

IRON SHIP.

No. 3747 Survey held at Glasgow

Date, First Survey 14th Feb

Last Survey

On the S.S. Glenartney

Yard Number 170

Master John

TONNAGE under Deck 2064.76

ONE OR TWO DECKED, THREE DECKED VESSEL.

Built at Glasgow

Ditto of Third, Spar, or Awning Deck.

HALF BREADTH (moulded) 17.5

When built 1873 Launched

Ditto of Poop, or Raised Or. Dk.

DEPTH from upper part of Keel to top of Upper Deck Beams 26.7

By whom built London & Glasgow

Ditto of Houses on Deck

GIRTH of Main Midship Frame (as per Rule) 38.45

Engineering & Iron Shipbuilders

Ditto of Forecastle

1st NUMBER 82.65

Owners Alan C. Gow & Co.

Gross Tonnage 2106.53

deduct 7 feet 75.65

Port belonging to Glasgow

Less Crew Space 61.53

LENGTH 328.5

Destined Voyage Glasgow to China

For fees 2064.76

2nd NUMBER 24851

Surveyed while Building, Afloat, or in Dry Dock

Less Engine Room 674.09

PROPORTIONS—Breadths to Length over 9

Register Tonnage 1370.91

Depths to Length—Upper Deck to Keel 12.33

Main Deck ditto 17.10

LENGTH on deck as per Rule 328 Feet. Inches. 5 BREADTH—Moulded 35 Feet. Inches. 0 DEPTH top of Floors to Upper Deck Beams 24 9 1/2 Feet. Inches. 17 3 1/2 Power of Engines 320 Horse. N° of Decks with flat laid Two N° of Tiers of Beams Three

Dimensions of Ship per Register, length, 331.6 breadth, 35.35 depth, 24.7

	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	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4
STEM, moulding and thickness	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4	10 x 2 3/4
STERN-POST for Rudder do. do.	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2
for Propeller	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2	10 x 5 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for 1/2 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
Do. 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
REVERSED FRAMES, Angle Iron	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
FLOORS, depth and thickness of Floor Plate	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9	23 1/2 x 9
at mid line for half length amidships	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4
thickness at the ends of vessel	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4
depth at 1/2 the half-bdth. as per Rule	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4	11 3/4
height extended at the Bilges	Twice	Twice	Twice	Twice	Twice	Twice	Twice	Twice
BEAMS, Upper, Spar, or Awning Deck	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6	6 1/2 x 6
Single or Double Angle 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	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
Average space	48	48	48	48	48	48	48	48
BEAMS, Main or Middle Deck	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, Plate or Tee Bulb Iron	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
BEAMS, Lower Deck, Hold or Orlop	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, Plate or Tee Bulb Iron	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	24	24	24	24	24	24	24	24
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	19 x 13	19 x 13	19 x 13	19 x 13	19 x 13	19 x 13	19 x 13	19 x 13
Rider Plate	9 x 10	9 x 10	9 x 10	9 x 10	9 x 10	9 x 10	9 x 10	9 x 10
Plate to Intercoastal Keelson	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
Angle Irons	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
Double Angle Iron Side Keelson	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
Side Intercoastal Plate	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
do. Angle Irons	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
Attached to outside plating with angle iron	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2
BILGE Angle Irons	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
do. 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
do. Intercoastal plates riveted to plating for 1/2 length	9	9	9	9	9	9	9	9
BILGE STRINGER Angle Irons	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
Intercoastal plates riveted to plating for 3/5 length	9	9	9	9	9	9	9	9
SIDE STRINGER Angle Irons	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4

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

Windlass Napier'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 and to Upper Deck 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 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 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 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 or single 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 1/2 length amidships.

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

Breadth of laps of plating in double riveting 4 1/2 times Breadth of laps of plating in single riveting None

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted Yes

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, Seven Crutches, Four

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

Manufacturer's name or trade mark, Blochairn

The above is a correct description.

