

IRON SHIP.

Rev 4/5/96 27/5/94

1245 Survey held at Newcastle-on-Tyne Date, First Survey Oct^r 14th 1873 Last Survey 29th April 1874

The S. S. "Elphinstone" Yard Number 302 Master W. Cassop

NAME under 1770.69 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Deck 1770.69 SPAR, OR AWNING-DECKED VESSEL.
 of Third, Spar, 1770.69
 of House, 3.80
 of Poop, or 1.27
 of Or. Dk. 1775.76
 of House, 61.75
 of Deck, 1714.01
 of Forecastle 568.24
 of Stern 1145.77
 Tonnage 1775.76
 of Space 61.75
 of Room 568.24
 Tonnage 1145.77
 on Beam

Built at Newcastle-on-Tyne
 When built 1874 Launched March 23rd 1874
 By whom built Palmer Shipbuilding and Iron Co. Ltd.
 Owners Hutchinson & McArthur
 Port belonging to Newcastle
 Destined Voyage Montreal
 If Surveyed while Building, Afloat, or in Dry Dock.
While Building

Feet. Inches. BREADTH—
 Moulded... 33 0
 Feet. Inches. DEPTH top of Floors to Upper
 Deck Beams... 25 0
 Do. do. Main Deck Beams... 18 0
 Power of Engines... 140
 Horse. No. of Decks with flat laid TWO
 No. of Tiers of Beams THREE

Dimensions of Ship per Register, length, 280.5 breadth, 33.5 depth, 24.9

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
depth and thickness	9 1/2 x 2 1/2	9 1/2 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 5	9 x 5	24	24
moulding and thickness	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 5	9 x 5	24	24
POST for Rudder do. do.	9 x 5	9 x 5	9 x 5	9 x 5	9 x 5	9 x 5	24	24
for Propeller	9 x 5	9 x 5	9 x 5	9 x 5	9 x 5	9 x 5	24	24
of Frames from moulding edge to	24	24	24	24	24	24	24	24
ding edge, all fore and aft	24	24	24	24	24	24	24	24
ES, Angle Iron, for 3/4 length amidships	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3
for 1/2 at each end	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3	4 1/2 x 3
RS, depth and thickness of Floor Plate	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16
id line for half length amidships	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16
thickness at the ends of vessel	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16
depth at 3/4 the half-bdth. as per Rule	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16
height extended at the Bilges	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16	23 1/2 x 9/16
S, Upper, Spar, or Awning Deck	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16
or d'ble Ang. Iron, Plate or Tee Bulb Iron	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16	6 1/2 x 4/16
or double Angle Iron on Upper edge	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16	2 1/2 x 2 1/2 x 5/16
age space...	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet
S, Main or Middle Deck	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16
or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16
or double Angle Iron, on Upper Edge	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16
age space...	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet	4 feet
IS, Lower Deck, Hold or Orlop	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16
or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16	8 x 8/16
or double Angle Iron on Upper Edge	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16	3 x 3 x 4/16
age space...	14 x 16 feet	14 x 16 feet	14 x 16 feet	14 x 16 feet	14 x 16 feet	14 x 16 feet	14 x 16 feet	14 x 16 feet
LSONS Centre line, single or double plate,	32 x 8/16	32 x 8/16	32 x 8/16	32 x 8/16	32 x 8/16	32 x 8/16	32 x 8/16	32 x 8/16
box, or Intercoastal, Plates	10 x 8/16	10 x 8/16	10 x 8/16	10 x 8/16	10 x 8/16	10 x 8/16	10 x 8/16	10 x 8/16
Rider Plate	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Bulb Plate to Intercoastal Keelson	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Angle Irons	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Double Angle Iron Side Keelson	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Side Intercoastal Plate	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
do. Angle Irons	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Attached to outside plating with angle iron	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
E Angle Irons	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
do. Bulb Iron	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
do. Intercoastal plates riveted to	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
plating for	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
STRINGER Angle Irons	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
Intercoastal plates riveted to plating for	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
3/5 length.	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16
STRINGER Angle Irons	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16	5 1/2 x 4 x 9/16

as, material. Knight-heads. Hawse Timbers. Iron plates angle.
Patent Iron Pall Bitt Iron

IES extend in THREE length from gunwale to gunwale Riveted through plates with 3/8 in. Rivets, about 6 apart.
 ERSED ANGLE IRONS on floors and frames extend across middle line to above main deck stringer and to gunwale alternately

NS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? yes

G. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5/2 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 Shoa Strakes at Bilge for baef length, treble riveted with Butt Straps 1/16 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 baef length amidships. Butts of Upper or Spar Sheerstrake, treble riveted baef length amidships.

