

IRON SHIP.

No. 1740 Survey held at Southampton Date, First Survey 9 July 1875 Last Survey 29 May 1876
 On the S. S. Alexandra Yard Number 38 Master James Robt. Chas. Mable
 Tonnage under Deck 120.7 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. 120.7 SPAR, OR AWNING-DECKED VESSEL.
 Ditto of Poop, or Raised Qr. Dk. 120.7 HALF BREADTH (moulded) 9.5 Feet.
 Ditto of Houses on Deck 120.7 DEPTH from upper part of Keel to top of Upper Deck Beams 10.38
 Ditto of Forecastle 120.7 GIRTH of Half Midship Frame (as per Rule) 16.5
 Gross Tonnage 120.7 1st NUMBER 26.38
 Less Crew Space 120.7 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet 110.0
 Less Engine Room 58.27 LENGTH 110.0
 Register Tonnage (as cut on Beam) 62.49 2nd NUMBER 4001.8
 PROPORTIONS—Breadths to Length Indus. 6
 Depths to Length—Upper Deck to Keel Indus. 11
 Main Deck ditto Indus. 11
 Built at Northam South
 When built 1876 Launched 25 March
 By whom built Day, Summers & Co.
 Owners Southampton Steam Towing Comp.
 Port belonging to Southampton
 Destined Voyage Voyage purposes
 If Surveyed while Building, Afloat, or in Dry Dock. on Patent Ship

LENGTH on deck as per Rule 110.0 Breadth Moulded 19.0 DEPTH top of Floors to Upper Deck Beams 10.38 Power of Engines 40 Horse. 40 No. of Decks with flat laid One No. of Tiers of Beams One

Dimensions of Ship per Register, length, 110, breadth, 19.13 depth, 8.92

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	6 1/2 x 1 3/16	6 3/4 x 1 1/2	6 1/2 x 1 3/16	6 x 1 1/16	6 1/2 x 1 3/16	6 x 1 1/16
STEM, moulding and thickness	6 1/2 x 1 3/16	6 x 1 1/16	6 1/2 x 1 3/16	6 x 1 1/16	6 1/2 x 1 3/16	6 x 1 1/16
STERN-POST for Rudder do. do.	8 x 2 3/16	6 x 2 3/16	8 x 2 3/16	6 x 2 3/16	8 x 2 3/16	6 x 2 3/16
for Propeller	8 x 2 3/16	6 x 2 3/16	8 x 2 3/16	6 x 2 3/16	8 x 2 3/16	6 x 2 3/16
Distance of Frames from moulding edge to moulding edge, all fore and aft	20 ins	(Class 90A)	20 ins	(Class 90A)	20 ins	(Class 90A)
FRAMES, Angle Iron, for length amidships	2 1/2 x 2 1/2	5 x 5	2 1/2 x 2 1/2	5 x 5	2 1/2 x 2 1/2	5 x 5
Do. for each end	2 1/2 x 2 1/2	5 x 5	2 1/2 x 2 1/2	5 x 5	2 1/2 x 2 1/2	5 x 5
REVERSED FRAMES, Angle Iron	2 1/2 x 2 1/2	4 x 4	2 1/2 x 2 1/2	4 x 4	2 1/2 x 2 1/2	4 x 4
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	14	5	14	5	14	5
thickness at the ends of vessel	14	5	14	5	14	5
depth at 3/4 the half-bath, as per Rule	14	5	14	5	14	5
height extended at the Bilges	14	5	14	5	14	5
BEAMS, Upper, Spar, or Main Deck	5	3	5	3	5	3
Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	5	3	5	3
Single or double Angle Iron on Upper edge	5	3	5	3	5	3
Average space	40		40		40	
BEAMS, Main or Middle Deck	5	3	5	3	5	3
Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	5	3	5	3
Single or double Angle Iron, on Upper Edge	5	3	5	3	5	3
Average space	40		40		40	
BEAMS, Lower Deck, Hold or Orlop	5	3	5	3	5	3
Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	5	3	5	3
Single or double Angle Iron on Upper Edge	5	3	5	3	5	3
Average space	40		40		40	
KEELSONS Centre line, single or double plate, hot, or intercostal plates	8 1/2	7	8 1/2	7	8 1/2	7
" Rider Plate	6 1/2	7	6 1/2	7	6 1/2	7
" Bulb Plate to intercostal Keelson	3	3	6	3	3	6
" Angle Irons	3	3	6	3	3	6
" Double Angle Iron Side Keelson	3	3	6	3	3	6
" Side intercostal plate	3	3	6	3	3	6
" do. Angle Irons	3	3	6	3	3	6
" Attached to outside plating with angle iron	3	3	6	3	3	6
ILGE Angle Irons	3	3	6	3	3	6
" do. Bulb Iron	3	3	6	3	3	6
" do. Intercostal plates riveted to plating for length	3	3	6	3	3	6
ILGE STRINGER Angle Irons	3	3	6	3	3	6
Intercostal plates riveted to plating for length	3	3	6	3	3	6
IDE STRINGER Angle Irons	3	3	6	3	3	6
ansoms, material. Knight-heads. Hawse Timbers.	Plate 1/4 inch iron		Plate 1/4 inch iron		Plate 1/4 inch iron	
Windlass	Iron		Iron		Iron	
Pull Bitt	Iron		Iron		Iron	

