

# IRON SHIPS.

Rev 21/8/71

No. 4076 Survey held at Hull Date, First Survey 16<sup>th</sup> Feb Last Survey 17<sup>th</sup> Augst 1870

On the Iron Screw Steamer "Emperor" Master R Sighton

Tonnage under Tonnage Deck } 1120.46  
 Ditto of Third Spar, or Awning Deck. }  
 Ditto of Poop, or Raised Or. Dk. } 349.42  
 Ditto of Houses on Deck } 4.26  
 Ditto of Forecastle } 25.04  
 Gross Tonnage } 1501.23  
 Crew Space, as per Rule } 33.81  
 Register Tonnage, cut on Beam... }  
 Engine Room } 480.39  
 Register Tonnage, as a Steamer, cut on Beam } 987.03

ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.  
 Half moulded breadth... 30.3  
 Depth from upper part of Keel to top of Upper Deck Beams... 21.3  
 Girth of Half Midship Frame (as per Rule)... 33.9  
 1st Number... 75.25  
 Length... 251.2  
 2nd Number... 17608.50  
 Depths to Length... Eleven

Built at Glasgow  
 When built 1849 Launched...  
 By whom built Napier  
 Owners Genl. etc  
 Port belonging to Hull  
 Destined Voyage Mediterranean  
 If Surveyed while Building, Afloat, or in Dry Dock. In dry dock & afloat in about 5/6

Length on deck as per Rule, 234 Feet. Inches. Moulded Breadth, 40 Feet. Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule, 19 Feet. Inches. Horse. 170 No. of Decks with flat laid One No. of Tiers of Beams Two

