

IRON SHIPS.

No. 4076 Survey held at Hull Date, First Survey 16th Feb Last Survey 17th Aug 1870
 On the Iron Screw Steamer "Emperor" Master R. Sighton

Tonnage under Tonnage Deck <u>1120.46</u>	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Glasgow</u>
Ditto of Third Spar, or Awning Deck. <u>349.42</u>	Half moulded breadth <u>20.3</u>	Half Moulded Breadth....	When built <u>1849</u> Launched <u> </u>
Ditto of Poop, or Raised Or. Dk. <u>4.26</u>	Depth from upper part of Keel to top of Upper Deck Beams <u>21.3</u>	Total Depth if three or more Decks	By whom built <u>Kapier</u>
Ditto of Houses on Deck <u>2.18</u>	Girth of Half Midship Frame (as per Rule) <u>33.9</u>	Total Girth of Half Midship Frame	Owners <u>G. & Co</u>
Ditto of Forecastle <u>25.04</u>	1st Number <u>75.25</u>	3rd Number <u> </u>	Port belonging to <u>Hull</u>
Gross Tonnage <u>1501.23</u>	Length <u>251.2</u>	4th Number <u> </u>	Destined Voyage <u>Mediterranean</u>
Crew Space, as per Rule <u>33.81</u>	2nd Number <u>17608.50</u>	Breadths to Length <u>54.5</u>	If Surveyed while Building, Afloat, or in Dry Dock. <u>In dry dock & afloat in about 50%</u>
Register Tonnage, as per Rule <u>480.39</u>	Depths to Length <u>Eleven</u>		
Engine Room <u>987.03</u>			
Register Tonnage, as a Steamer, cut on Beam <u>987.03</u>			

