

IRON SHIP. 13408

No. 12622 Survey held at South Shields Date, First Survey 30th April Last Survey 9th October 1874

On the I.S.S. Fore & Aft. S.S. "Black Watch" Yard Number 108 Master Wm Scott

TONNAGE under Deck	173.16
Below of Third, Spar, or Aft Deck	
Ditto of Prop. or Raised Or. Dk.	36.42
Ditto of Hold or on Deck	4.89
Ditto of Forecastle	2.78
Gross Tonnage	223.25
Less Gun Space	13.88
	209.37
Less Engine Room	71.44
Register Tonnage as cut on Beams	137.93

ONE, OR TWO DECKED, THREE DECKED VESSEL.	
SPAR, OR AWNING-DECKED VESSEL.	
HALF BREADTH (moulded)	9.9
DEPTH from upper part of Keel to top of Upper Deck Beams	10.11
GIRTH of Half Midship Frame (as per Rule)	18.3
1st NUMBER	38.9
1st NUMBER, if a THREE DECKED VESSEL deduct 7 feet	
LENGTH	124
2nd NUMBER	4823
PROPORTIONS—Breadths to Length	6.3
Depths to Length—Upper Deck to Keel	11.3
Main Deck ditto	

Built at South Shields
 When built 1874 Launched 12th August 74
 By whom built J. Readhead & Co
 Owners R. Thomson
 Port belonging to London
 Destined Voyage
 If Surveyed while Building, Afloat, or in Dry Dock.
While building

LENGTH on deck as per Rule	Feet. Inches.	BREADTH Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams	Feet. Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
124 0		19 6		9 11 1/2		20		One	One

Dimensions of Ship per Register, length, 125.3 breadth, 19.7 depth, 10.05

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	6 3/4 x 1 1/4	6 3/4 x 1 1/4
STEM, moulding and thickness	6 1/2 x 1 1/4	6 x 1 1/4
STERN-POST for Rudder do. do.	6 x 2 1/2	6 x 2 1/2
for Propeller	6 x 2 1/2	6 x 2 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21

(Class 90A)

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
FRAMES, Angle Iron, for 3/4 length amidships Do. for 1/2 at each end	3	2 1/2	5	5
REVERSED FRAMES, Angle Iron	3	2 1/2	4	4
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	1 1/2	5	5	5
thickness at the ends of vessel	6	4	4	4
depth at 3/4 the half-bdth. as per Rule	6	5 3/4	4	4
height extended at the Bilges	24	23		

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	4	4
Single or double Angle Iron on Upper edge	42	42		
Average space				

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
BEAMS, Main or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	4	4
Single or double Angle Iron, on Upper Edge	42	42		
Average space				

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
BEAMS, Lower Deck, Hold or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron	5	3	4	4
Single or double Angle Iron on Upper Edge	42	42		
Average space				

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	9	4	4	4
Rider Plate	7	6	6	6
Bulb Plate to intercostal Keelson	7	6	6	6
Angle Irons	3	3	6	6
Double Angle Iron Side Keelson	3	3	6	6
Side intercostal Plate	3	3	6	6
do. Angle Irons	3	3	6	6
Attached to outside plating with angle iron	3	3	6	6

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
BILGE Angle Irons	5	3	6	6
do. Bulb Iron	5	3	6	6
do. Intercostal plates riveted to plating for length	5	3	6	6

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
BILGE STRINGER Angle Irons	5	3	6	6
Intercostal plates riveted to plating for length	5	3	6	6

	Inches. In Ship.	Inches. In Ship.	16ths. required	16ths. required
SIDE STRINGER Angle Irons	3	3	6	6

Transoms, material. Knight-heads. Hawse Timbers. Iron

Windlass English Oak Pall Bitt Eng. Oak

The FRAMES extend in one length from Keel to Gunwale

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Side Stringer Angle Iron 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 7/8 in. diameter, averaging 4 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 5/8 in. diameter, averaging 2 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 5/8 in. diameter averaging 2 1/8 ins. from centre to centre.

Butts of one Strake at Bilge for half length, double riveted with Butt Straps 7/8 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 5/8 in. diameter, averaging 2 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 5/8 in. diameter, averaging 2 1/8 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 3 1/4 Breadth of laps of plating in single riveting 2 1/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double riveted

Waterway, how secured to Beams Iron Gutter (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Knee plates riveted to Beams and No. of Breasthooks, Four Crutches, Three

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles from S. Witham Works, and Plates Stockton Malleable Iron Co. J. Richardson Works

Manufacturer's name or trade mark, Wm. Hartlepool, & Bowesfield Iron Co Stockton

The above is a correct description.