Dimensions of Ship per Register, length 251.2 breadth, 40.8 depth, 19.35

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	7 1/2 x 3	9 x 2 1/2	Flat Keel Plates, breadth and thickness		
Do. if centre through plate, depth and thickness			Plates in Garboard Strakes, breadth and thickness		
Stem, if bar iron, moulding and thickness	11 x 3	8 1/2 x 2 1/2	Do. from Garboard to upper part of Bilges		
Stern-post for Rudder do. do.	10 x 3		Do. of doubling at Bilge, or increased thickness, and length applied		
Stern-post for Propeller	14 x 5	8 1/2 x 5	Do. fm up. part of Bilge to lr. edge of Sh'rstrake		
Distance of Frames from moulding edge to moulding edge, all fore and aft	15" for 100 ft amidships 18" at ends	(Class 80A)	Do. Main Sheerstrake, breadth and thickness	30	36
Frames, size of Angle Iron, for 3/4 length amidships			Do. of d'bling at Sh'rstrake, & length applied	36	36
Do. for 1/2 at each end	5 x 3	4 1/2 x 3	Do. from Mn. to Upr. or Spar Dk. Sh'rstrake.		
Reversed Frames, size of Angle Iron	3 1/2 x 3 1/4	3 x 3	Do. Up. or Spar Dk Sh'rstrake, brdth & thickness		
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	21 x 7/16	2 1/2 x 9/16	Butt Straps to outside plating, breadth & thickness	9 1/2 x 1 1/2	11 1/4 x 9/16
Do. at the ends			Lengths of Plating		
Do. do. do. at Bilge Keelson	11 x 7/16	7/16	Shifts of Plating, and Stringers	Irregular	
Do. height extended at the Bilges	34 1/2"		Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness		
Beams, Upper, Spar, or Awning Deck (No. )			Angle Iron on ditto		
single or double Angle Iron, Plate or Tee			Tie Plates (fore and aft), outside Hatchways		
Bulb Iron			Diagonal Tie Plates on Beams (No. of Pairs, )		
Single or double Angle Iron on Upper edge			Planksheer material and scantling		
Average space			Waterways do. do.		
Beams, Main or Middle Deck (No. )			Flat of Upper Deck do. do.		
single or double Angle Iron, Plate or Tee Bulb Iron	1 1/2 x 3/8	10 x 10/16	How fastened to Beams		
Average space	4 1/2	3 1/2	Stringer Plate on ends of Main or Middle Deck		
Beams, Lower Deck, Hold or Orlop (No. )			Beams, breadth and thickness	33	33
single or double Angle Iron, Plate or Tee Bulb Iron	12 x 3/8	10 x 10/16	(Is the Stringer Plate attached to the outside plating?)	4 1/2	
Average space	3	3 1/2	Angle Irons on ditto (No. 2)	5 x 4 x 7/16	4 x 4 x 7/16
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	14 x 1/2	27 x 10/16	Tie Plates, outside Hatchways	16	11
Do. Bulb Plate to Intercoastal Keelson	8 1/2 x 9/16		Diagonal Tie Plates on Beams (No. of pairs, )		
Do. Size of Angle Irons	5 x 4	5 x 4	Waterways materials and scantlings		
Do. Side Intercoastal Keelson, size of Plates	8 x 9/16	8 x 9/16	Flat of Middle Deck do. do.	4	4
Do. Angle Irons on tops of Floors			How fastened to Beams		
Do. Bilge Keelson, Bulb Iron			Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	18 x 1 1/2	25 x 9/16
Do. do. Intercoastal plates riveted to plating for length			(Is the Stringer Plate attached to the outside plating?)	5 x 3 x 7/8	
Do. double Angle Irons	5 x 4	5 x 4	Angle Irons on ditto (No. 2)	5 x 4 x 7/16	4 x 4 x 7/16
Side Stringers (No. ) size of Angle Irons	5 x 3	5 x 4	Stringer or Tie Plates, outside Hatchways		
Do. Intercoastal plates riveted to plating for length			Flat of Lower Deck		
Bilge Keel for 100 ft amidships	6 x 4	10	Ceiling betwixt Decks, thickness and material		
Transoms, material			Do. in hold do. do.	2 1/2	3 1/4
Knight-heads			Main piece of Rudder, diameter at head	6	
Windlass			Do. do. at heel	5 1/2	3 1/4
the Frames extend in one length from	Keel	to Gunwale	Bulkheads No. 5 Thickness of	7/16 x 9/16	9/16
The Reverse Angle Irons on the floors and frames extend	across the middle line	from Keel to Bilge	Do. Height up	Deck	
Keelsons. Are the various lengths of Plates and Angle Irons properly connected?	Yes	And are their butts properly shifted?	Do. How secured to the sides of the ship	Rivets to frames	
Plates, Garboard, double or	Riveted to Keel, double	at upper edge, with Rivets ( 3/4 in.) diameter, averaging ( 2 1/2 ins.) from centre to centre.	Do. Size of Vertical Angle Irons,	and their distance apart,	
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 2 1/2 ins.) from centre to centre.			Do. Are the outside Plates doubled two spaces of Frames in length?	No	
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( 1 1/2 in.) thick, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 2 1/2 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below?	Yes				
Do. of Strakes at Bilge for length, double riveted with Butt Straps	thicker than their plates				
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( 1/2 in.) thick, or clencher, double or single riveted; with rivets ( 3/4 in.) diameter, averaging ( 2 1/2 ins.) from centre to centre.					
Do. Edges of Sheerstrake, Main, double or single Riveted.	At upper edge Rivets to frames	At lower edge double rivets			
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ( 9/16 ) thick, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 2 1/2 ins.) from centre to centre.					
Do. Butts of Main Sheerstrake, double or triple Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or triple Riveted					
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?	Yes	Shifted & efficiently riveted			
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)					
Beams of the various Decks, how secured to the sides?	welded knees	No. of Breasthooks, Howe Crutches,			
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.?					
Manufacturer's name or trade mark,					

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

Builder's Signature, \_\_\_\_\_ Surveyor's Signature, M Davidson

7810 - 6th Nov 1871



92834m

**Workmanship.** Are the butts of plating planed or otherwise fitted? \_\_\_\_\_

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? \_\_\_\_\_

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

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Where seen Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Where seen Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? \_\_\_\_\_

\* 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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit \_\_\_\_\_

