

IRON SHIPS.

No. 2342 Survey held at Glasgow Date 10th May Rec 18/5/65
 on the Ship "Cassander" Master [Signature]
 Tonnage under tonnage deck 985.70 Built at Glasgow When built 1855 Launched 15th March/65
 Ditto of poop or spar deck 2.54 By whom built C. Coumell & Co Owners J. Riddett & Sons
 Ditto of engine room _____
 Total Register tonnage 1058.3 Port belonging to London Destined Voyage Bombay
 Surveyed while Building, Afloat, or in Dry Dock whilst building and 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.	N ^o . of Decks
201.0		35.1		21.4				Two
<i>(Dimensions of Ship per Register, length 210.7 breadth 35.1 depth 21.4)</i>								
Keel, if bar iron, depth and thickness	Inches in Ship.		Inches required per Rule.					
Keel, if plate iron, breadth and thickness	10 x 2 5/8		18 x 3					
Stem, if bar iron, moulding and thickness	10 x 2 5/8		8 x 3					
Stem, if plate iron, breadth and thickness	10 x 2 5/8		8 x 3					
Stern-post, if bar iron, moulding and thickness	10 x 2 5/8		8 x 3					
Stern-post, if plate iron, breadth and thickness	10 x 2 5/8		8 x 3					
Distance of Frames from moulding edge to moulding edge, all fore and aft	21		21					
Frames, Size of Angle Iron, single or double	5 3		9 2 3/4		16ths required per Rule.			
Reversed Iron, if to every frame	to the upper part of the keelson		to the gunwale					
Beams, size of every other frame	3 1/2		3 3/4					
Floors, depth and thickness of Floor Plate at mid line	2 1/2		10 2 3/4		16ths required per Rule.			
Ditto ditto at Bilge Keelson	10		10					
Size of Reversed Angle Iron, and No. at top of Floor Plate	3 1/2		3 3/4		16ths required per Rule.			
Beams, Deck (N ^o .) double Angle Iron, Plate, Tee, or Bulb Iron	9		9 8 1/4		16ths required per Rule.			
Double or single Angle Iron, on upper edge	3 1/2		3 3/4		16ths required per Rule.			
Average space between	3 feet		3 feet					
Hold, or Lower Deck (N ^o .) double Angle, Tee, Plate, or Bulb Iron	9		9 8 1/4		16ths required per Rule.			
Double or single Angle Iron, on upper edge	3 1/2		3 3/4		16ths required per Rule.			
Average space between	3 feet		3 feet					
Paddle, sided and moulded, thickness of Plate size of Angle Iron	5		4 1/2		16ths required per Rule.			
Engine								
Keelson, single or double plate, box, or intercostal	single plate							
Size of Plates	18		13 1/2		16ths required per Rule.			
Size of Angle Irons	5 1/2		9 1/2		16ths required per Rule.			
Side, single or double, plate, box, or intercostal	17 1/2		11		16ths required per Rule.			
Bilge (N ^o .) at each Bilge, single, or double, plate, or box	5		4 1/2		16ths required per Rule.			
Transoms, material, if none, in what manner compensated for	Iron Plate							
Knight-heads, and Hawse Timbers	English Oak & Teak							
The Frames extend in one length from	middle line		to Gunwale		rivetted through plates with (7/8 in.) rivets, about (8-) apart.			
The reverse angle irons on the floors extend in one length across the middle line from	upper part of Hold Beams		to Bilge					
on the frames	alternate		from middle line to Gunwale					
Keelson, how are the various lengths of plates or angle irons connected?	by living pieces							
Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets (7/8, 7/8 ins.) diameter, averaging (6 1/2, 7 1/2) apart.								
Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (7/8 in.) diameter, averaging (5 1/2 ins.) apart.								
Butts from Keel to turn of bilge, worked carvel with butt straps (5/8 or 1/2) thick, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3 1/2 ins.) apart.					Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>			
Edges from bilge to sheerstrake, worked carvel with a living piece () thick, or clencher, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3 1/2 in.) apart.					Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>			
Edges of Sheerstrake, double or single rivetted? At upper edge Single to Bulwarks At lower edge Double								
Butts from bilge to planksheers, worked carvel with butt straps (5/8 or 1/2) thick, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3 1/2 ins.) apart. Breadth of laps in double rivetting (5 1/2) Breadth of laps in single rivetting ()								
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? Double								
Planksheer, how secured to the plating of the sides Explain by sketch From Bulwarks								
Waterway, planksheer and to the Beams if necessary. Getting Waterway								
Deck Beams, how secured to the side? Welded knees rivetted to Frames								
Hold or Lower Deck ditto								
Paddle					No. of breasthooks <u>Four</u> crutches <u>Four</u>			
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Glasgow best Boiler								
Manufacturer's name or trade mark								