Length on deck 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	<u>7 1/2</u> <u>3</u>	<u>9</u> x <u>2 1/2</u>	Flat Keel Plates, breadth and thickness		
Do. if centre through plate, depth and thickness	<u>11</u> x <u>3</u>	<u>8 1/2</u> x <u>2 1/2</u>	Plates in Garboard Strakes, breadth and thickness	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Stem, if bar iron, moulding and thickness	<u>10</u> x <u>5</u>	<u>8 1/2</u> x <u>5</u>	Do. from Garboard to upper part of Bilges	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Stern-post for Rudder do. do.	<u>15</u> <u>1/2</u> <u>10</u> <u>1/2</u> <u>10</u> <u>1/2</u>	<u>8 1/2</u> x <u>5</u>	Do. of doubling at Bilge, or increased thickness, and length applied	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Stern-post for Propeller	<u>18</u> <u>1/2</u> <u>10</u> <u>1/2</u>	<u>8 1/2</u> x <u>5</u>	Do. fm up. part of Bilge to l. edge of Sh'rstrake	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>18</u> <u>1/2</u> <u>10</u> <u>1/2</u>	<u>8 1/2</u> x <u>5</u>	Do. Main Sheerstrake, breadth and thickness	<u>30</u> <u>1/2</u>	<u>30</u> <u>1/2</u>
Frames, size of Angle Iron, for 2/3 length amidships	<u>5</u> <u>3</u> <u>5</u> <u>3</u>	<u>4 1/2</u> <u>3</u>	Do. of d'bling at Sh'rstrake, & length applied	<u>36</u> <u>1/2</u>	<u>36</u> <u>1/2</u>
Do. for 1/3 at each end	<u>5</u> <u>3</u> <u>5</u> <u>3</u>	<u>4 1/2</u> <u>3</u>	Do. from Mn. to Upr. or Spar Dk. Sh'rstrake		
Reversed Frames, size of Angle Iron	<u>3 1/2</u> <u>3 1/2</u> <u>12</u> <u>3</u>	<u>4 1/2</u> <u>3</u>	Do. Up. or Spar Dk Sh'rstrake, brdth & thickness		
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>21</u> x <u>7 1/2</u>	<u>21 1/2</u> x <u>9 1/2</u>	Butt Straps to outside plating, breadth & thickness	<u>9 1/2</u> x <u>10</u> <u>1/2</u>	<u>9 1/2</u> x <u>10</u> <u>1/2</u>
Do. at the ends	<u>11</u> x <u>7 1/2</u>	<u>11 1/2</u> x <u>9 1/2</u>	Lengths of Plating	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Do. do. do. at Bilge Keelson	<u>11</u> x <u>7 1/2</u>	<u>11 1/2</u> x <u>9 1/2</u>	Shifts of Plating, and Stringers	<u>10</u> <u>1/2</u>	<u>10</u> <u>1/2</u>
Do. height extended at the Bilges	<u>11</u> x <u>7 1/2</u>	<u>11 1/2</u> x <u>9 1/2</u>	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness		
Beams, Upper, Spar, or Awning Deck (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Angle Iron on ditto		
Single or double Angle Iron on Upper edge	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Tie Plates (fore and aft), outside Hatchways		
Average space	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Diagonal Tie Plates on Beams (No. of Pairs,)		
Beams, Main or Middle Deck (No. 2) single, or double Angle Iron, Plate or Tee Bulb Iron	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Planksheer material and scantling		
Single or double Angle Iron, Plate or Tee Bulb Iron	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Waterways do. do.		
Average space	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Flat of Upper Deck do. do.		
Beams, Lower Deck, Hold or Orlop (No. 3) single or double Angle Iron, Plate or Tee Bulb Iron	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	How fastened to Beams		
Single or double Angle Iron on Upper Edge	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<u>33</u> <u>1/2</u>	<u>33</u> <u>1/2</u>
Average space	<u>12</u> x <u>3 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	(Is the Stringer Plate attached to the outside plating?)	<u>40</u> <u>1/2</u>	<u>40</u> <u>1/2</u>
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	<u>14</u> x <u>1/2</u>	<u>27</u> x <u>10</u> <u>1/2</u>	Angle Irons on ditto (No. 2)	<u>5</u> x <u>4</u> <u>1/2</u>	<u>5</u> x <u>4</u> <u>1/2</u>
Do. Bulb Plate to Intercoastal Keelson	<u>8 1/2</u> x <u>9 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Tie Plates, outside Hatchways	<u>16</u> <u>1/2</u>	<u>16</u> <u>1/2</u>
Do. Size of Angle Irons	<u>5</u> <u>4</u> <u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	<u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	Diagonal Tie Plates on Beams (No. of pairs,)	<u>16</u> <u>1/2</u>	<u>16</u> <u>1/2</u>
Do. Side Intercoastal Keelson, size of Plates	<u>8</u> x <u>9 1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Waterways materials and scantlings	<u>4</u> <u>1/2</u>	<u>4</u> <u>1/2</u>
Do. Angle Irons on tops of Floors	<u>10</u> x <u>10</u> <u>1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	Flat of Middle Deck do. do.	<u>4</u> <u>1/2</u>	<u>4</u> <u>1/2</u>
Do. Bilge Keelson, Bulb Iron	<u>10</u> x <u>10</u> <u>1/2</u>	<u>10</u> x <u>10</u> <u>1/2</u>	How fastened to Beams	<u>4</u> <u>1/2</u>	<u>4</u> <u>1/2</u>
Do. do. Intercoastal plates riveted to plating for length	<u>5</u> <u>4</u> <u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	<u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>5</u> x <u>4</u> <u>1/2</u>	<u>5</u> x <u>4</u> <u>1/2</u>
Do. double Angle Irons	<u>5</u> <u>4</u> <u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	<u>9 1/2</u> <u>5</u> <u>4</u> <u>9 1/2</u>	(Is the Stringer Plate attached to the outside plating?)	<u>5</u> x <u>4</u> <u>1/2</u>	<u>5</u> x <u>4</u> <u>1/2</u>
Side Stringers (No. 4) size of Angle Irons	<u>5</u> <u>3</u> <u>9 1/2</u> <u>5</u> <u>3</u> <u>9 1/2</u>	<u>9 1/2</u> <u>5</u> <u>3</u> <u>9 1/2</u>	Angle Irons on ditto (No. 2)	<u>5</u> x <u>4</u> <u>1/2</u>	<u>5</u> x <u>4</u> <u>1/2</u>
Do. Intercoastal plates riveted to plating for length	<u>6</u> <u>4</u> <u>10</u> <u>6</u> <u>4</u> <u>10</u>	<u>10</u> <u>6</u> <u>4</u> <u>10</u>	Stringer or Tie Plates, outside Hatchways	<u>18</u> <u>1/2</u>	<u>18</u> <u>1/2</u>
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.			Flat of Lower Deck	<u>18</u> <u>1/2</u>	<u>18</u> <u>1/2</u>
Knight-heads <u>Iron</u> Hawse Timbers <u>Iron</u>			Ceiling betwixt Decks, thickness and material	<u>2 1/2</u> <u>1/2</u>	<u>2 1/2</u> <u>1/2</u>
Windlass <u>Iron</u> Pall Bitt <u>Iron</u>			Do. in hold do. do.	<u>2 1/2</u> <u>1/2</u>	<u>2 1/2</u> <u>1/2</u>
The Frames extend in one length from <u>Keel</u> to <u>Gunnwale</u>			Main piece of Rudder, diameter at head	<u>6</u> <u>1/2</u>	<u>6</u> <u>1/2</u>
The Reverse Angle Irons on the floors and frames extend <u>across</u> the middle line <u>from Keel</u> to <u>Bilge</u>			Do. do. at heel	<u>5 1/2</u> <u>3 1/4</u>	<u>5 1/2</u> <u>3 1/4</u>
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u>			(Can the Rudder be unshipped afloat? <u>Yes</u>)		
Plates, Garboard, double or single Riveted to Keel, double or single Riveted at upper edge, with Rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre.			Bulkheads No. <u>5</u> Thickness of <u>7 1/2</u> x <u>9 1/2</u>		
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre.			Do. Height up <u>Deck</u>		
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (<u>1 1/2</u> <u>1/2</u> thick, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre.			Do. How secured to the sides of the ship <u>Rivets to frames</u>		
Do. of Strakes at Bilge for <u> </u> length, <u>double</u> riveted with Butt Straps <u> </u> thicker than their plates.			Do. Size of Vertical Angle Irons, <u> </u> and their distance apart, <u> </u>		
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece (<u> </u>) thick, or clencher, double or single riveted; with rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre.			Do. Are the outside Plates doubled two spaces of Frames in length? <u>No</u>		
Do. Edges of Sheerstrake, Main, double or single Riveted. <u>Upper, double or single Riveted.</u> At upper edge <u>Rivets to frames</u> At lower edge <u>double rivets</u>					
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (<u>9 1/2</u>) thick, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> 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 <u>for length amidships.</u> Breadth of laps of plating in double Riveting (<u>Sufficient</u>) Breadth of laps of plating in single Riveting (<u>Sufficient</u>)					
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Single or double Rivets</u>					
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? <u>Welded knees</u> No. of Breasthooks, <u>None</u> Crutches, <u> </u>					
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