Butts of Main Stringer Plate, treble riveted for baef length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for baef length.

Breadth of laps of plating in double riveting 4 1/2 - 5 Breadth of laps of plating in single riveting 4 1/2 - 5

Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double and treble as per rule

way, how secured to Beams Gutter (Explain by Sketch, if necessary.)
 of the various Decks, how secured to the sides? Riveted to frames No. of Breasthooks, 5 Crutches, 3
 description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates and angles
 eturer's name or trade mark, Palmer Shipbuilding and Iron Co. Ltd.
 he above is a correct description.
 r's Signature, Wm. T. Wilson Surveyor's Signature, James R. Jones

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed & rasped*
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? *Very few in Butts only.* 12645. Iron

Masts, Bowsprit, Yards, &c., are *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 *Iron Lower Masts, formed of two plates in the*
from 6/16" to 5/16" thick. Single riveted edges. Double riveted butts. two stiffening bars of 1 1/2".
Main Mast 76 ft. and Fore Mast 62 ft in length.

NUMBER for EQUIPMENT 23048		Fathoms.	Inches.	Test per Certificate.	Length & 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 per
N ^o .	SAILS.	CABLES, &c.		Chain		Bowers		(State Machine where Tested, Date, and name of Superintendent.)				
	Fore Sails,	Fore Top Sails,		Fore Topmast Stay Sails		Main Sails,		Main Top Sails,				
		Hmpn Strm Cbl		Hawser		Towlines		Warp				
		quality <i>Good</i>										

Standing and Running Rigging *Wire & hemp* sufficient in size and *Good* in quality. She has *one* Life Boat and *three* other.
The Windlass is *New* Capstan *New* and Rudder *New* Pumps *Good and efficient*
Engine Room Skylights. How constructed? *of Iron. Leak Skylights.* How secured in ordinary weather? *by bars*
What arrangements for deadlights in bad weather? *Thick glass bulwages*
Coal Bunker Openings. How constructed? *of Iron* How are lids secured? *Slot* Height above deck? *Flush*
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *Ports & Scuppers cut in Bulwar*

Cargo Hatchways. How formed? *of Iron*
State size *Main Hatch 20-6 x 9-0* Forehatch *15-6 x 7-6* Quarterhatch *13-6 x 7-6*
If of extraordinary size, state how framed and secured? *Main Hatch divided into two spaces by deep headlidge*
What arrangement for shifting beams? *Shifting beam in each hatch*
Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>990</i>	DATES of Surveys held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>Built under Special Survey</i>
Date <i>24 Oct. 1873</i>		2nd. On the plating during the process of riveting	<i>1873 Oct. 14, 21, 28, Nov. 7, 14, 19, 25.</i>
Order for Ordinary Survey No. <i>—</i>		3rd. When the beams were in and fastened, and before the decks were laid...	<i>Dec. 2, 4, 11, 17, 19, 26, 1874 Jan 6, 8, 1</i>
Date <i>—</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>19, 22, 28, Feb 2, 6, 10, 12, 19, 20, 23, 25.</i>
No. <i>302</i> in builder's yard.		5th. After the ship was launched and equipped	<i>March 5, 10, 12, 16, 17, 24, 27, April 1, 12, 16, 17, 20, 29.</i>

General Remarks,
She is fitted with a double Bottom in fore and after holds and in Engine Room (two spaces excepted) of the united lengths of 176 feet side plates 7/16" top plating 5/16" thick.
With the exception of a few minor alterations, as to length and depth in this vessel - she is similar in general construction & scant to the S.S. "JOHN DAVID" Report No. 12410.
This vessel is well built and nothing in my opinion. of the class as recommended below.

State if one, two or three-decked vessel, or if spar or awning decked, and lengths of poop, fore-castle or raised quarter deck, or of double or part double bottom.
How are the surfaces preserved from oxidation? Inside *Cement in Bottoms Paint above* Outside *Tarred*.
I am of opinion this Vessel should be Classed *90 A 1. THREE DECKED. PT DOUBLE BOTTOM.*
The amount of the Entry Fee £ *5* : : : is received by me,
Special Certificate £ *67* : *17* : : *2 May 1874*
(Travelling Expenses) (if any) £ *—*
Committee's Minute *12 May 1874*
Character assigned *90 A 1*
over Three Decks
No. C.
J. Moverly
This vessel appears to be eligible to be classed as a 90 A 1. 7th
Lloyd's Register Foundation