Builder's Signature, J. Readhead Surveyor's Signature, J. H. Cooke

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths. required
Flat Keel Plates, breadth and thickness	30	6	30	6
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of <u>one</u> Strake at Bilge, of increased thickness, and length applied <u>1/2</u> length fm up. part of Bilge to l. edge of Sh'rstrake.	30	5	30	5
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	30	5	30	5
Up. or Spar Dk. Sh'rstrake, breadth & thickness	30	5	30	5
Butt Straps to outside plating, breadth & thickness	56 9/16	5-6 9	56 9/16	5-6 9
Lengths of Plating	10 1/2	6 1/2	8 1/2	9 1/2
Shifts of Plating, and Stringers	42		42	
Gunwale Plate on ends of <u>Awning, Spar, or</u> Upper Deck Beams, breadth and thickness	25	6	25	6
Angle Iron on ditto	3 x 3 x 6		3 x 3 x 6	
Tie Plates fore and aft, outside Hatchways	6	6	6	6
Diagonal Tie Plates on Beams No. of Pairs, Plank-sheer material and scantling				
Waterways do. do.	Iron Gutter			
Flat of Upper Deck do. do. <u>Yellow Pine</u>	3		3	
How fastened to Beams	Screw bolts & nuts.			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?				
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. 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 between Decks, thickness and material				
in hold do. <u>Baltic Pine</u> do.	2 1/4		2	
Main piece of Rudder, diameter at head	3 1/2		3 1/2	
do. at heel	2		2	
Can the Rudder be unshipped afloat? <u>Yes</u>				
Bulkheads No. <u>4</u> Thickness of		4		4
Height up <u>three</u> to <u>upper deck</u> after one to Cabin sole with iron deck?				
How secured to sides of ship <u>Double frames & brackets</u>				
Size of Vertical Angle Irons <u>2 1/2 x 5 1/8</u> and distance apart <u>30</u> ins.				
Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>				

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? Solid 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? A few

Masts, Bowsprit, Yards, &c., are Pitch 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

13408 2m

NUMBER for EQUIPMENT 5305

No.	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.
	Fore Sails,	Chain ...	<u>135</u>	<u>1 3/16</u>	<u>12.0.0.0</u>	<u>135-1 3/16</u>	<u>11 1/20</u>	Bowers ...	<u>1</u>	<u>5.0.14</u>	<u>7.9.2.21</u>	<u>5.0.0</u>	<u>7 1/20</u>
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	<u>Breaking Strain 18.0.0.0</u>					(State Machine where Tested, Date, and name of Superintendent.)	<u>1</u>	<u>5.0.4</u>	<u>7.9.2.21</u>	<u>5.0.0</u>	<u>7 1/20</u>
	Fore Topmast Stay Sails	Hmpn Strm Cbl											
	Main Sails,	Hawser ...	<u>90</u>	<u>6</u>		<u>90-6</u>		Stream ...	<u>1</u>	<u>1.3.4</u>		<u>1.3.0</u>	
	Main Top Sails,	Towlines ...	<u>90</u>	<u>4</u>		<u>90-4</u>		Kedges ...	<u>1</u>	<u>1.1.0</u>		<u>1.0.0</u>	
		Warp ...	<u>70</u>	<u>3 1/2</u>									
		quality <u>good</u>											

Standing and Running Rigging Hemp sufficient in size and good in quality. She has Med Life Long Boat and Skiff

The Windlass is Good Capstan Good and Rudder Good Pumps Good

Engine Room Skylights.—How constructed? Iron Comings & Wood Tops How secured in ordinary weather? Bolted to Angles

What arrangements for deadlights in bad weather? Solid Shutters & Bulls-eyes

Coal Bunker Openings.—How constructed? Cast Pipes How are lids secured? By Studs Height above deck? 4 1/2

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Two Ports each side besides mooring pipes to main deck, Quarter deck flush.

Cargo Hatchways.—How formed? Iron Comings and headledges.

State size Main Hatch 16 feet x 8 feet Forehatch Good Quarterhatch 7 feet x 7 feet

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

What arrangement for shifting beams? Shifting beam and wood Fore & after.

Hatches, If strong and efficient? Yes.

Order for Special Survey No. <u>10208</u>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<u>12 built under Special Survey</u>
Date <u>10 March 1874</u>	2nd. On the plating during the process of riveting	<u>1074 April 30. May 5. 8. 12. 14. 18.</u>
Order for Ordinary Survey No. <u>—</u>	3rd. When the beams were in and fastened, and before the decks were laid...	<u>21. 30. June 4. 8. 12. 15. 19. 22. 30. July</u>
Date <u>—</u>	4th. When the ship was complete, and before the plating was finally coated or cemented...	<u>7. 10. 15. 18. 24. 28. Aug 1. 6. 11. 15. 18. 20.</u>
No. <u>108</u> in builder's yard.	5th. After the ship was launched and equipped	<u>Oct 9.</u>

General Remarks,

This is a one decked vessel built in accordance with approved section attached; she has a raised quarter deck 62 feet; bridge house 7 feet and foregallop forecastle 19 ft 6 in length. The main deck stringer plate extends seven frame spaces abaft the break bulkhead and the raised quarter deck stringer plate four frame spaces before the break bulkhead each upon brackets and attached to the outside plating; the sheerstrake is doubled at the break for a length of 19 ft 9 in and a double angle iron stringer 5 x 3 x 5/16 is also fitted under raised quarter deck, extending from aft to the fourth frame before the break bulkhead. The general quality of the workmanship is equal to the class recommended for.

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

How are the surfaces preserved from oxidation? Inside Cement & Paint

Outside Paint

I am of opinion this Vessel should be Classed 90A1

The amount of the Entry Fee ... £ 3 : : : is received by me,

Special Certificate ... £ 10 : 9 : : 28 Oct 1874

on 269 Jan Certificate ... : : : : : P. Young

(Travelling Expenses)

(if any) £ 4.0.0

Committee's Minute, 30th October 1874

Character assigned

90A

Mc. 74

J. H. Cooke

This vessel appears eligible to be classed 90A as recommended.

Lloyd's Register
1.2M
R.A.D. 62 ft
B.B. 78 ft
F. 19 1/2 ft
29/10/74