

IRON SHIP.

Rev 36/1/73

No. 3184 Survey held at Hartlepool Date, First Survey 31st July 1872 Last Survey 2nd Aug 1873
On the S.S. Steamer "Thames" Yard Number 34 Master M. Armstrong

TONNAGE under Deck 1020
Ditto of Third Spar, or Awning-Deck 496.48
Ditto of Poop, or Raised Cr. Dk. 10.53
Ditto of Houses on Deck 10.53
Ditto of Forecastle 1527.01
Gross Tonnage 1527.01
Less Crew Space 65.98
Less Engine Room 488.64
Register Tonnage as cut on Beam 972.39

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING-DECKED VESSEL.
HALF BREADTH (moulded) 16.5 1/2
DEPTH from upper part of Keel to top of Upper Deck Beams 18.6 1/2
GIRTH of Half Midship Frame (as per Rule) 31
1st NUMBER 66
1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet 248-8
LENGTH 164.11
2nd NUMBER 164.11
PROPORTIONS Breadths to Length within
Depths to Length—Upper Deck to Keel 14
Main Deck ditto 14

Built at Hartlepool
When built 1872 Launched 16th Dec 1872
By whom built Wm. Alexander & Co.
German Ropps Steam Navigation Company
Owners Rossmore & Co.
Port belonging to Hamburg
Destined Voyage Hamburg & South America
If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 248 **BREADTH** Moulded 32 **DEPTH** top of Floors to Upper Deck Beams 24 **Power of Engines** 150 **No. of Decks with flat laid** Two
Do. do. Main Deck Beams 14 **No. of Tiers of Beams** Three

Dimensions of Ship per Register, length, 250-3 breadth, 33 depth, 23-9

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	16ths required
KEEL , depth and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	16ths required
STEM , moulding and thickness	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	16ths required
STERN-POST for Rudder do. do.	8 x 5	8 x 5	8 x 5	8 x 5	16ths required
for Propeller	8 x 5	8 x 5	8 x 5	8 x 5	16ths required
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23	23	23	16ths required
FRAMES , Angle Iron, for 3/4 length amidships	4 x 3	4 x 3	4 x 3	4 x 3	16ths required
Do. for 1/2 at each end	4 x 3	4 x 3	4 x 3	4 x 3	16ths required
REVERSED FRAMES , Angle Iron	3 x 3	3 x 3	3 x 3	3 x 3	16ths required
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	18 1/2 x 7/16	18 1/2 x 7/16	18 1/2 x 7/16	18 1/2 x 7/16	16ths required
thickness at the ends of vessel	18 1/2 x 7/16	18 1/2 x 7/16	18 1/2 x 7/16	18 1/2 x 7/16	16ths required
depth at 3/4 the half-bdth. as per Rule	16 3/4 x 7/16	16 3/4 x 7/16	16 3/4 x 7/16	16 3/4 x 7/16	16ths required
height extended at the Bilges	3 1/2	3 1/2	3 1/2	3 1/2	16ths required
BEAMS, Upper, Spar, or Awning Deck	6 1/2 x 6 1/6	6 1/2 x 6 1/6	6 1/2 x 6 1/6	6 1/2 x 6 1/6	16ths required
Single or double Ang. Iron, Plate or Tee Bulb Iron	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	16ths required
Single or double Angle Iron on Upper edge	4 1/2	4 1/2	4 1/2	4 1/2	16ths required
Average space	4 1/2	4 1/2	4 1/2	4 1/2	16ths required
BEAMS, Main or Middle Deck	8 x 8 1/6	8 x 8 1/6	8 x 8 1/6	8 x 8 1/6	16ths required
Single or double Ang. Iron, Plate or Tee Bulb Iron	3 x 3	3 x 3	3 x 3	3 x 3	16ths required
Single or double Angle Iron, on Upper Edge	4 1/2	4 1/2	4 1/2	4 1/2	16ths required
Average space	4 1/2	4 1/2	4 1/2	4 1/2	16ths required
BEAMS, Lower Deck, Hold or Orlop	8 x 8 1/6	8 x 8 1/6	8 x 8 1/6	8 x 8 1/6	16ths required
Single or double Ang. Iron, Plate or Tee Bulb Iron	3 x 3	3 x 3	3 x 3	3 x 3	16ths required
Single or double Angle Iron on Upper Edge	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	16ths required
Average space	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	16ths required
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	1 1/2 x 12 1/6	1 1/2 x 12 1/6	1 1/2 x 12 1/6	1 1/2 x 12 1/6	16ths required
" Rider Plate	8 x 9 1/6	8 x 9 1/6	8 x 9 1/6	8 x 9 1/6	16ths required
" Bulb Plate to Intercostal Keelson	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
" Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
" Double Angle Iron Side Keelson	2 3/4 x 8 1/6	2 3/4 x 8 1/6	2 3/4 x 8 1/6	2 3/4 x 8 1/6	16ths required
" Side Intercostal Plate	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
" do. Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
" Attached to outside plating with angle iron	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2	16ths required
BILGE Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
" do. Bulb Iron	8 x 18 1/6	8 x 18 1/6	8 x 18 1/6	8 x 18 1/6	16ths required
" do. Intercostal plates riveted to plating for length	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
BILGE STRINGER Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
Intercostal plates riveted to plating for length	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required
SIDE STRINGER Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	16ths required

