

STEEL IRON SHIP.

(Received at London Office, 17 AUG 89)

No. 7608 Survey held at *Middleborough* Date, First Survey *Nov 30th 88* Last Survey *August 10th 1889*
On the *Steel Screw Steamer* **IRONOPOLIS** 2 masted Schooner. Master *R. Robinson*

TONNAGE under Tonnage Deck *1824.18*
Ditto of *Third Spar* *333.09*
E or Awning Deck. *2 157.27*
Ditto of *Reaper* *172.78*
Raised Or. Dk. *5.85*
Ditto of *Houses* *23.71*
on Deck
Ditto of *Excels* *2359.61*
Gross Tonnage
Crew Space *53.41*

ONE, OR TWO DECKED, THREE-DECKED VESSEL,
Part SPAR, OR AWNING-DECKED VESSEL.
Half Breadth (moulded) *18.89*
Depth from upper part of Keel to top of Upper Deck Beams *23.50*
Girth of Half Midship Frame (as per Rule) *37.50*
1st Number *79.89*
1st Number, if a 3-Decked Vessel deduct 7 feet *✓*
Length *293.33*
2nd Number *234314*
Proportions— Breadths to Length *7.7*
Depths to Length— Upper Deck to Keel *12.48*
Main Deck ditto

Built at *Middleborough*
When built *1888-9* Launched *June 3rd 89*
By whom built *Raylton Dixon & Co*
Owners *J. M. Lennard & Sons*
Residence *Middleborough*
Port belonging to *Middleborough*
Destined Voyage
X Surveyed while Building Afloat, or in Dry Dock.

LENGTH on deck as per Rule *293 4* BREADTH Moulded *37 10* DEPTH top of Floors to Upper Deck Beams *20 4* Power of Engines *200* Horse. No. of Decks with flat laid *1* No. of Tiers of Beams *2*
Dimensions of Ship per Register, length, *295.0* breadth, *38.2* depth, *20.1* Moulded depth *22.9*

slab
KEEL, depth and thickness *10 x 1 1/2*
STEM, moulding and thickness *10 x 2 3/4*
STERN-POST for Rudder do. do. *10 x 6*
" " for Propeller *24*
Distance of Frames from moulding edge to moulding edge, all fore and aft *24*
FRAMES, Angle Iron, for 1/2 length amidships *5 3 8*
Do. for 1/2 at each end *5 3 7*
REVERSED FRAMES, Angle Iron *32 3 8*
RS, depth and thickness of Floor Plate *Cellular double*
mid line for half length amidships *bottom as per*
thickness at the ends of vessel *approved plans*
depth at 1/2 the half-bdth. as per Rule
height extended at the Bilges
BEAMS, Upper Spar, or Awning Deck *62 3 8*
Single or double Ang. Iron, Plate or Tee Bulb Iron
Single or double Angle Iron on Upper edge *48*
Average space *48*
BEAMS, Main, or Middle Deck *62 3 9*
Single or double Ang. Iron, Plate or Tee Bulb Iron
Single, or double Angle Iron, on Upper Edge *24*
Average space *24*
BEAMS, Lower Deck *9 52 9*
Single or double Ang. Iron, Plate or Tee Bulb Iron
Single or double Angle Iron on Upper Edge *see elevation*
Average space
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates *Cellular double*
Rider Plate *bottom as per*
Bulb Plate to Intercoastal Keelson *approved plans*
Angle Irons *bottom as per*
Double Angle Iron Side Keelson *approved plans*
Side Intercoastal Plate *bottom as per*
do. Angle Irons *approved plans*
Attached to outside plating with angle iron
BILGE Angle Irons *web frames and*
do. Bulb Iron *intercoastal stringers*
do. Intercoastal plates riveted to plating for length *as per plans*
BILGE STRINGER Angle Irons *web frames and*
Intercoastal plates riveted to plating for length *as per plans*
SIDE STRINGER Angle Irons *as per plans*

