39 Supp.

Steel ~~IRON~~ SHIP.

(Received at London Office, FRIDAY 13 MARCH 1885)

No. 684 Survey held at Glasgow Date, First Survey 15th Aug. 1884 Last Survey 10th March 1885

On the S.S. "Electra"

TONNAGE under Tonnage Deck 486.52
Ditto of ~~Third Spar, or~~ Awning Deck. 4.47
~~Ditto of Poop, or Raised Q.r Dk.~~
Ditto of Houses on Deck 8.95
~~Ditto of Forecastle~~
Gross Tonnage 1018.99
Less Crew Space 41.04
1147.95
Less Engine Room 428.38
Register Tonnage as cut on Beam 719.57

Official Number

~~ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR~~ **AWNING-DECKED VESSEL.**

	Feet.
Half Breadth (moulded)	16.0
Depth from upper part of Keel to top of ~~Upper~~ Main Deck Beams	18.29
Girth of Half Midship Frame (as per Rule)	29.25
1st Number	63.54
~~1st Number, if a 3-Decked Vessel deduct 7 feet~~	
Length	224.83
2nd Number	14476.31
Proportions— Breadths to Length	7.12
Depths to Length ~~Upper Deck~~ to Keel	
Main Deck ditto	12.45

Master ~~Paterson~~ Pattison for Mr Menzies who is in Sing 16/3/85
Built at Glasgow
When built 1885 Launched 19th Jan.
By whom built R. Napier & Sons
Owners Eastern Telegraph Co
Residence 66 Old Broad St. London
Port belonging to London
Destined Voyage London
~~If~~ Surveyed while Building & Afloat, ~~or in Dry Dock.~~

LENGTH on deck as per Rule ... Feet. 224 Inches. 10 | **BREADTH**— Moulded ... Feet. 32 Inches. 0 | **DEPTH** top of Floors to ~~Upper Deck Beams~~ ~~Do. do.~~ Main Deck Beams ... Feet. 16 Inches. 9 | Power of Engines ... Horse. 200 | N°. of Decks with flat laid 3 | N°. of Tiers of Beams 3

Dimensions of Ship per Register, length, 234.4 breadth, 32.1 depth, 16.6 / 23.85

Depth Moulded 14.7

	Inches in Ship.			Inches per Rule.		
KEEL, depth and thickness	7/2 × 2 1/2			7/2 × 2 1/2		
STEM, moulding and thickness	7/2 × 2 3/8			7/2 × 2 3/8		
STERN-POST for Rudder do. do.	8 × 5			8 × 5		
" " for Propeller	7/2 × 4 3/4			7/2 × 4 3/4		
Distance of Frames from moulding edge to moulding edge, all fore and aft	23			23		
			32nds ~~Decs.~~	(Class 100 A)		32nds
	Inches. In Ship.	Inches. In Ship.	In Ship	Inches per Rule	Inches per Rule	per Rule
FRAMES, Angle ~~Iron,~~ Steel, for 3/5 length amidships	4	3	13	4	3	13
Do. for 1/5 at each end	4	3	11	4	3	11
REVERSED FRAMES, Angle ~~Iron,~~ Steel.	3	3	11	3	3	11
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	18 1/2		14 & 15	18 1/2		14 & 15
" thickness at the ends of vessel			13			13
" depth at 3/4 the half-bdth. as per Rule		9 1/2			9 1/2	
" height extended at the Bilges	34			34		
BEAMS, ~~Upper, Spar, or~~ Awning Deck single ~~or d'ble~~ Ang. Iron, ~~Plate or Tee Bulb Iron,~~ ~~single or double Angle Iron on Upper edge~~	5 1/2	3	14	5 1/2	3	14
Average space		46			46	
BEAMS, Main, ~~or Middle~~ Deck ~~single or d'ble Ang. Iron, Plate or~~ Tee Bulb Steel ~~Iron,~~ ~~single or double Angle Iron on Upper Edge~~	7	5	14	7	5	14
Average space		46			46	
BEAMS, Lower Deck— ~~Single or d'ble Ang. Iron, Plate or~~ Tee Bulb Steel ~~Iron,~~ ~~Single or double Angle Iron on Upper Edge~~	7	5	12	7	5	12
Average space		46			46	
~~**BEAMS, Hold, or Orlop**~~ ~~Single or d'ble Ang. Iron, Plate or Tee Bulb Iron~~ ~~Single or double Angle Iron on Upper Edge~~ ~~Average space~~						
KEELSONS Centre line, single ~~or double~~ plate, ~~box, or Intercostal, Plates~~	15		20	15		20
" Rider Plate	10 1/2		20	10 1/2		20
" ~~Bulb Plate to Intercostal Keelson~~						
" Angle Irons	5	3 1/2	14	5	3 1/2	14
" Double Angle Iron Side Keelson	5	3 1/2	14	5	3 1/2	14
" ~~Side Intercostal Plate~~ wash plates			12			12
" ~~do. Angle Irons~~						
" ~~Attached to outside plating with angle iron~~						
BILGE Angle Irons	5	3 1/2	14	5	3 1/2	14
" do. Bulb Iron 3/5 the length	7		14	7		14
" ~~do. Intercostal plates riveted to plating for length~~						
BILGE STRINGER Angle Irons	5	3 1/2	14	5	3 1/2	14
~~Intercostal plates riveted to plating for length~~						
~~**SIDE STRINGER** Angle Irons~~						