	Inches in Ship	16ths in Ship	Inches required	16ths required
Flat Keel Plates, breadth and thickness	31	10 1/6	30	10 1/6
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	31	10 1/6	30	10 1/6
of doubling at Bilge, or increased thickness, and length applied	31	10 1/6	30	10 1/6
fin up, part of Bilge to Ir. edge of Sh'rstrake	31	10 1/6	30	10 1/6
Main Sheerstrake, breadth and thickness	30	13 1/6	30	13 1/6
of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake	34	7 1/6	30	7 1/6
Up. or Spar Dk Sh'rstrake, brdth & thickness	34	7 1/6	30	7 1/6
Butt Straps to outside plating, breadth & thickness	9 3/4 x 7/16	9 3/4 x 7/16	9 3/4 x 7/16	9 3/4 x 7/16
Lengths of Plating	46	46	46	46
Shifts of Plating, and Stringers	3 1/2	7 1/6	3 1/2	7 1/6
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	4 1/2	8 1/6	4 1/2	8 1/6
Angle Iron on ditto	11 1/4	7 1/6	11 1/2	7 1/6
Tie Plates fore and aft, outside Hatchways	11 1/2	7 1/6	11 1/2	7 1/6
Diagonal Tie Plates on Beams No. of Pairs, 4	11 1/2	7 1/6	11 1/2	7 1/6
Planksheer material and scantling	12 x 6 1/2	12 x 6 1/2	12 x 6 1/2	12 x 6 1/2
Waterways do. do.	3	4 1/6	3	4 1/6
Flat of Upper Deck do. do.	12 1/2	8 1/6	12 1/2	8 1/6
How fastened to Beams	12 1/2	8 1/6	12 1/2	8 1/6
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	4 1/2	9 1/6	3 1/2	9 1/6
Is the Stringer Plate attached to the outside plating?	Yes	3 1/2 x 9 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6
Angle Irons on ditto, No. 2	5	3 1/2 x 9 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6
Tie Plates, outside Hatchways	11 1/2	9 1/6	11 1/2	9 1/6
Diagonal Tie Plates on Beams, No. of pairs 3	11 1/2	9 1/6	11 1/2	9 1/6
Waterways materials and scantlings	6 1/2	10 1/6	3 1/2	10 1/6
Flat of Middle Deck do. do.	8 1/2	10 1/6	3 1/2	10 1/6
How fastened to Beams	8 1/2	10 1/6	3 1/2	10 1/6
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	3 1/2	8 1/6	30 1/2	8 1/6
Is the Stringer Plate attached to the outside plating?	Yes	4 x 4 x 8 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6
Angle Irons on ditto, No. 2	4 x 4 x 8 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6
Stringer or Tie Plates, outside Hatchways	4 x 4 x 8 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6	4 x 4 x 8 1/6
Flat of Lower Deck	2 1/2	10 1/6	2 1/2	10 1/6
Ceiling betwixt Decks, thickness and material	2 1/2	10 1/6	2 1/2	10 1/6
in hold do. do.	2 1/2	10 1/6	2 1/2	10 1/6
Main piece of Rudder, diameter at head	3 3/4	3 3/4	3 3/4	3 3/4
do. at heel	3	3	3	3
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. 4 Thickness of	6 1/2 x 5 1/6	6 1/2 x 5 1/6	6 1/2 x 5 1/6	6 1/2 x 5 1/6
Height up	Main Deck Fore end to upper Deck			
How secured to sides of ship	to Double frames			
Size of Vertical Angle Irons	8 x 3 x 6 1/6			
and distance apart	30 ins.			
Are the outside Plates doubled two spaces of Frames in length?	Yes			

