

## IRON SHIP.

No. 5342 Survey held at Glasgow  
On the S. S. "Glenarvon"Date, First Survey 23<sup>rd</sup> April 1880 Last Survey 4<sup>th</sup> April

1881

Master A. Taylor

TONNAGE under Tonnage Deck	2696.33	ONE, OR TWO DECKED, THREE DECKED VESSEL.
Net Tonnage	97.56	SPAR, OR AWNING DECKED VESSEL.
Ditto of Poop, or Forecastle	132.56	HALF BREADTH (moulded) .. .. . 21.50
Ditto of Houses on Deck		DEPTH from upper part of Keel to top of Upper Deck Beams 28.08
Ditto of Forecastle	58.90	GIRTH of Half Midship Frame (as per Rule) .. 44.00
Gross Tonnage	2985.35	1st NUMBER .. .. . 93.58
Less Crew Space	94.39	1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet 86.58
Less Engine Room	2890.96	LENGTH .. .. . 358.16
Register Tonnage as out on Beam	1935.65	2nd NUMBER .. .. . 310.09
		PROPORTIONS—Breadths to Length .. .. . 8.32
		Depths to Length—Upper Deck to Keel .. .. . 12.76
		Main Deck ditto .. .. . 17.64

Built at Glasgow

When built 1880-81 Launched 16<sup>th</sup> Feb 1881By whom built The London & Glasgow Engineering and Shipbuilding Co. Limited  
Owners McGregor Gow & Co.

Port belonging to Glasgow

Destined Voyage China

If Surveyed while Building, Afloat, or in Dry Dock.  
Under Special Survey

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
358	2	43		24	6 1/2	530		Two	Three
Dimensions of Ship per Register, length, 360.4 breadth, 43.3 depth, 24.5									
KEEL, depth and thickness	11 x 1 1/4	11 x 1 1/4							
STEM, moulding and thickness	11 x 3	11 x 3							
STERN-POST for Rudder do. do.	11 x 6 1/2	11 x 6 1/2							
" for Propeller	11 x 6 1/2	11 x 6 1/2							
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24							
FRAMES, Angle Iron, for 3 length amidships	5 1/2 x 3 1/2	5 1/2 x 3 1/2	8	5 1/2 x 3 1/2	8				
Do. for 1 at each end	3 1/2 x 3 1/2	3 1/2 x 3 1/2	8	3 1/2 x 3 1/2	8				
REVERSED FRAMES, Angle Iron	3 1/2 x 3 1/2	3 1/2 x 3 1/2	8	3 1/2 x 3 1/2	8				
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	10 1/2 x 10	10 1/2 x 10	10	10 1/2 x 10	10				
thickness at the ends of vessel	4 x 3 1/2	4 x 3 1/2	8	4 x 3 1/2	8				
depth at 1/4 the half-bdth. as per Rule	48	48		48					
height extended at the Bilges	48	48		48					
BEAMS, Upper, Spar, or Awning Deck	9 x 9	9 x 9	9	9 x 9	9				
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	48	48		48					
Single or double Angle Iron on Upper edge	10 1/2 x 10	10 1/2 x 10	10	10 1/2 x 10	10				
Average space	4 x 3 1/2	4 x 3 1/2	8	4 x 3 1/2	8				
BEAMS, Main, or Middle Deck	10 1/2 x 10	10 1/2 x 10	10	10 1/2 x 10	10				
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	48	48		48					
Single, or double Angle Iron, on Upper Edge	10 1/2 x 10	10 1/2 x 10	10	10 1/2 x 10	10				
Average space	4 x 3 1/2	4 x 3 1/2	8	4 x 3 1/2	8				
BEAMS, Lower Deck, Hold, or Orlop	48	48		48					
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	10 1/2 x 10	10 1/2 x 10	10	10 1/2 x 10	10				
Single or double Angle Iron on Upper Edge	48	48		48					
Average space	4 x 3 1/2	4 x 3 1/2	8	4 x 3 1/2	8				
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	36 x 10	36 x 10	10	36 x 10	10				
" Rider Plate	36 x 10	36 x 10	10	36 x 10	10				
" Bulb Plate to Intercoastal Keelson	36 x 10	36 x 10	10	36 x 10	10				
" Angle Irons	36 x 10	36 x 10	10	36 x 10	10				
" Double Angle Iron Side Keelson	36 x 10	36 x 10	10	36 x 10	10				
" Side Intercoastal Plate	36 x 10	36 x 10	10	36 x 10	10				
" do. Angle Irons	36 x 10	36 x 10	10	36 x 10	10				
" Attached to outside plating with angle iron	36 x 10	36 x 10	10	36 x 10	10				
BILGE Angle Irons	36 x 10	36 x 10	10	36 x 10	10				
" do. Bulb Iron	36 x 10	36 x 10	10	36 x 10	10				
" do. Intercoastal plates riveted to plating for length	36 x 10	36 x 10	10	36 x 10	10				
BILGE STRINGER Angle Irons	36 x 10	36 x 10	10	36 x 10	10				
Intercoastal plates riveted to plating for length	36 x 10	36 x 10	10	36 x 10	10				
SIDE STRINGER Angle Irons	36 x 10	36 x 10	10	36 x 10	10				
Transoms, material. Knight-heads. Hawse Timbers.	Iron								
Windlass	Napier's Patent								

The FRAMES extend in one length from Keel to Gunwale  
The REVERSED ANGLE IRONS on floors and frames extend from middle line to upper deck on every frame and to upper deck alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes

PLATING. Garboard, double riveted to Keel, with rivets 1/8 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 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 3/4 ins. from centre to centre.

