

## IRON SHIP.

No. 464 Survey held at Dunbarton Date, First Survey July 16 1877 Last Survey 2<sup>nd</sup> May 1878 1878On the Sr Sr ManoraMaster CoxenONNAGE under Tonnage Deck 3166.20 ONE, OR TWO DECKED, THREE DECKED VESSEL.

Ditto of Third, Spar, or Awning Deck.

Ditto of Hoop, or Raised Or Deck.

Ditto of Forecastle.

Gross Tonnage 3242.0Less Crew Space 84.45for fees 3166.20Less Engine Room 1037.44Register Tonnage 2120.11

as out on Beam

HALF BREADTH (moulded) 19DEPTH from upper part of Keel to top of Upper Deck Beam 31.6GIRTH of Half Midship Frame (as per Rule) 461st NUMBER 96.61st NUMBER, if a THREE-DECKED VESSEL 7LENGTH 370.22nd NUMBER 33086.72PROPORTIONS—Breathths to Length 9.95Depths to Length—Upper Deck to Keel 11.96Main Deck ditto 15.69Built at DunbartonWhen built 1878 Launched 22 MarchBy whom built Wm Denny & CoOwners D Macneil 110A Wallingford St GlasgowPort belonging to Landed GlasgowDestined Voyage Ind.

If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 370.2 BREADTH Moulded 30 DEPTH top of Floors to Upper Deck Beams 29.4 Power of Engines 16 Horse. 16 N<sup>o</sup>. of Decks with flat laid 3 N<sup>o</sup>. of Tiers of Beams 3Dimensions of Ship per Register, length, 370.2 breadth, 30.45 depth, 29.15KEEL, depth and thickness 11x3 PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges 36 13 36 13STEM, moulding and thickness 11x3 of doubling at Bilge, or increased thickness, and length applied 12 12STERN-POST for Rudder do. do. 11x6 fin up. part of Bilge to Ir. edge of Sh'rstrake 12 12for Propeller 11x6 Main Sheerstrake, breadth and thickness 46 14 46 14Distance of Frames from moulding edge to moulding edge, all fore and aft 24 of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. as approvedFRAMES, Angle Iron, for  $\frac{3}{4}$  length amidships 5 3 5 3 Up. or Spar Dk Sh'rstrake, breadth & thickness 19 9 15 9 19 9 15 9Do. for  $\frac{1}{2}$  at each end 5 3 5 3 Lengths of Plating 60 framesREVERSED FRAMES, Angle Iron 3 3 3 3 Shifts of Plating, and Stringers 12FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 25 11 25 11thickness at the ends of vessel 13 4 13 4depth at  $\frac{3}{4}$  the half-bdth. as per Rule 37 51height extended at the Bilges 37 51BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 7 7 7 7Single or double Angle Iron on Upper edge 4 4 4 4Average space 4 4 4 4BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 9 9 9 9Single or double Angle Iron, on Upper Edge 3 3 3 3Average space 4 4 4 4BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 9 9 9 9Single or double Angle Iron on Upper Edge 3 3 3 3Average space 4 4 4 4KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates 20 14 20 14Rider Plate 14 14 14 14Bulb Plate to Intercoastal Keelson 6 4 9 6 4 9Angle Irons 6 4 9 6 4 9Double Angle Iron Side Keelson 6 4 9 6 4 9Side Intercoastal Plate 6 4 9 6 4 9do. Angle Irons 6 4 9 6 4 9Attached to outside plating with angle iron 3 3 3 3BILGE Angle Irons 6 4 9 6 4 9do. Bulb Iron 11 9 11 9do. Intercoastal plates riveted to plating for  $\frac{3}{4}$  length 10 16 10 16BILGE STRINGER Angle Irons 6 4 9 6 4 9Intercoastal plates riveted to plating for  $\frac{3}{4}$  length 10 16 10 16SIDE-STRINGER Angle Irons 6 4 9 6 4 9Transoms, material. Knight-heads. Hawse Timbers. Plating doubledWindlass Steam Iron Pal BittThe FRAMES extend in one length from Keel to Upper or Stringer Riveted through plates with 7 in. Rivets, about 6 apart.The REVERSED ANGLE IRONS on floors and frames extend from middle line to along main deck and to Deck Stringer alternatelyKEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? YesPLATING. Garboard, double riveted to Keel, with rivets 1 7 in. diameter, averaging 8 2 ins. from centre to centre.Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7 in. diameter, averaging 3 2 ins. from centre to centre.Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7 in. diameter averaging 3 4 ins. from centre to centre.Butts of 3 Strakes at Bilge for 2 length, treble riveted with Butt Straps 16 thicker than the plates they connect.Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7 in. diameter, averaging 3 2 ins. from cr. to cr.Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7 in. diameter, averaging 3 2 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  $\frac{1}{2}$  length amidships. Butts of Upper or Spar Sheerstrake, treble riveted  $\frac{1}{2}$  length amidships.Butts of Main Stringer Plate, treble riveted for  $\frac{1}{2}$  length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for  $\frac{1}{2}$  length.Breadth of laps of plating in double riveting 5 6 Breadth of laps of plating in single riveting 5 6Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part-treble the rest doubleWaterway, how secured to Beams Gutter waterway (Explain by Sketch, if necessary.)Beams of the various Decks, how secured to the sides? Forged braced knees No. of Breasthooks, 5 Crutches, 4What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Mosend ParkheadManufacturer's name or trade mark, Mosend Parkhead

