

IRON SHIP.

No. 1452 Survey held at Glasgow
On the S. "Carradale"

Date, First Survey 4th Decr 1876 Last Survey 26th May 1877

Master McDermot

TONNAGE under
Tonnage Deck 1161.08
Ditto of Third Spar,
or Awning Deck 79.80
Ditto of Poop, or
Raised Or. Dk. 17.45
Ditto of Houses
on Deck 35.30
Ditto of Forecastle
Gross Tonnage 1293.63
Less Crew Space 51.30
Less Engine Room
Register Tonnage
as cut on Beam 1242.33

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING-DECKED VESSEL.
HALF BREADTH (moulded) 18.00
DEPTH from upper part of Keel to top of Upper Deck Beams 23.75
GIRTH of Half Midship Frame (as per Rule) 37.08
1st NUMBER 78.83
1st NUMBER, if a THREE-DECKED VESSEL
LENGTH 217
2nd NUMBER 17106
PROPORTIONS—Breadths to Length 6.02
Depth to Length Upper Deck to Keel
Main Deck ditto 9.13

Built at Glasgow
When built 1877 Launched 28th April 1877
By whom built Dobie & Co.
Owners Stuart Manford
Port belonging to Glasgow
Destined Voyage Bombay
Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 217 Feet. Inches. BREADTH Moulded 36 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 21.9 Feet. Inches. Power of Engines — Horse. No. of Decks with flat laid Two No. of Tiers of Beams Two

Dimensions of Ship per Register, length, 227.3 breadth, 36.2 depth, 21.35

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	9 x 2 1/2	9 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	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	8 1/2 x 2 1/2
STEM, moulding 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	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	8 1/2 x 2 1/2	8 1/2 x 2 1/2
STERN-POST for Rudder do. do.	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	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	8 1/2 x 2 1/2	8 1/2 x 2 1/2
for Propeller	24	24	24	24	24	24	24	24	24	24
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for 2/3 length amidships	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3
Do. for 1/3 at each end	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3	5 x 3
REVERSED FRAMES, Angle Iron	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10	24 x 10
thickness at the ends of vessel	12	12	12	12	12	12	12	12	12	12
depth at 2/3 the half-bdth. as per Rule	12	12	12	12	12	12	12	12	12	12
height extended at the Bilges	Twice	Twice	Twice	Twice	Twice	Twice	Twice	Twice	Twice	Twice
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	48	48	48	48	48	48	48	48	48	48
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron, on Upper Edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	48	48	48	48	48	48	48	48	48	48
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper Edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	48	48	48	48	48	48	48	48	48	48
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12
Rider Plate	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12	11 x 12
Bulb Plate to Intercoastal Keelson	—	—	—	—	—	—	—	—	—	—
Angle Irons	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4
Double Angle Iron Side Keelson	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4
Side Intercoastal Plate	—	—	—	—	—	—	—	—	—	—
do. Angle Irons	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3
Attached to outside plating with angle iron	—	—	—	—	—	—	—	—	—	—
BILGE Angle Irons	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4
do. Bulb Iron	—	—	—	—	—	—	—	—	—	—
do. Intercoastal plates riveted to plating for length	—	—	—	—	—	—	—	—	—	—
BILGE STRINGER Angle Irons	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4	5 x 4
Intercoastal plates riveted to plating for length	—	—	—	—	—	—	—	—	—	—
SIDE STRINGER Angle Irons	—	—	—	—	—	—	—	—	—	—

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

Windlass Harfield's Patent Pall Bitt

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Main Deck

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 1/2 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 4 ins. from centre to centre.

Butts of Three Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double riveted. Upper Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.

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

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double riveted

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

Beams of the various Decks, how secured to the sides? By knees turned down No. of Breasthooks, Six Crutches, Six

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best

Manufacturer's name or trade mark, Anglo and Bulbs "Crato" "Floors" "Parkhead"; Stringers & Keelson Plates "Bowiefield"; Shell plates "Consett" and "Glasgow" about half of each.

The above is a correct description.

Builder's Signature, Dobie & Co.

