

Steel IRON SHIP.

(Received at London Office, TUESDAY 16 FEB 1886)

Survey held at Glasgow Date, First Survey 23rd June 1885 Last Survey 9th Feb 1886

S.S. "Mirror"

AGE under Tonnage Deck) 1020.81
 of Third Spar, 504.39
 Drawing Deck.)
 Ditto 20.27
 Houses on Deck)
 Tonnage 1545.47
 Space 144.63
 Room 1400.84
 Room 552.83
 Tonnage as out on Beam) 848.01

~~ONE, OR TWO DECKED, THREE DECKED VESSEL,~~
~~SPAR, OR AWNING-DECKED VESSEL.~~
 Half Breadth (moulded) 17.0
 Depth from upper part of Keel to top of Main Deck Beams 19.58
 Girth of Half Midship Frame (as per Rule) 31.85
 1st Number 68.43
 1st Number, if a 3-Decked Vessel deduct 7 feet
 Length 248.58
 2nd Number 17010
 Proportions— Breadths to Length 4.31
 Depths to Length— Spar Deck to Keel 9.17
Main Deck ditto 12.69

Master Gray Green
 Built at Glasgow
 When built 1885 Launched 21st Dec
 By whom built B. Napier & Sons
 Owners Eastern Telegraph Co. (Lim)
 Residence London
 Port belonging to London
 Destined Voyage London
 If Surveyed while Building, Afloat, or in Dry Dock.
Built under Special Survey

LENGTH on deck as per Rule 248.58 BREADTH Moulded 34 DEPTH top of Floors to Deck Beams 19 Do. do. Main Deck Beams 17 Power of Engines 250 Horse No. of Decks with flat laid 3 No. of Tiers of Beams 3

Dimensions of Ship per Register, length, breadth, depth	Inches in Ship	Inches per Rule						
KEEL, depth and thickness	9 + 2 1/2	9 + 2 1/2	8 1/2 + 2 1/2	8 1/2 + 2 1/2	8 1/2 + 2 3/4	8 1/2 + 2 3/4		
STEM, moulding and thickness								
STERN-POST for Rudder do. do.								
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24						
FRAMES, Angle <u>Steel</u> , for 2/3 length amidships	4 1/2	3	13	4 1/2	3	13		
Do. for 1/3 at each end	4 1/2	3	11	4 1/2	3	11		
REVERSED FRAMES, Angle <u>Steel</u>	3	3	13	3	3	13		
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	21	14 8/16	21	14 8/16				
thickness at the ends of vessel		13		13				
depth at 3/4 the half-bdth. as per Rule	10 1/2	10 1/2						
height extended at the Bilges	4 1/2	4 1/2						
BEAMS, Upper, Spar, or Awning Deck	6	4 1/2	12	6	4 1/2	12		
Single or double Angle Iron, Plate or Tee Bulb								
Average space	48	48						
BEAMS, Main, or Middle Deck	8	5	13	8	5	13		
Single or double Angle Iron, Plate or Tee Bulb								
Average space	48	48						
BEAMS, Lower Deck	8	5	13	8	5	13		
Single or double Angle Iron, Plate or Tee Bulb								
Average space	48	48						
BEAMS, Hold, or Orlop								
Single or double Angle Iron, Plate or Tee Bulb								
Average space								
KEELSONS Centre line, single or double plate, or Intercoastal Plates	14	22	14	22				
Rider Plate	10 3/4	22	10 3/4	22				
Bulb Plate to Intercoastal Keelson								
Angle <u>Steel</u>	5	4	16	5	4	16		
Double Angle Iron Side Keelson								
Side Intercoastal Plate		14		14				
do. Angle <u>Steel</u>	5	4	16	5	4	16		
Attached to outside plating with angle	3	3	13	3	3	13		
BILGE Angle <u>Steel</u>	5	4	16	5	4	16		
do. Bulb <u>Steel</u>	8	14	8	14				
do. Intercoastal plates riveted to plating for length								
BILGE STRINGER Angle <u>Steel</u>	5	4	16	5	4	16		
Intercoastal plates riveted to plating for length								
DE STRINGER Angle Irons								

FRAMES extend in one length from keel to gunwale Riveted through plates with 7/8 in. Rivets, about 2 apart.
 REVERSED ANGLE IRONS on floors and frames extend from middle line to main and to spar decks 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 3/4 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 all Strakes at Bilge for half length, treble riveted with Butt Straps 7/8 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 half length amidships. Butts of Upper Spar Sheerstrake, treble riveted half length amidships.
 Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper Spar Stringer Plate, treble riveted for half length.
 Breadth of laps of plating in double riveting 6 Dia. Breadth of laps of plating in single riveting
 Butt Straps of Keelsons, Stringer and Tie Plates, treble or double Riveted? Four Crutches, Four
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Siemens Steel
 Manufacturer's name or trade mark, Mosserand, Dalzell, and Butterley Steel.
 The above is a correct description.
 Builder's Signature, B. Napier & Sons. Surveyor's Signature, J. Thomson.
 Surveyor to Lloyd's Register of British and Foreign Shipping.

