

IRON SHIPS.

Rec 28/7/64
1864

No. 3172 Survey held at Dundee Date 27th July
 on the Screw Steam Ship Grampian Master not appointed
 Tonnage Gross 692.34 Engine Room 169.6 Register £22.74 Built at Dundee
 under deck & 6101.78
 When Built 1864 By whom built Goulay Brothers & Co Owners
 Launched 21/4/64
 Port belonging to Dundee Destined Voyage not paid
 Surveyed Afloat or in Dry Dock Building & afloat

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet. Inches.	Power of Engines	Horse No.
217.0		28		16.25		155	
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship. 21	Inches required per Rule. 21					
Floors, Size of Angle Iron, and No. <u>one</u> at bottom of Floor Plate	4 3	7/16 4 3	7/16				
depth and thickness of Floor Plate at mid line	18	9/16 16 1/2	8/16				
depth and thickness of Floor Plate at Bilge Keelson	8	9/16	at end				
Size of Reversed Angle Iron, and No. <u>one</u> at top of Floor Plate	3 3	3/8 3 2 3/4	3/8				
Frames, Size of Angle Iron, single or double	4 3	7/16 4 3	7/16				
Reversed Iron, if to every frame	3 3	3/8 3 2 3/4	3/8				
Beams, Deck (No. <u>33</u>) double Angle Iron	2 1/2 2 1/2	5/16 2 1/2 2 1/2	5/16				
Bulkheads (No. <u>5</u>) Bulb Iron with double Angle Iron on top	2 1/2 2 3/4	5/16 2 1/2 2 1/2	5/16				
depth & thickness of plate amidships	7 9	7/16 7	7/16				
average space between	3.6	3.6					
Hold, or Lower Deck (No. <u>26</u>) double Angle Iron or Bulb Iron with double Angle Iron on top	2 1/2 2 1/2	5/16 2 1/2 2 1/2	5/16				
depth & thickness of plate amidships	7	7/16 7	7/16				
average space between	5.3	5.3					
Keelson, wood, sided & moulded, iron, size of plate	23	9/16 23	9/16				
Bulkheads, No. <u>4</u> Water tight Thickness of <u>3/8 inch</u>	4 1/2 3 1/2	7/16 4 1/2 3 1/2	7/16				

Transoms, material Iron or, if none, in what manner compensated for?
 Bulkheads, No. 4 Water tight Thickness of 3/8 inch
 how secured to the sides of the ship double angle iron frames
 size of vertical angle iron and their distance apart 3 x 3 x 3/8 = 27 to 30 ap
 The Frames or Ribs extend in one length from Center line to Gun's part rivetted through plates with (13/16 in.) rivets, about (6 in.) apart. C & C
 The reverse angle irons on the floors extend in one length across the middle line from Center line to upper part Bilge stringer on alternate frames
 on the frames from Center line to Gunwall on 23 Contiguous frames in Bi & Bulw space
 Keelson, how are the various lengths of plates or angle irons connected? by double A.T. rivetted to each end of plates & to floors also
 Plates, Garboard, double or single rivetted to keel (& at upper edge) with rivets (13/16 ins.) diameter averaging (6 in.) from centre to centre of rivet. Horizontal
 Edges from Garboard to upper part of bilge, worked carvel with a lining piece (1/2 in.) thick, or cleacher, double or single rivetted; rivets (13/16 in.) diameter, averaging (4 to 4 1/2 in.) from centre to centre of rivets.
 Butts from Keel to turn of bilge, worked carvel with a lining piece (equal to plates) thick, double or single rivetted; rivets (13/16 in.) diameter, averaging (3 3/4 to 4 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? on alternate strakes
 Edges from bilge to planksheer, worked carvel with a lining piece (equal to plates) thick, double or single rivetted; rivets (13/16 in.) diameter, averaging (3 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? on alternate strakes
 Butts from bilge to planksheer, worked carvel with a lining piece (equal to plates) thick, or cleacher, double or single rivetted; rivets (13/16 in.) diameter averaging (4 in.) from centre to centre of rivets. Breadth of laps in double rivetting (4) Breadth of laps in single rivetting (3)
 Planksheer, how secured to the plating of the sides? waterway fits out against sheer strake and is being thro bolted to it also vertically bolted to stringer on ends of Beams with screw pointed bolts & nuts
 Waterway how secured to the planksheer and to the Beams? if necessary.
 Side trussing breadth and thickness of plates how secured?
 Deck trussing
 Deck Beams, how secured to the side? Bracket ends on Beams 21 & 22 long having 3 rivets thro rib also connected by stamping plate on top
 Hold or Lower Deck
 Paddle
 No. of breasthooks 4 for all crutches how are pointers compensated?
 What description of iron is used for the angle iron and plate iron in the vessel? plates - Melton best Angle Iron - Mounsey & Deary Redington. Builder's Signature Goulay Brothers & Co