Surveyor's Signature, Saml. Saphorne

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

IRON 472-0059

Workmanship. Are the butts of plating planed or otherwise fitted? *Yes*
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? *A few*

1846 Iron

Masts, Bowsprit, Yards, &c., are *all* 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 *Three masts Ship Rigged*
Bowsprit - 21 feet out board, dia. at flange heads 28 ins, at cap 20 ins, secured to flange heads & top plating of Culwater, edges double riveted, bolts triple riveted. Three plates in circle.
"Glasgow" Mast { Fore Mast 78.3 - 28 - 21.22 1/2 - 19 1/2 } *Three plates in circle, Fore & Main Masts, 4 x 6 mizen*
Main Mast 80.0 - 28 - 21.22 1/2 - 19 1/2 } *double riveted edges, triple riveted butts, double at Partners about 7.0 long*
Mizen Mast 71.6 - 26 - 19 1/2 - 21 - 18 1/2 }
Lower Yards Fore & Main - 80 x 20 - 10 - 2 plates in circle 6 1/2 x 3 1/4 } *angle riveted edges triple riveted butts.*
Lower Yards Mizzen - 65 x 16 1/4 - 8 - 2 " " 5 1/2 x 3 1/4 }
Crossjack Yards 62 x 15 1/2 - 7 1/4 - 2 " " 4 1/2 x 3 1/4 }

NUMBER for EQUIPMENT 18246					Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test r per R
N ^o .	SAILS.	CABLES, &c.	271	1 ¹³ / ₁₆	59.2.2	270-1 ¹³ / ₁₆	59 1/8	Bowers	1	32.1.14	30.8.10.0	32	30		
	Fore Sails,	Chain	3 links out of 15 fathoms } 82.15.0												
	Fore Top Sails,														
	Fore Topmast Stay Sails														
	Main Sails,														
	Main Top Sails,														
		Hmpn Strm Cbl	90	1 ¹ / ₄	90-1" Iron or	90-10 Hemp									
		Hawser ...	90	11	90-9 1/2	90-6									
		Towlines ...	90	2											
		Warp ...	90	3											
		quality new	90	3 1/2											

Standing and Running Rigging *Wire & Hemp* sufficient in size and good in quality. She has *Three* ~~Boats~~ *Boats*
The Windlass is *Good* Capstan *3 Good* and Rudder *Good* Pumps *Wallaces, good & efficient*

Engine Room Skylights.—How constructed? — How secured in ordinary weather? —

Coal Bunker Openings.—How constructed? — How are lids secured? — Height above deck? —

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *4 Water Ports 4 scuppers and 2 mooring pipes each side*

Cargo Hatchways.—How formed? *Plate and angle iron*

State size Main Hatch *20 x 12* Forehatch *6 x 7* Quarterhatch *8 x 7*

If of extraordinary size, state how framed and secured? *a web plate and fore and aft ties doubled in width at Main Hatchway*

What arrangement for shifting beams? —

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>122</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>1876 - Decr 4, 6, 12, 16, 20, 28</i>
Date <i>Sept 21/76</i>		2nd. On the plating during the process of riveting	<i>1877 - Jan'y. 10, 11, 17, 23, 24, 31</i>
Order for Ordinary Survey No. <i>✓</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>Feb'y. 9, 16, 21, 23, 27, 28</i>
Date <i>✓</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>March 6, 8, 9, 13, 16, 20, 26</i>
No. <i>94</i> in builder's yard.		5th. After the ship was launched and equipped	<i>April 2, 8, 13, 17, 20, 24, 27</i> <i>May, 1, 7, 14, 21, 26th</i>

General Remarks (State quality of workmanship, &c.)
The Workmanship is of good quality— Built in accordance with approved sketches of Midship and longitudinal sections herewith and in general conformity with the Rules with a view to the grade contemplated.

Fitted with Poop 38 feet long, Forecastle 32 feet long and Midship House 29' x 13'

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecastle, 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, *25th Saml. Tappin*
Special ... £ 56 : 1 : : May 1877
Certificate ... *Printed*

(Travelling Expenses, if any, £ ...)
Committee's Minute *29th May, 1877.*

Character assigned *100 A 1*
Accepted D.P.H.
It is submitted that this vessel appears eligible to be classed 100 A 1 as recommended
2 decks
29/5/77