	Inches in Ship.	16ths. In Ship.	Inches required	16ths. required
Flat Keel Plates, breadth and thickness	30	7	30	7
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	30 1/2	5 1/2	30	5 1/2
fm up. part of Bilge to l. edge of Sh'rstrake	32 1/2	5 1/2	30	5 1/2
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	31	7	30	7
Sp. or Spar Dk. Sh'rstrake, breadth & thickness	31	7	30	7
Butt Straps to outside plating, breadth & thickness	8 1/2	7 1/2	8 1/2	7 1/2
Lengths of Plating	10 feet		8 feet 6 ins	
Shifts of Plating, and Stringers	40		40	
Gunwale, Plate on ends of Awaiting, Spar, or Upper Deck Beams, breadth and thickness	25	6	23	6
Angle Iron on ditto	2 1/2 x 3 1/2	2 1/2 x 2 1/2	6	3 x 3
Tie Plates fore and aft, outside Hatchways	7	6	7	6
Diagonal Tie Plates on Beams No. of Pairs	3		3	
Blankets material and scantling	3		3	
Waterways	3		3	
Flat of Upper Deck do.	3		3	
How fastened to Beams	3		3	
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	3		3	
Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Waterways materials and scantlings				
Flat of Middle Deck do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material in hold Oak do. & Fir do.	2		2	
Main piece of Rudder, diameter at head do. at heel	3 1/2		3 1/2	
Can the Rudder be unshipped afloat?	Yes		Yes	
Bulkheads No. 3 Thickness of 1 1/2				
Height up to Upper deck Beams				
How secured to sides of ship Between double frames				
Size of Vertical Angle Irons 2 1/2 x 2 1/2 x 7/16 and distance apart 30 ins.				
Are the outside Plates doubled two spaces of Frames in length?	Yes		Yes	

The FRAMES extend in one length from Keel to Gumwale Riveted through plates with 10/16 in. Rivets, about 4 1/2 apart.
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to upper turn of Bilge and to Gumwale 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 16/16 in. diameter, averaging 4 3/4 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 10/16 in. diameter, averaging 2 1/2 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 10 1/2 in. diameter averaging 2 1/2 ins. from centre to centre.
 Butts of One Strakes at Bilge for Whole length, double riveted with Butt Straps 1 1/2 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double & single riveted; with rivets 10/16 in. diameter, averaging 2 1/2 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 10/16 in. diameter, averaging 2 1/2 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, double riveted for Whole length amidships. Butts of Upper or Spar Sheerstrake, treble riveted Whole length amidships.
 Butts of Main Stringer Plate, double riveted for Whole length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for Whole length.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?
 Waterway, how secured to Beams Gutter (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Welded Iron Knee Plate No. of Breasthooks, Two Crutches, Two
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Hopkinsons & Co. Middlesbrough
 Manufacturer's name or trade mark, Day, Summers & Co.