Flat Keel Plates, breadth and thickness
PLATES in Garboard Strakes, br'dth & thickness *36 12 36 12*
From Garboard to upper part of Bilges *11 11*
Of d'bling at Bilge, or increased thickness, and length applied
From up. prt of Bilge to l. edge of Sh'rstrake *11 11*
Main Sheerstrake, breadth and thickness *40 13 40 13*
Of d'bling at Sh'stk & lng. applied *20 ft*
From Main to Upper or Spar Dk. Sh'rstrake *9 9*
Upper Spar Dk Sh'rstrake, br'dth & thickn'ss *10 10*
Butt Straps to outside plating, breadth & thickness *19 6 9 16 6 11 19 6 9 16 6 11*
Lengths of Plating *7 spaces of frame*
Shifts of Plating, and Stringers *as per rule*
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness *36 9 36 9*
Angle Iron on ditto *3 x 3 8 3 x 3 8*
Tie Plates fore and aft, outside Hatchways
Diagonal Tie Plates on Beams No. of Pairs
Flat of Up., Spar, or Awning Dk. *Iron*
How fastened to Beams *riveted*
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness *42 10 42 10*
Is the Stringer Plate attached to the outside plating? *40*
Angle Irons on ditto, No. *2* *4 x 4 9 4 x 4 9*
Tie Plates, outside Hatchways
Diagonal Tie Plates on Beams, No. of pairs
Flat of Middle Deck do. *Iron*
How fastened to Beams *riveted*
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams *under R&D* *39 9 39 9*
Is the Stringer Plate attached to the outside plating? *40*
Angle Irons on ditto, No. *2* *4 x 4 9 4 x 4 9*
Stringer or Tie Plates, outside Hatchways
Flat of Lower Deck
Ceiling betwixt Decks, thickness and material *Iron battens*
" in hold do. do. *2 1/2 time 2 1/2*
Main piece of Rudder, diameter at head *7 3/4*
do. at heel *5 x 4 3/4* *3 3/4*
Can the Rudder be unshipped afloat? *40*
Bulkheads No. *5* No. per Rule *5*
Thickness of *30 to 60 at top* *Collision Bh'd up*
Height up *Main and Quarter dks. to Port Along dks.*
How secured to sides of ship *double frames*
Size of Vertical Angle Irons *5 x 3 x 3/8* and distance apart *30 ins.*
Are the outside Plates doubled two spaces of Frames in length? *40*

The FRAMES extend in one length from *bilge to bilge, & bilge to Mn dr, & dks to Plating* Riveted through plates with *7/8* in. Rivets, about *7*" apart.
The REVERSED ANGLE IRONS on floors and frames extend *across middle line to bilge, & hold bms & 2nd dk and to Mn dr in dks* alternately
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? *40* And butts properly shifted? *yes* *Plating dks*

LATING. Garboard, double riveted to Keel, with rivets *1 1/8* in. diameter, averaging *5 1/2* ins. from centre to centre.
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 1/2* ins. from centre to centre.
Butts of all Strakes at Bilge for *2* length, treble riveted with Butt Straps *3/20* thicker than the plates they connect. *unless lapped*
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. *Or Along Upper Sheerstrake, double or single riveted.*
Butts of Main Sheerstrake, treble riveted for *2* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *length amidships.*
Butts of Main Stringer Plate, treble riveted for *2* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *length.*
Breadth of laps of plating in double riveting *6 diam.* Breadth of laps of plating in single riveting *✓*

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted *✓* No. of Breasthooks, *4* Crutches, *deep floors*
What description of *Iron* is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Simons Martin*
Manufacturer's name or trade mark *Rossett, Boleton Vaughan & Co. Dorman Long & Co. J. M. Martin & Co. J. M. Bannfield & Son.*
The above is a correct description.
Builder's Signature, *Wm. Martin* Surveyor's Signature, *J. M. Williams*
Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship.

Are the butts of plating planed or otherwise fitted?

Planed

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?

Yes

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?

A few.

Masts, Bowsprit, Yards, &c., are Iron & Pine 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

Fore Mast 78' x 24 1/2" diam } 2 plate in the wood 3/8" thick, butts double rivetted,
Main " 63' x 23" " } seams double rivetted, doubled at partners & heels.
Plate tested.