7319 G.S.

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

Masts, Bowsprit, Yards, &c., are *Steel & pine* 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 *As per approved sketch, herewith enclosed.*

Plates stamped "Crossed Steel"

NUMBER for EQUIPMENT (Q) 203/39		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.	
SAILS.	Chain	240	1 1/4	5 1/4	240-1 1/4		Bower Anchors	9643	28-0-19	27-6-1-0	27-3-0		
	Fore Sails,						(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	9644	28-0-19	27-6-1-0	27-3-0	Lipton.	
	Fore Top Sails,							9258	23-3-0	23-13-3-0	23-2-0	C. H. Lint.	
	Fore Topmast Stay Sails,												
	Main Sails,	90	3 1/2	26	90-3 1/2		Stream Anchor	14494	8-3-0	10-14-2-0	8-3-0	Sunderland	
	Main Top Sails,	90	9		90-9		Kedge	14495	4-2-0	6-14-2-0	4-2-0	J. Hirdwick	
	and	90	4		90-4		2nd Kedge	14496	2-1-0	4-15-0-0	2-1-0		
	quality	120	6										

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *2* life *Long* Boat *Sand* *4* others
The Windlass is *Davis & Col. patent.* Capstan *Good.* and Rudder *Good.* Pumps *Good.*

Engine Room Skylights.—How constructed? *Teak on iron comings.* How secured in ordinary weather? *By slide bars.*

What arrangements for deadlights in bad weather? *Strong glass panels fitted in shutters protected with brass gratings.*

Coal Bunker Openings.—How constructed? *Flat scuttles.* How are lids secured? *Self locking.* Height above deck? *Nil.*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Open bulwarks.*

Cargo Hatchways.—How formed? *Of plates and angle*
State size Main Hatch (Cable) *4-3" Dia x 12"* Forehatch *8-0" x 4-0" x 12"* Quarterhatch (Cable) *6-0" Dia x 12"*

If of extraordinary size, state how framed and secured? *✓*

What arrangement for shifting beams? *In the fore and main hatchways one fore & after.*

Hatches, if strong and efficient? *Fore and main, 2 1/2" teak gratings; after, strong teak baby hatch.*

Order for Special Survey No. 203/1	Date	Order for Ordinary Survey No.	Date	No. 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
	<i>22nd June 1885</i>			<i>410</i>		<i>1885:— June 23, July 3, 6, 9, 14, 16, 22, 23, 24, 29, 30.</i>	<i>Aug. 5, 10, 14, 19, 24, 28, 29, 31, Sept. 8, 10, 14, 19, 22, 24, 29.</i>	<i>Oct. 1, 5, 13, 15, 19, 20, 22, 26, 30, Nov. 2, 6, 10, 12, 14, 20, 23, 24, 27.</i>	<i>Dec. 1, 3, 4, 14, 17, 26, 28. 1886:— Jan. 4th, 14, 19, 25.</i>	<i>Feb. 1, 6, 9.</i>

State dates of letters respecting this case *Secretary's 25th June, 1st Aug., 14th Nov., and 19th Nov., 1885.*

General Remarks (State quality of workmanship, &c.) *The workmanship throughout is of good quality. This vessel is built of steel, in accordance with the enclosed drawings (4 and 5), the Secretary's letters referred to above, and in general conformity with the Rules for the class contemplated.*

The steel used in the construction of this vessel was tested at the Works of the Manufacturers by the Surveyors to this Society.

How are the surfaces preserved from oxidation? Inside *By cement and paint.* Outside *By paint.*

I am of opinion this Vessel should be Classed *100 A.1 Spar dk.*

The amount of the Entry Fee £ *40* is received by me, *J. Thomson*
Special £ *60* 15/2/ 1886

Committee's Minute *TUESDAY 16 FEB 1886* 18

Character assigned *100 A.1*

2 Dns. 1 1/2" Spar dk.

Reference should be made to any correspondence connected with the case.