The above is a correct description.

Builder's Signature, Wm Denny & Co Surveyor's Signature, Wm Denny & Co

Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 477-0500



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? *They do*  
Are the fillings between the ribs and plates solid single pieces? *Single pieces*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *They do*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *They are*  
Do any rivets break into or through the seams or butts of the plating? *A few at corners of butts*

20846 *Gun*

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

*Foremast 96' 9" x 27" 3 plates in section 7/8" thick butts part-belted riveted. The rest with the edges double riveted*  
*Mainmast 98.10 x 27 " " " "*  
*Mizzen 79.11 x 22 " " " "*  
*Foreyard 66' x 16 1/2" 2 plates in section 5/8" thick. butts part-belted riveted. The rest double riveted*  
*Landings single riveted*

*Brand of Iron Portland Cement*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.	
36534		150	1 1/2	107.2	300.276	107 7/8	Trilum Bowers	11500	41.1.13	56.14.2.0	40	35 1/2	
Chain		150	1 1/2	"	"	76 5/8	Trilum Bowers	11501	40.2.0	56.2.2.0	40	"	
N <sup>o</sup> .	SAILS.	CABLES, &c.		Chain		300 1/2		12485 dated 22 <sup>nd</sup> 23 <sup>rd</sup> Aug 1877		107 7/8		107 7/8	
omit	Fore Sails,	LPHN Nos 12402		12405 dated 22 <sup>nd</sup> 23 <sup>rd</sup> Aug 1877		107 7/8		107 7/8		107 7/8		107 7/8	
2	Fore Top Sails,	Certificate signed D. G. Lewis		30.0.0		107 7/8		107 7/8		107 7/8		107 7/8	
2	Fore Topmast Stay Sails	Hampden Strm Cbl		90		107 7/8		107 7/8		107 7/8		107 7/8	
2	Main Sails,	Hawser ...		LPHN No 13252 dated 20 <sup>th</sup> Oct 1877		107 7/8		107 7/8		107 7/8		107 7/8	
2	Main Top Sails,	Towlines ...		90		107 7/8		107 7/8		107 7/8		107 7/8	
and	and	Warp ...		0		107 7/8		107 7/8		107 7/8		107 7/8	
		quality good		7 and plus		107 7/8		107 7/8		107 7/8		107 7/8	

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* quality. She has *6* Long Boats and

The Windlass is *Iron* Capstan *Iron* Steam and Rudder *good* Pumps *good*

Engine Room Skylights.—How constructed? *Iron casings* How secured in ordinary weather? *by bolts*

What arrangements for deadlights in bad weather? *Grates and deadlights*

Coal Bunker Openings.—How constructed? *Iron upper deck* How are lids secured? *by slots* Height above deck? *flush*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers on each side*

*Open rail & stention bulwarks above sheestake*

Cargo Hatchways.—How formed? *Iron casings*

State size Main Hatch *20' x 12'* Forehatch *8' x 8'* Quarterhatch *11' x 8'*

If of extraordinary size, state how framed and secured? *Iron deck doubled with a tie plate ahead of hatchway*