*Mast renewed with Fitch fine rigging wire & Hemp*

No.	Number for equipment	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.		No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
							Table 22, Rules 1870	Table 22, Rules 1870					
	SAILS.												
	CABLES, &c.												
	Fore Sails,	Chain <u>300</u>	<u>1 7/8</u>	<u>44 Tons</u>	<u>1 7/8</u>	<u>44 Tons</u>	Bowers ....	<u>3</u>	<u>25.0.0</u>	<u>Rodgers</u>	<u>23 3/4</u>	<u>23 3/4</u>	<u>23 3/4</u>
	Fore Top Sails,	<u>12 links</u>											
	Fore Topmast Stay Sails,	<u>60</u>	<u>1 7/8</u>				Stream ....	<u>1</u>	<u>16.0.0</u>		<u>10.0.0</u>		
	Main Sails,	<u>90</u>	<u>1 7/2</u>				Kedges ....	<u>2</u>	<u>4.0.0</u>		<u>5.0.0</u>		
	Main Top Sails,	<u>160</u>	<u>9 1/2</u>										
	and other rigging	<u>120</u>	<u>6</u>										

Her Standing and Running Rigging good sufficient in size and good in quality. She has one Life Boat and five others

The present state of the Windlass is good Capstans good and Rudder good Pumps good

Engine Room Skylights.—How constructed? Iron & wood How secured in ordinary weather? In usual manner

What arrangements are there for deadlights in such for bad weather? Varpauling

Coal Bunker Openings.—How constructed? Oval How are lids secured? Iron Cap How high above deck? 7"

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Ports cut and gangways

Cargo Hatchways.—How formed? Iron State size 18x9ft., 7x8ft., 18x6x9ft., 3x6x9ft.

If of extraordinary size, state how framed and secured? \_\_\_\_\_

What arrangement for shifting beams? Iron Beam fastened with Iron screw bolts

Hatches, themselves, whether strong and efficient? good Main Hatchways.—State size 18x6x9ft.

Order for Special Survey No. \_\_\_\_\_ DATES of \_\_\_\_\_

Date \_\_\_\_\_ Surveys held \_\_\_\_\_

Order for Ordinary Survey No. \_\_\_\_\_ while building \_\_\_\_\_

Date \_\_\_\_\_ as per \_\_\_\_\_

No. \_\_\_\_\_ in builder's yard. 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 progress 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 \_\_\_\_\_

**General Remarks,**

*Now done - Converted from Paddle to screw steamer stern post removed and new stern frame fitted also after lengths of plating in way of same. Plating amidships for 65 feet in length + 5th in depth from top of Sheerstrake on each side removed & new with 7/8 plate. Frames in way of same taken out & set to altered form of beam. Twenty Deck Beams fitted by two of which are new. Main deck renewed amidships with 4" Sheerstrake doubled fore & aft with plate 3/4 x 7/8 also three strakes in way of stowage pipes doubled - one plate at upper part of deck for 120 ft amidships with plate 1 1/2 x 7/8. Bilge keel also fitted for amidships of 6 x 4 x 7/8 double angle iron. Hold stringer fitted for Centre line keelson & Bilge keelson fore & aft all as per spec. Loop extended over engine space say 94 feet. total length of fore 132ft 6" poop deck new for 94ft properly shifted with 3 1/2" pine. Floor plates under boiler renewed - The beam scraped outside & inside cement removed in places plating 1/2" thickness as per section cement repaired - all clow ceiling renewed & poop deck caulked*

State if one, two or three decked vessel, or if open or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom

In what manner are the surfaces preserved from oxidation? Inside with cement to bilge Outside with paint

Opinion this Vessel should be Classed 85 A 1 & marked S.S. No 3. 71 - Cemented

The amount of the Entry Fee .....£ 5 - - is received by me,

Special .....£ 9 - -

Certificate .... : 5 - -

(Travelling Expenses) (if any) £ 6 - -

Committee's Minute 24 Aug 1871

Character assigned 85 A 1 S.S. No. 3-71 W.D.S.

*Mr. Gemmell 21/*

*Wm. R. Davidson*

*Alex. Gemmell*