3690 Iron

Workmanship. Are the lands or laps of the clenclwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three times the diameter of the rivets where single rivetting is admitted? 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 close

Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? Solid

Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? Conform well and are the rivet holes well and sufficiently countersunk in the outer plate? Sufficiently

Are there any rivets which either break into or have been put through the seams or butts of the plating? No

Her Masts, Yards, &c., are in Good condition, and sufficient in size and length.

She has SAILS CABLES, &c. ANCHORS, and their weights.

No.	SAILS	CABLES, &c.	Fathoms.		Inches.		No.	Weight.
1	Fore Sails,	Chain	270	1 3/8	✓		3	23.10 Com
1	Fore Top Sails,	Chain Hempen Stream Cable	60	7/8	✓		1	18.3.21
1	Fore Topmast Stay Sails,	Hawser	90	9	✓		1	7.0.22
1	Main Sails,	Towlines	90	7	✓			
1	Main, Top Sails,	Warp	180	3	✓		2	13.2.20
	and other sails to form a full suit	All of <u>Good</u> quality.						1.3.16

Her Standing and Running Rigging Main & Hemp sufficient in size and Good in quality.

She has Four Boats Long Boats 29 26 25 & 22.9 Long

The present state of the Windlass is Good 2 Capstans Good and Rudder Good Pumps 4 deck & 1 Donkey

Brown & Harfield Patent 2 Steam Whimmon Brack

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

- DATES of Surveys held while building, as per Section 17.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought Oct & Nov 1863
 - 2nd. On the plating during the progress of rivetting Nov Dec Jan & Feb
 - 3rd. When the beams were in and fastened, and before the decks were laid beams put up with frames
 - 4th. When the ship was complete, and before the plating was finally coated Feb & March
 - 5th. After the ship was launched April May June to 27 July

This vessel is built with a round stern with full poop about 52 ft in length from front to after part stern post on poop deck also Top Gallant forecabin about 43 1/2 ft - along Centre part in deck

Is 13.35 Depth & 7.75 Breadths in length per rule the Compensation in consequence recommended in the Surveyors note contained in letter dated 4 June 1863 has been carried out in the construction viz Sheerstrake increased to 3/4 inch 2^d Bulb plate applied to Bilge Keelson for 1/2 length 3^d Floor plates extended in accordance with new rules &c

Materials throughout are of the best quality & workmanship well executed

Has been specially surveyed while building under order No 120.

In what manner are the surfaces preserved from oxidation? 3 Coats paint inside with Portland Cement out to Bilge Keelson - also 2 coats outside keel to Water line & 3 Coats from that upwards

I am of opinion this Vessel should be classed 12 A1

The amount of the Fee £ 5 : 4 : 0 is received by me, Thomas Alexander

Special £ 34 : 12 : 0

Certificate (if required) Certificate requested to be sent to Messrs J. Dunlop & Co. East India Assurance Co. Ltd. Baderhall St.

Committee's Minute 29 July 1864

Character assigned A 1 for 12 Years

[Handwritten signatures]