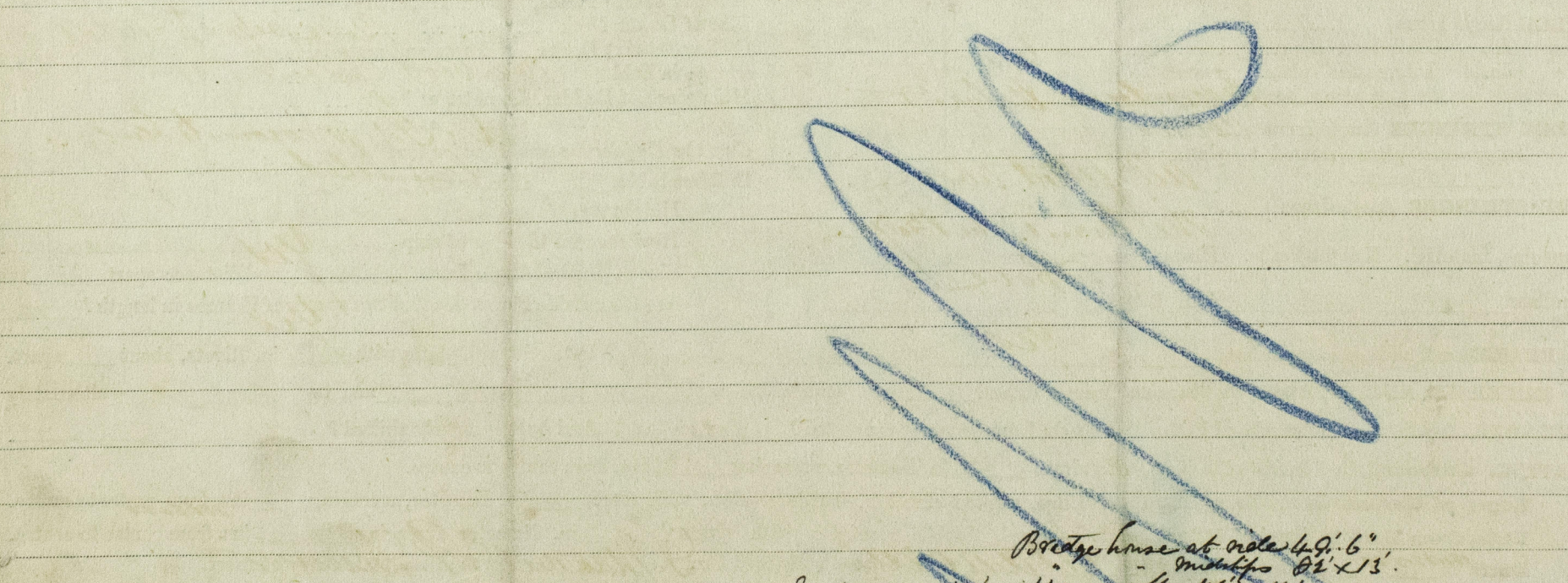
What arrangement for shifting beams? *2 bulk iron shifting beams and wood fore after at upper deck Wood shifting*

Hatches, If strong and efficient? *beam at main deck*

Order for Special Survey No. <i>1247</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1077 Feb 16. 20. Mar 16. 19. Apr 3. 5. 12. 16. 19. 23. 26
✓ Date <i>July 19/77</i>	2nd. On the plating during the process of riveting	May 2. 7. 10. 14. 17. 23. 31. June 5. 8. 12. 14. July 3. 9. 23. 26
Order for Ordinary Survey No. <i>1</i>	3rd. When the beams were in and fastened, and before the decks were laid...	Aug 2. 9. 13. 16. 20. 23. 27. Sept 3. 6. 17. 20. 26. Oct 1. 4. 12
Date <i>✓</i>	4th. When the ship was complete, and before the plating was finally coated or cemented...	10. 22. 29. Nov 1. 5. 8. 15. 26. 29. Dec 6. 19. 13. 19
No. <i>197</i> in builder's yard.	5th. After the ship was launched and equipped	1070 Jan 7. 10. 14. 17. 24. 28. 31. Feb 4. 11. 14. 18. 20. 25. 28. Mar 4. 7. 11. 18. 22. 25. 28. Apr 2. 5. 8. 11. 16. 23. 2

General Remarks (State quality of workmanship, &c.)

*The Workmanship is good. She is built in accordance with the appended Midship section and Plans*



State if one, two, or three, decked vessel, or if open, or running decked, and the lengths of *Monkey* fore-castle, or raised quarter deck, and the length of double, or part double bottom

How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *+ 100 A 1*

The amount of the Entry Fee ... £ 5 : : : is received by me, *Sh. 2d.*

*May 1878* Special ... £ 104 : 3 : : *May 1878*

Certificate ... *Printed*

(Travelling Expenses, if any, £ s. d.)

Committee's Minute *7th May 1878*

Character assigned *100 A 1*

*Lloyd's Register*

*Foundry*

*3 Decks Iron Deck*

*7/5/78*