NUMBER & LETTER for EQUIPMENT		26363	S	Test per Certificate.	Inches per Rule.	Machine where Tested and Superintendent, also Number of Certificate.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W't req'd per Rule.	Machine where Tested and Superintendent, also Number of Certificate.
1 Unit	SAILS.	CABLES, &c.	Fathoms.	Inches.			Bower					
		Chain	270	1 1/8	59 1/2 tons	1 1/8	Anchors	18950	40.1.7	36.0.2.14	32 cut	Riv. Near Com
	Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	No 7696	Apr. 25 th 89								
		Iron Steam Chain	75	1 1/8	22 3/4 tons	1 1/8		18948	40.0.2	35.10.3.14	60 1/2 91.1.0	J. Hartness
	Fore Top Sails,	Steel Wire	No 7704	Apr. 9 th 89								
		Homopon Strm										
	Fore Topmast Stay Sails,	Cable					Smith's	18949	34.1.20	32.0.0.0	25 1/2 22.3.7	Sup't
		Towline, Homop	90	4	33 1/2 tons	4"	Stocks		114.3.1			
	Main Sails,	Steel Wire	90	3	18 "		Steel	207	16	16	16	16
	Main Top Sails, and	Hawser	90	9 1/2		9 1/2	Stream	18642	10.3.0	12.13.0.14	10.2.0	Apr. 18.89
		Warp	90	7 1/2		7 1/2	Anchor	18506	5.2.21	8.0.2.14	5.1.0	Nov 25 th 89
		quality	good				Kedge	18506	5.2.21	8.0.2.14	5.1.0	Oct 18 th 88

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has 2 Life Boats and 20 others

The Windlass is Iron, Steam Capstan ✓ and Rudder iron Pumps iron

Engine Room Skylights. How constructed? Plate coming up How secured in ordinary weather? Plate with flaps & thick glass lights

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed? Plate coming up How are lids secured? bleat & battens Height above deck? 54" & 12"

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? On quarter deck 4 ports 36" x 15"
4 scuppers each side.

Cargo Hatchways. How formed? Plate coming up No 1 & 2, 27" high No 3 & 4, 30 in. high

State size No 1 17' 9" x 12' 6" No 2, 23' 9" No 3 21' 10" x 14' 0" No 4, 23' 6" x 14' 0"

If of extraordinary size, state how framed and secured? No 1, 1 web beam 3 free & afters. No 3, 2 web beams 3 free & afters

What arrangement for shifting beams? " 2 2 " " 3 " " " 4 2 " " 3 "

Hatches, If strong and efficient? 2 3/4" thick solid pine

Order for Special Survey No. 1314
Date Oct 10th 1888
Order for Ordinary Survey No. ✓
Date ✓
No. 298 in builder's yard.
State dates of letters respecting this case Sept 18th 88, Apr. 2nd 89 M.

Built under Special Survey
1st Visit Nov. 30th 88
last " Augth 10th 89
No of visits 70

General Remarks (State quality of workmanship, &c.) Built under Special Survey in accordance with the plans approved, and the rules for steel vessels. The workmanship and materials are good, the steel has been tested as per rules.

The hull has been filled in, all the reverse bars being run up to Main deck from break forward.

The freeboard has been marked on the vessel in accordance with that assigned to the St. Collingham No 300 in the same yard, of which this vessel is a duplicate. See Secy's ltr March 28th 89, as follows. From top of port awning deck stringer, Summer 9' 1", Winter 9' 5", allowance for fresh water 4 1/2". The freeboard to be recorded on the Register Book and on the certificate of classification.

State if one, two, or three decked vessel, or if open, or awning decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside Portland Cement, & paint above Outside Paint.

I am of opinion this Vessel should be Classed + 100A1 Steel Port Awning dk.

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

Special£ 84 : : 15 " 8 1889

(to be sent as per margin). Certificate ... : :

(Travelling Expenses, if any, £)

Committee's Minute JULY 20 AUGUST 1889

Character assigned 100A1 Steel pt Awning deck

subject to Freeboard as approved

being marked on sides in cut. & in Reg. bk.

10K (Iron) & pt. awning deck (Iron) & Web frames

A.T.C.P. & E.M.C.

H. M. Williams

Surveyor to Lloyd's Register of British and Foreign Shipping.

It is submitted that this vessel appears eligible

to be classed 100.A.1 (Steel) Pt. Awning dk. as

recommended subject to the freeboard

approved by the Committee being marked

on the vessel's sides in cut. & in Reg. bk.

(Iron) & Pt. Awning dk (Iron) & Web frames

as particulars appended

19/8/89 C. 723