	Inches. In Ship.	32nds ~~Decs.~~ In Ship.	Inches. per Rule	32nds ~~Decs.~~ per Rule
~~Flat Keel Plates, breadth and thickness~~				
PLATES in Garboard Strakes, br'dth & thickness	34	20	34	20
" From Garboard to upper part of Bilges		18		18
" ~~Of d'bling at Bilge, or increased thickness, and length applied~~				
" From up. prt of Bilge to lr. edge of Sh'rstrake		18		18
" Main Sheerstrake, breadth and thickness	36	18	36	18
" ~~Of d'bling at Sh'stk. & lng. applied~~				
" From M'n. to ~~Upr. or Spar~~ Awning Dk. ~~Sh'rstrake~~		12		12
" ~~Up. or Spar Dk. Sh'rstrake, bdth & thickn'ss~~				
Butt Straps to outside plating, breadth & thickness	18 3/4	9 3/4	18 3/4	9 3/4
Lengths of Plating	184		115	
Shifts of Plating, and Stringers	46		46	
Gunwale Plate on ends of Awning, ~~Spar, or Upper~~ Deck Beams, breadth and thickness	Iron 29	14	29	14
Angle Iron on ditto	3 1/2 × 3 1/2	× 16	3 1/2 × 3 1/2	× 16
Tie Plates fore and aft, outside Hatchways	Iron 11	14	11	14
~~Diagonal Tie Plates on Beams No. of Pairs~~				
Flat of ~~Up., Spar, or~~ Awning Dk.*	Teak 2 1/2		2 1/4	
How fastened to Beams	By bolts	12		12
Stringer Plate on ends of Main ~~or Middle~~ Deck Beams, breadth and thickness	33	18	33	18
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. 2	3 1/2 × 3 1/2	× 14	3 1/2 × 3 1/2	× 14
Tie Plates, outside Hatchways	11	16	11	16
~~Diagonal Tie Plates on Beams, No. of pairs~~	Pr. steel as per app. drawing			
Flat of Middle Deck* do. do.	3 1/2 p. pine		3 1/2	
How fastened to Beams By bolts		18		18
Stringer Plates on ends of Lower Deck, ~~Hold or Orlop~~ Beams	29	14	29	14
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. 2	3 1/2 × 3 1/2	× 14	3 1/2 × 3 1/2	× 14
Stringer or Tie Plates, outside Hatchways	11	14	11	14
Flat of Lower Deck*	2 1/4 p. pine			
Ceiling betwixt Decks, thickness and material	6 × 2 1/2 sparring			
" in hold do. do.	2 1/2 p. pine		2 1/2	
Main piece of Rudder, diameter at head	6 1/2		6 1/2	
do. at heel	3 1/2		3 1/2	
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. 4 No. per Rule 4				
" Thickness of plates 4/32 to 3/32				
" Height up All to main deck				
" How secured to sides of ship By double frames				
" Size of Vertical Angle Irons 4 × 3 × 17/32 and distance apart 30 ins.				
" Are the outside Plates doubled two spaces of Frames in length? Yes				

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

State clearly where plating is of alternate thickness, as distinguished from diminished thickness at ends of vessel.

The **FRAMES** extend in one length from keel to awning deck Riveted through plates with 7/8 in. Rivets, about 7 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to main deck ~~and to~~ ~~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 1/8 in. diameter, averaging 5 5/8 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 7/8 ins. from centre to centre.

" **Butts from Keel to turn of Bilge,** worked carvel, treble & 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 1/16 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 7/8 ins. from cr. to cr.

" **Butts from Bilge to Main Sheerstrake,** worked carvel, treble & 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 or Spar Sheerstrake, treble riveted~~ ~~length amidships~~

" **Butts of Main Stringer Plate,** treble riveted for half length amidships. ~~Butts of Upper or Spar Stringer Plate, treble riveted for~~ ~~length~~

" Breadth of laps of plating in double riveting 6 Diam. ~~Breadth of laps of plating in single riveting~~

Butt Straps of Keelsons, Stringer and Tie Plates, treble & double ~~or single~~ Riveted? No. of Breasthooks, Five Crutches, Three

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

Manufacturer's name or trade mark, W. Cumberland Iron & Steel Co., and Dalzell.

The above is a correct description.