Butts of Outside Strakes at Bilge for 3 1/2 length, treble riveted with Butt Straps 1 1/2 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.

Edges of Main Sheerstrake, double riveted.

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

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

Breadth of laps of plating in double riveting 5 1/4

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

Waterway, how secured to Beams

Beams of the various Decks, how secured to the sides? By Knus turned down

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

Manufacturer's name or trade mark, Frames D. I. West Marsh, Stringer M. J. Coy., Beams and Keelsons Messrs. D. I. West Marsh, Stringer and Deck Plates B. V. Coy.

The above is a correct description.

Builder's Signature, Surveyor's Signature, Surveyor to Lloyd's Register of British and Foreign

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Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 5342 920  
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*

Masts, ~~Bowsprit~~, Yards, &c., are *all* in *good* condition, and sufficient in size and length. If of Iron or Steel give  
Scanlings 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 Barque Rigged*

*Iron, Glasgow B.B. Fore Mast 96.6 x 30-22-23-19 1/2* } *Four plates in circle*  
*Special for masts.* } *8 5/16*  
*Not to be tested.* } *Edges double, butts triple*  
*Main Mast 93.7 x 30-26-23-19 1/2* } *Three plates in circle*  
*Mizen Mast 82.1 x 24-21 1/2-19 1/2-16 1/2* } *6 5/16* } *riveted, doubled at*  
 } } *parties.*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Supplied.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Supplied.
SAILS.												
N <sup>o</sup> .	CABLES, &c.											
	Chain	300	2 1/16	76.10.0.0	300-2 1/16							
	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)			107.2.0.0								
Fore Sails,	Iron Str'm Chain	90	1 1/4	28.2.2.0	90-1 1/4							
Fore Top Sails,	Ditto do.	90	1 1/4	42.2.2.0								
Fore Topmast Stay Sails,	Hmpn Strm Cbl	90	5									
	Hawser ...	90	12		90-12							
Main Sails,	Towlines	90	12		90-12							
Main Top Sails,	Warp	270	8		90-8							
and	quality <i>New</i>	180	6									
		180	7									

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *Six* ~~Boats~~ *Boats* (2 as life boats)  
The Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *Good and efficient as per*  
*approved sketch.*

Engine Room Skylights—How constructed? *Teak framing on iron* How secured in ordinary weather? *By bars*  
*comings on top of house 7 ft above deck*

What arrangements for deadlights in bad weather? *Thick glass bars and paulines*

Coal Bunker Openings—How constructed? *Hatches framed* How are lids secured? *With hatch covers* Height above deck? *12 to 15*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *70 cuppers and water ports each*  
*side*

Cargo Hatchways.—How formed? *Plate and angle iron*  
State size *Main Hatch 20' x 12' 6"* Forehatch *12' x 11'* Quarterhatch *12' x 10' & 9' x 9'*

If of extraordinary size, state how framed and secured? *Two divisional web plates in large hatch*  
What arrangement for shifting beams?

Hatches, If strong and efficient? *Solid hatches, good*

Order for Special Survey No. <i>147</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	1880—April 23.28, May 4.10.18.21.26.27 June 2.5.9.14
Date <i>24<sup>th</sup> Feb. 1880</i>		2nd. On the plating during the process of riveting	June 15.16.17.23.30 July 2.6.9.12 Aug 4.9.10
Order for Ordinary Survey No. <i>217</i>		3rd. When the beams were in and fastened, and before the decks were laid....	Aug 14.18.19.23.25.27. Sept. 2.6.7.8.13.17
Date <i>1<sup>st</sup> Feb. 1880</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	Sept. 23.27.29. Oct. 1.7.8.12.18.20.22.27.30
No. <i>217</i> in builder's yard.		5th. After the ship was launched and equipped	Nov. 4.8.10.11.16.17.18.19.23.25.30 Dec. 2.8.15 Dec. 16.21.22.24.28.31—1881, Jan. 11.12.18.21.25.28.31 Feb. 3.7.10.14.16.25. March 12.21.30.31 April 1.2.14

General Remarks (State quality of workmanship, &c.) *The workmanship is of good quality, built in accordance with the approved sketches of midship and longitudinal sections which accompanied Report No 5277 on the S.S. Glenfruin with which this is a sister vessel and in general conformity with the Rules with a view to the grade contemplated*

*Fitted with Double Bottom on the longitudinal bracket system for 300 feet or whole length practicable; properly tested and found satisfactory—VVL—*  
*Forward compartment 114 feet long containing 147 tons*  
*No 2 'under Engine & Boilers' 92— " — " 168— "*  
*after compartment 94— " — " 105— "*  
*Total = 300 feet long containing 420 tons.*

*Fitted with Poop 49 feet long, Bridge 70 feet, Forecastle 50 feet, midship casing and Second class Cabin under bridge 64 x 14 and side houses 8 feet wide, Engine Casing 26 x 14, 7 ft above deck all of iron, Boiler and smoke hole casing 7 feet above bridge 36 x 14 of iron. Chart room and wheel house 25 x 12, Captains room of wood 17 x 12 between the two after hatches*

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 A1 Three Decked Rule Double Bottom*

The amount of the Entry Fee ... £ 5 : : : is received by me, *Saml Laphorn*  
Special ... £ 97 : 5 : 6 5<sup>th</sup> etpl. 1871 }  
Certificate ... : : : :  
Expenses, if any, £ : : : :  
Surveyor to Lloyd's Register of British and Foreign Shipping.

*See's Minute* Tuesday April, 12<sup>th</sup> 1881.  
*Assigned* *100 A1*  
*2 1/2 tons 2 1/2 tons 3 1/2 tons*  
*Lloyd's Register Foundation*