Builder's Signature, W. Kelly for the Harbour Glasgow Surveyor's Signature, Sam. Laphors

Engineering Iron Shipbuilders Glasgow

of plating planned or other fitted? *Yes*

and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes*

and plates solid single pieces? *Yes*

frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*

sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*

to or through the seams or butts of the plating? *A few*

12153 *Iron*

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

Fore and Aft Rigged with square sail forward
Iron Masts—Fore 81.3' x 26 dia
Main 79.2' x 26 "
Mizen 65.2' x 26 "

Tested by Robert Burrell
at Low Walker 4th & 5th Augt. 1873

Tested by Robert Burrell
at Low Walker 12th Augt 1873

NUMBER for EQUIPMENT *27150*

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain	300	1 13/16	59 2/3	270-1 13/16	59 2/3	Bowers	1	32.3.24	30 7/8	32	30 2/3
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	3 links in each 15 fathoms tested to breaking strain 82 2/3 tons					(State Machine where Tested, Date, and name of Superintendent.)	1	32.1.18	30 9/10	32	30 2/3
<i>One</i>	Fore Topmast Stay Sails	Chain	75	1 3/16		<i>see faths</i>			1	27.0.0	26 3/8	27.0.23	26 19/20
<i>Suit</i>	Main Sails,	Hmptn Strm Cbl	90	11		11-90		Stream	1	12.3.25	12-15.1.7	13	
	Main Top Sails,	Hawser	90	11		11-90		Kedges	1	6.1.27	7 1/16	6 1/2	
	and 5 Spane	Towlines	90	7		7-90			1	3.0.14	5	3 1/4	
		Warp											
		quality <i>good</i>											

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *Six* Long Boats *and* two with buoyancy

The Windlass is *Good* Capstan *good* and Rudder *good* Pumps *good and efficient*

Engine Room Skylights.—How constructed? *Plate & copper & steel* How secured in ordinary weather? *By Bars*

What arrangements for deadlights in bad weather? *Thick glass and wire guards*

Coal Bunker Openings.—How constructed? *Iron castings* 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? *Eight scuppers each side and gangways and pipes*

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

State size Main Hatch *16' x 10'* Forehatch *12' x 10'* Quarterhatch *12' x 10'*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *One portable Beam at Main Hatch*

Hatches.—If strong and efficient? *Yes*

Order for Special Survey No. *878*

Date *26th Decr. 1873*

Order for Ordinary Survey No. *—*

Date *—*

No. *170* in builder's yard.

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
- 2nd. On the plating during the process of riveting
- 3rd. When the beams were in and fastened, and before the decks were laid....
- 4th. When the ship was complete, and before the plating was finally coated or cemented..
- 5th. After the ship was launched and equipped

Feb^y. 14th March 4th 14th. 18th 19th 20th April 1st
apt. 2nd 11th 14th 15th 17th 24th 28th May 1st 6th 7th
May 12th 14th 21st 26th 27th June 2nd 6th 10th 12th
June 14th 19th 24th 30th July 3rd 7th 9th 11th 16th
July 29th Augt 6th 8th 13th 14th 19th 21st 26th 28th
Sept^r 2nd 4th 5th 9th 12th 26th Nov^r 5th 8th
Nov^r 27th Decr 4th 8th 1873.

General Remarks,

Has been built in accordance with the approved sketch of midship section herewith and in general conformity with the Rules— The greater portion of the upper Deck Beams is plated with iron and the Main Deck is an entire iron deck— The upper sheerstrake and strake next it are thicker than the Rules and their butt straps treble riveted for 3/5 length

A strong Beam is fitted at Hold stringer in Boiler space and a continuous angle iron 6x4x7/16 on inner edge of the hold beam stringer plate throughs Engine, Bunker and Boiler spaces with an additional one in Engine space as compensation for the omission of Hold Beams in Engine and Boiler spaces as per sketch approved herewith and Secretary's Letter of 14th May 1873

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 *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed ** 100 A1 Three decks*

The amount of the Entry Fee ... £ *5* : : : is received by me

Special ... £ *76.12.6* Decr 9th 1873

Certificate ... *Gratis*

(Travelling Expenses)

(if any) £ *—*

Committee's Minute *16th Decr 1873*

Character assigned

100 A1

A & R

M.C. 3 decks

Saml. Lanthorn

This ship appears

to be a

three decked

vessel

as recommended

Lloyd's Register
Foundation