Builder's Signature, R. Napier & Sons. *Surveyor's Signature,* J. Thomson

Surveyor to Lloyd's Register of British and Foreign Shipping.

ROBERT EDMUND TAYLOR & SON Commercial and General Steam Printers, 19, Old Street, Ocswell Road, E.C., London.

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Workmanship. Are the butts of plating planed or otherwise fitted? Planed 6877 gls

Do the edges of the carvel work and of the butts fay 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

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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 accompanying sketch.

Makers of steel, W. Cumberland Iron & Steel Co.

NUMBER for EQUIPMENT (a) 1877 49

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntdt.
2 Ships	Fore Sails,	Chain ..... (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	240 1/3	1 3/16	43 3/10	240 1 3/16	Chester, A. S. Greek 8 & 15th Dec. 1884
	Fore Top Sails,	Iron Stream Chain	45 1/2	1	18	45 1	
	Fore Topmast Stay Sails,	~~or Steel Wire~~ .. ~~or Hempen Strm Cable~~					Tipton, E. R. Iutt, 24th Dec. 1884
		Towline, ~~Hemp~~.					
	Main Sails,	~~or~~ Steel Wire ..	90	3 1/4	22	90 3 1/4	
		Hawser	90	8		90 8	
	Main Top Sails, and	Warps 3 off ..	90	6		90 6	
		quality Good					

ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntdt.
Bower Anchors (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	8443	23-2-24	23-13-1-0	23-2-0	Chester A. S. Greek
	8480	23-1-24	23-10-1-0	23-2-0	
	8444	20-1-12	21-1-2-0	20-0-0	
Stream Anchor	8481	8-0-2	10-3-0-0	8-0-0	
Kedge ...	8482	3-3-20	6-6-2-0	4-0-0	
2nd Kedge ...	8483	2-0-14	4-12-2-0	2-0-0	

Standing and Running Rigging wire & hemp sufficient in size and good in quality. She has 2 lifts ~~Long~~ Boats and 4 others

The Windlass is Davis & Co's 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? Glass panels fitted in shutters.

Coal Bunker Openings.—How constructed? Iron comings How are lids secured? By hatch bars Height above deck? 21"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? No bulwarks on awning deck

Cargo Hatchways.—How formed? Of plates and angles

State size **Main Hatch** 7-0" dia. Forehatch 7-8 × 7-0" Quarterhatch 6-0" dia.

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

What arrangement for shifting beams? One fore and after in each hatchway.

Hatches, If strong and efficient? Strong teak gratings.

Order for Special Survey No. 1964

Date 11th Aug. 1884

Order for Ordinary Survey No. ✓

Date ✓

No. 395 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 } 1884:— Aug. 15, 19, 20, 25, 27, Sept. 1, 4, 5, 12,

2nd. On the plating during the process of riveting } 17, 23, 25, Oct. 1, 7, 10, 14, 17, 22, 27, 30, Nov. 4, 6, 10

3rd. When the beams were in and fastened, and before the decks were laid.... } 13, 18, 21, 25, 28, Dec. 8, 10, 12, 14, 19, 25, 27, 30.

4th. When the ship was complete, and before the plating was finally coated or cemented.. } 1885:— Jan. 8, 9, 13, 15, 17, 19, 26, 29. Feb. 2, 7, 12, 24, March 5, 10.

5th. After the ship was launched and equipped

State dates of letters respecting this case Secretary's 14th & 21st Aug., 30th Oct., and 1st Dec. 1884, and 13th Jan. 1885

General Remarks (State quality of workmanship, &c.) The workmanship throughout is well executed.

This vessel is built of steel, in accordance with the enclosed tracings, the Secretary's letters referred to above, and in general conformity with the rules for the contemplated class.

The freeboard, as approved per Secretary's letter of the 30th Oct. 1884, viz. 2-2" from top of main deck and 9-4 from top of awning deck has been marked on the sides of the vessel in accordance with Notice No. 471; the fresh water marks being 1-10 from top of main deck and 9-0 from top of awning deck

~~State if one, two, or three decked vessel, or if open or awning decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. (If double bottom, state particulars on separate form.)~~

How are the surfaces preserved from oxidation? Inside By cement & paint Outside By paint

I am of opinion this Vessel should be Classed ✠ 100 A 1 "Steel, Awng dk."

The amount of the Entry Fee .....£ 4 : — : — is received by me, 11/3/ 1885

Special .....£ 53 : 14 : —

(to be sent as per margin). Certificate ... — : — : —

(Travelling Expenses, if any, £).

Jo. Thomson

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRIDAY 13 MARCH 1885 18

Character assigned 100 A 1 Steel

LADCP 2 Dks 1 pt Steel and Awning Dk

Freeboard 2 ft 2 in Salt Water 9 ft 4 in Awning Dk

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

Parties are requested not to write on or below the space for Committee's Minute.

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