The above is a correct description.
 Builder's Signature, Day, Summers & Co. Surveyor's Signature, Edw. P. Smith

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? No 17211 Iron

Masts, Bowsprit, Yards, &c., are in Good condition, and sufficient in size and length. If of Iron or Steel give
Scantlings of Plating, Angle Iron, &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 Mast and Bowsprit 43.6 above deck 12" Dia Red Pine (Pole head)

NUMBER for EQUIPMENT

N^o. SAILS. CABLES, &c.
Fore Sails, Chain
Fore Top Sails, (State Machine where
Fore Topmast Stay Sails, Tested, Date, & name of
Main Sails, Hmpn Strm Cbl
Main Top Sails, Hawser
Warp
quality Good

Fathoms. Inches. Test per Certificate. Lgh. & Size req'd pr Rule. Test req'd per Rule.
12.4 3/4 10 1/2
10 1/2
90 4 6
See letter
8 April 1876

Ordinary

ANCHORS, N^o. Weight. Ex. Stock. Test per Certificate. Wght req'd per Rule. Test req'd per Rule.
Bowers ... 1 2.3.0 5.5.0.0
1 3.0.0 5.10.0.0
4 May 1876
J. Tregenna
Stream ... 1 1.2.0
Kedges ... 1 1.0.0

Standing and Running Rigging Iron & Hemp sufficient in size and Good in quality. She has One Long Boat and One jolly
The Windlass is Iron Good Capstan and Rudder Good Pumps Good
Engine Room Skylights. How constructed Iron Coaming & Wood Skylights How secured in ordinary weather To Coamings with screw bolts
What arrangements for deadlights in bad weather? Good deadlights and fastened down with tarpaulins same as skylights
Coal Bunker Openings. How constructed? Cast iron frame How are lids secured? Stop slud Height above deck? Flush
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Three flaps and gang way each side
Cargo Hatchways. How formed? None Coaming of Head Lids Skylights & Ladderways
State size Main Hatch 13 feet by 8 feet Fore hatch Engine Hatch Quarter hatch 12 feet 3 ins 16 feet
If of extraordinary size, state how framed and secured?
What arrangement for shifting beams?
Hatches, If strong and efficient? None Skylights and Coamings strong & efficient

Order for Special Survey No. 18. 1st. On the several parts of the frame, when in place, and before the plating was wrought
Date 2nd. On the plating during the process of riveting
Order for Ordinary Survey No. 3rd. When the beams were in and fastened, and before the decks were laid...
Date 5 Aug 1875 4th. When the ship was complete, and before the plating was finally coated or cemented...
No. 238 in builder's yard. 5th. After the ship was launched and equipped

General Remarks, (State quality of workmanship &c.) The workmanship is good strong and efficient
And the Countersinking well done
This vessel has been built under Ordinary Survey for Towing Purpose
And in accordance with the Scantlings And Arrangements shown on the
accompanying approved tracing of midship section And in other respect
in accordance with the rules
The Beams in wake of the engine and Boilers are covered with
Iron plating 1/8" thick
Breaking strain applied to three humps cut out of each length of Chain
Cable of 15 Fathoms 15 1/2 Tons as per Certificate

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 & Paint Outside Composition & Paint

I am of opinion this Vessel should be Classed 90 A For Towing Purposes

The amount of the Entry Fee ... £ 2 : 0 : 0 is received by me, Edw Elliott
Special ... £ 5 : 5 : 0 1876
Certificate ... signature 26 October

(Travelling Expenses) (if any) £ None
Committee's Minute 3rd November 1876

Character assigned 90 A
For Towing purposes
only.

