

IRON SHIP.

No. 1440 Survey held at Southampton Date, First Survey July 1875 Last Survey 29 May 1876

On the S. S. Alexandra Yard Number 38 Master James Robt. Chas. Mable

TONNAGE under Tonnage Deck 120.7
 Ditto of Third, Spar, or Awning Deck. }
 Ditto of Poop, or Raised Qr. Dk. }
 Ditto of Houses on Deck. }
 Ditto of Forecastle }
 Gross Tonnage 120.7
 Less Crew Space }
 Less Engine Room 58.21
 Register Tonnage as cut on Beam 62.49

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING-DECKED VESSEL.
HALF BREADTH (moulded) 9.5 Feet.
DEPTH from upper part of Keel to top of Upper Deck Beams 10.38
GIRTH of Half Midship Frame (as per Rule) 16.5
1st NUMBER 26.38
1st NUMBER, if a THREE-DECKED VESSEL
 deduct 7 feet
LENGTH 110.0
2nd NUMBER 4001.8
PROPORTIONS—Breadths to Length Yndian 6
 Depths to Length—Upper Deck to Keel Indian 11
 Main Deck ditto

Built at Northam South
 When built 1876 Launched 25 March
 By whom built Day Summers & Co
 Owners Southampton Steam Towing Comp^y
 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 4 1/2 **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 1/2, depth, 8 9/2

	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 5/16	6 3/4 x 1 1/2				
STEM , moulding and thickness	6 1/2 x 1 5/16	6 x 1 1/4				
STERN-POST for Rudder do. do.	8 x 2 3/16	6 x 2 5/16				
for Propeller	8 x 2 3/16	6 x 2 5/16				
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>20 ins</u> (Class <u>90A</u>)					
FRAMES , Angle Iron, for length amidships						
Do. for 1/4 of each end	2 1/2	2 1/2	5	2 1/2	2 1/2	5
REVERSED FRAMES , Angle Iron	2 1/4	2 1/4	4	2 1/4	2 1/4	4
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	14		5	11		5
thickness at the ends of vessel						
depth at 3/4 the half-bath, as per Rule						
height extended at the Bilges						
BEAMS , Upper, Spar, or Awning Deck						
Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	4	5	3	6
Single or double Angle Iron on Upper edge						
Average space	<u>40</u>					
BEAMS , Main or Middle Deck						
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron, on Upper Edge						
Average space	<u>40</u>					
BEAMS , Lower Deck, Hold or Orlop						
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge						
Average space	<u>40</u>					
KEELSONS Centre line, single or double plate, hot, or intercostal plates	8 1/2		7	8 1/2		7
" Rider Plate	6 1/2		7	6 1/2		7
" Bulb Plate to Intercostal Keelson						
" Angle Irons	3	3	6	3	3	6
" Double Angle Iron Side Keelson						
" Side Intercostal Plate						
" do. Angle Irons						
" Attached to outside plating with angle iron						
HIGH Angle Irons						
" do. Bulb Iron						
" do. Intercostal plates riveted to plating for length						
LOW Angle Irons	3	3	6	3	3	6
" do. Intercostal plates riveted to plating for length						
WIDE Angle Irons	3	3	6	3	3	6
" do. Intercostal plates riveted to plating for length						
Transoms, material. Knight-heads. Hawse Timbers.	<u>Plate Single Iron</u>					
Windlass	<u>Iron</u>					
Pull Bitt	<u>Iron</u>					

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths. required
Flat Keel Plates , breadth and thickness				
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	7	30	7
fm up. part of Bilge to l. edge of Sh'rstrake	30 1/2	3 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 Deck Strake, breadth & thickness				
Butt Straps to outside plating, breadth & thickness	8 1/2	3 1/2	8 1/2	3 1/2
Lengths of Plating	<u>10 feet</u>			
Shifts of Plating, and Stringers	40		40	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	25	6	23	6
Angle Iron on ditto	2 1/2	6	3 x 3	6
Tie Plates fore and aft, outside Hatchways	7	6	7	6
Diagonal Tie Plates on Beams, No. of Pairs				
Block-steel material and scantling				
Waterways	<u>4 in</u>			
Flat of Upper Deck do. do.				
How fastened to Beams	<u>3 in</u> <u>2 in</u> <u>3 in</u> <u>3 in</u>			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>			
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Waterways material and scantling				
Flat of Middle Deck do. 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?	<u>Yes</u>			
Angle Irons on ditto, No.				
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material in hold	2		2	
Main piece of Rudder, diameter at head do. at heel	3 1/2		3 1/2	
Can the Rudder be unshipped afloat?	<u>Yes</u>			
Bulkheads No. 3 Thickness of				
Height up to Upper Deck Beams	<u>4 1/2</u>			
How secured to sides of ship	<u>Between Double Frames</u>			
Size of Vertical Angle Irons and distance apart	<u>2 1/2 x 2 1/2 x 7/16</u> and distance apart <u>30</u> ins.			
Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>			

The **FRAMES** extend in one length from tree to gunwale 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 gunwale 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 1/2 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 10/16 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 length amidships.

Butts of Main Stringer Plate, double riveted for whole length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 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 Plates No. of Breasthooks, Two Crutches, ✓

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Hopton's & Co. Middlesbrough

Manufacturer's name or trade mark, _____

The above is a correct description.

Builder's Signature, Day Summers & Co^{rs} Surveyor's Signature, Edw. Lloyd

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., each fraction explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, made 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	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Lgh. & Size req'd pr Rule	Test req'd per Rule.	Ordinary		Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
								ANCHORS, &c.	N ^o .			
	Fore Sails,	Chain ...	12.4	3/4	10 1/2			Bowers ...	1	2,300	5,500	0.0
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)						Stream ...	1	3,000	5,100	0.0
	Fore Topmast Stay Sails	Hmpn Strm Cbl						Kedges ...	1	1,200		
	Main Sails,	Hawser ...	90	4								
	Main Top Sails,	Towlines ...	90	6								
	and	Warp ...										
		quality <u>Good</u>										

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 Coaming with screw bolts
 What arrangements for deadlights in bad weather? Good deadlights and flattened down with tarpaulin same as skylights
 Coal Bunker Openings.—How constructed? Cast iron frame How are lids secured? Stop stud 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 by 8 feet
 If of extraordinary size, state how framed and secured? None
 What arrangement for shifting beams? None, Skylights and Companions strong & efficient
 Hatches, if strong and efficient? None, Skylights and Companions strong & efficient

Order for Special Survey No. _____ Date _____
 Order for Ordinary Survey No. _____ Date 5 Aug 1875
 No. 28 in builder's yard. DATES of Surveys held while building as per Section 18. At various times while building

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 respects 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 butts 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 90A For Towing Purposes
 The amount of the Entry Fee ... £ 2 : 0 : 0 is received by me, Edw Elliott
 Special ... £ 5 : 5 : 0 1876
 Certificate ... required 26 October
 (Travelling Expenses) (if any) £ None
 Committee's Minute 3rd November 1876
 Character assigned 90A
For Towing purposes only.