Transoms, material. Knight-heads. Hawse Timbers. Plates
Windlass Hartlepool Pall Bitt

The **FRAMES** extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 in. apart.
The **REVERSED ANGLE IRONS** on floors and frames extend across middle line to above hold beams and to 6 in. above main 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 4 7/8 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 1/4 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.
Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1/6 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 1/4 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. **Upper Sheerstrake**, double or single riveted.
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted whole length amidships.
Butts of Main Stringer Plate, treble riveted for half length amidships. **Butts of Upper or Spar Stringer Plate**, treble riveted for whole length.
Breadth of laps of plating in double riveting 4 3/4 Breadth of laps of plating in single riveting 2 3/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & treble
Waterway, how secured to Beams Bolts & nuts (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Ends turned & pieces welded No. of Breasthooks, Five Crutches, Three
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good
Manufacturer's name or trade mark, Thos. M. & Co. Shearn, H. M. & Co.

The above is a correct description.
Builder's Signature, Wm. Alexander & Co. Surveyor's Signature, S. M. Gladstone

Workmanship. Are the butts of plating planed or otherwise fitted? Planed Iron 11027
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? Solid
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 in butts

Masts, Bowsprit, Yards, &c., are of Iron 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. Main Mast 70 ft. Diameter 20 in. Fore Mast 45 ft. Diameter 20 in.

NUMBER for EQUIPMENT 19892		Fathoms.	Inches.	Test per Certificate.	In. req'd per 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.
N ^o .	SAILS.	CABLES, &c.										
	Fore Sails,	Chain ...										
	Fore Top Sails,	(Machine where Tested, date, and name of Superintendent.)										
	Fore Topmast Stay Sails	Hempen Stream Cable										
	Main Sails,	Hawser ...										
	Main Top Sails,	Towlines ...										
	and	Warp quality										

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Two Long Boats and two others good
The Windlass is good Capstan 2 of Iron and Rudder good Pumps Three & good 7 inch

Engine Room Skylights. How constructed? 3 1/2 Test & 4 Plate Curved How secured in ordinary weather? Brass gratings

What arrangements for deadlights in bad weather? Wood deadlights

Coal Bunker Openings. How constructed? Iron coverings How are lids secured? Bars Height above deck? 9 inches

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Scuppers & open bulwarks

Cargo Hatchways. How formed? 7/16 Plate

State size Main Hatch 19x11 feet Forehatch 11x6 ft 0 in Quarterhatch 19x11 feet

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

What arrangement for shifting beams? 7/16 Plate in centre the whole depth of beams, Double angles on both edges

Hatches, If strong and efficient? good & efficient

Order for Special Survey No. 420 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Special Survey
Date 23 May 1873 Surveys held 2nd. On the plating during the progress of riveting Seen in all stages
Order for Ordinary Survey No. while building 3rd. When the beams were in and fastened, and before the decks were laid during building
Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented
No. 34 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, Iron main deck fitted over Engine & boiler space length 45 ft. 6/16 plate.
Is fitted with water ballast tanks in fore & after hold, frames cut, connection made with three plates. Side plates 7/16. Angles on S. 4x3x7/16. Web plates 6/16. Angles on S. 2 1/2x2 1/2x5/16.
Top plating 6/16.

This vessel broke her chain cables in launching & struck the Pier on the opposite side of the Harbour, breaking Propeller frame & Rudder, frame latter out repaired & replaced, Rudder new. Broken chain cable repaired & retested,

Wm. Alexander

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 Hot painted with Portland Cement Outside other parts with Paint

I am of opinion this Vessel should be Classed 90 A1

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

Special ... £ 61 : 10 : 6
Certificate ... : : :
(Travelling Expenses)
(if any) £

Committee's Minute 31st January 1873

Character assigned 90 A1

Spar decked
part double Bottom

A.C.P.
IBW

Lloyd's Register