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature Charles Coumell Surveyor's Signature [Signature]

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter 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. Planned*
 Do the fillings between the ribs and plates fill in solid with single pieces? *or are they in short lengths of various thicknesses?* *Yes*
 Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes* and are the rivet holes well and sufficiently countersunk in the outer plate? *Yes*
 Are there any rivets which either break into or have been put through the seams or butts of the plating? *a few in corners of Butts*

Her Masts, Bowsprit, Yards, &c., are in *Good* condition, and sufficient in size and length. (If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.

4101 Lm

She has SAILS.		CABLES, &c.			ANCHORS, and their weights.			
No.		Tested by Messrs. Brown & Hartwood Board	Fathoms.	Inches.	Tested to Tons.	No.	Weight. Ex. Stock	Tested to Tons.
<i>2</i>	Fore Sails,	Chain	<i>300</i>	<i>1 1/2</i>	<i>55 1/2</i>	<i>3</i>	<i>28 1/2</i>	<i>28 1/2</i>
<i>Double</i>	Fore Top Sails,	Hempen Stream Cable	<i>90</i>	<i>1 1/2</i>			<i>28 1/2</i>	<i>28 1/2</i>
<i>Sub</i>	Fore Topmast Stay Sails,	Hawser					<i>28 1/2</i>	<i>28 1/2</i>
<i>of</i>	Main Sails,	Towlines	<i>90</i>	<i>9/2</i>			<i>28 1/2</i>	<i>28 1/2</i>
<i>Sails</i>	Main Top Sails,	Warp	<i>90</i>	<i>1 1/2</i>			<i>28 1/2</i>	<i>28 1/2</i>
and		All of			quality.			

Her Standing and Running Rigging *Galley Masts & Humps* sufficient in size and *Good* in quality.
 She has *two* Long Boat and *two* Life Boats and *two* Jiffs
 The present state of the Windlass is *two* Capstan *two* and Rudder *two* Pumps *two* and efficient
Emerson & Wallers Patent Windlass

Order for Special Survey DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought
 No. *554* Surveys held 2nd. On the plating during the progress of rivetting *Built under Special Survey*
 Date *17th 10th 1864* while building 3rd. When the beams were in and fastened, and before the decks were laid *from the 1st Nov^r 1864*
 Order for Ordinary Survey as per 4th. When the ship was complete, and before the plating was finally coated *to the 10th May 1865*
 No. " " Section 18. 5th. After the ship was launched

State if she has a Spar Deck *Two* Poop *Yes* or Forecastle *Yes*

General Remarks,
 Foundation Plate fitted to Middle line keelson 12 x 30 and riveted to double reverse angle bars on floors, fitted with an intermediate intercostal keelson 1 1/2 x 30 with two angle bars 5 x 4 1/2 x 30 Built Bar to Bilge keelson 8 1/2 x 30 extended full three fourths the length of the ship. Diagonals on both tiers of beams 14 1/2 x 7 1/2. Butt Straps to Sheerstrake extended over two frames and Triple Riveted. Butt Straps to Gunwale Plate triple riveted.
 Fore main Mizzen's Bowsprit framed of four plates 50 x 70 lands double clench, butts triple cannel riveted. Topmasts fore & main of 40 steel lands single and butts double riveted, with two angle bars 2 1/2 x 2 1/2 x 70. Fore main, Crossjack and Topsail Gards of steel two plates 70 x 70 with two angle bars 2 1/2 x 2 1/2 x 70 Iron Plate Glasgow Bales.

In what manner are the surfaces preserved from oxidation? Inside *Flat of bottom with Portland Cement*
 Ditto ditto Outside *Red lead and oil paint*

I am of opinion this Vessel should be Classed *A. 1*
 The amount of the Fee£ *5* is received by me,
 Special£ *52.18*
 Certificate (if required)£ *none*
 Committee's Minute *19th May 1865*

Character assigned *A. 1*
A.C.P.

A. J. Dalziel

