engine Room Skylights.—How constructed? Wood Coamings on Iron How secured in ordinary weather? Thumb Screws & bars

What arrangements for deadlights in bad weather? Solid Wood Shutters fitted with Bulls eyes

Coal Bunker Openings.—How constructed? Spicular plates How are lids secured? Studs &c Height above deck? 7 1/2 ft

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Scuppers & Guard Rails

Cargo Hatchways.—How formed? Iron Coamings strengthened with angles and bars &c

State size Main Hatch 8 by 14 1/2 feet Forehatch 7 x 7 1/2 feet Quarterhatch 8 x 14 1/2 feet

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? Two large Hatches have one athwartship & one fore and aft

Hatches, If strong and efficient? Yes

Order for Special Survey No. 2468

Date 31 December 1873

Order for Ordinary Survey No. —

Date —

No. 201 in builder's yard.

DATES of Surveys held while building as per Section 18:

- 1st. On the several parts of the frame, when in place, and before the plating was wrought
- 2nd. On the plating during the process of riveting
- 3rd. When the beams were in and fastened, and before the decks were laid....
- 4th. When the ship was complete, and before the plating was finally coated or cemented..
- 5th. After the ship was launched and equipped

Built under Special Surveyed 1873 Dec 6 27 30 7/4 Jan 6 8 12 14 16 22 27 30 Feb 4 11 17 20 24 28 29 March 2 5 9 11 13 20 26 30 April 2 3 10 14 17 20 24 27 May 1 5 7 12 16 19 23 27 June 1 5 10 22 25 29 July 3 7 13 16 20 23 27 30 Aug 10 17 18 18

General Remarks, (State quality of workmanship &c.) Good.

This Vessel has a Deck House Aft 12 x 19 feet
She has Side Bridge Houses each 16 x 4 1/2 feet and the
Engine and Boiler Hatches are entirely protected by
Iron Houses on the Spar Deck; it will be
seen on the other side that the Reverse has all
fore and aft are run up to Main and Spar
Decks alternately, Rule requiring them to the Hold
stringer plate and Main stringer plate alternately the
Frames at the ends are also in excess of Rule.

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

How are the surfaces preserved from oxidation? Inside Cement to Bilges Paint above Outside Composition Paint

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

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me,

Special ... £ 48 : 19 : 0 2nd Sept 1874

Certificate ... : : HTT

(Travelling Expenses)

(if any) £

Committee's Minute 4th September 1874

Character assigned 100 A

A & C Spar Decked
Mc HTT

This vessel appears eligible to be classed as recommended by

100 A 1 Spar Decked
2 Decked

Lloyd's Register
Foundation