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? Yes
 Do the fillings between the ribs and plates fill in solid with single pieces? No 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? No

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 Pitch pine Rigger Wire & Hemp

Number for equipment		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	Wt. req'd per Rule.	Test req'd per Rule.
SAILS.												
CABLES, &c.												
Fore Sails,	Chain <u>300</u>	<u>17/16</u>	<u>44</u>	<u>44</u>	<u>17/16</u>	<u>44</u>	Bowers	<u>3</u>	<u>26.0.0</u>	<u>23 1/2</u>	<u>23 1/2</u>	<u>23 1/2</u>
Fore Top Sails,	12 links <u>12</u>	<u>17/16</u>	<u>44</u>	<u>44</u>	<u>17/16</u>	<u>44</u>	Stream	<u>1</u>	<u>16.0.0</u>	<u>10.0.0</u>	<u>10.0.0</u>	<u>10.0.0</u>
Fore Topmast Stay Sails	12 links <u>12</u>	<u>17/16</u>	<u>44</u>	<u>44</u>	<u>17/16</u>	<u>44</u>	Kedges	<u>2</u>	<u>4.0.0</u>	<u>2.0.0</u>	<u>2.0.0</u>	<u>2.0.0</u>
Main Sails,	Hawser	<u>90</u>	<u>7 1/2</u>									
Main Top Sails,	Towlines	<u>160</u>	<u>9 1/2</u>									
and other rigging	Warp	<u>120</u>	<u>6</u>									
	All of <u>good</u> quality.											

Her Standing and Running Riggering 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?

Port cut and gangways

Cargo Hatchways.—How formed? Iron State size 18x9ft. 7x8ft. 18ft 6"x9ft 3ft 6"x9ft

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 18ft 6"x9ft

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 pro

Removed and new Stern frame fitted also after length of plating

in way of same. Plating amidships for 60 feet in length + 5th

in depth from top of Shustrake on each side removed & new

with 7/16 plates. Frames in way of same taken out & set to

alter form of beam. Twenty Deck Beams fitted by two

of which are new. Main Deck Renewed amidships with 4" plates

Shustrake doubled fore & aft with plate 3/16 x 7/16 also three Shustrake for

in way of Hawser pipes doubled - one plate at upper part of bilge

for 120 ft amidships with plate 1/2 x 7/16. Bilge Keel also fitted for

amidships of 6 x 4 x 3/16 double angle iron. Hold Stringer fitted for

a Centre line Keelson & Bilge Keelson fore & aft all as per

Loop extended over Engine space say 90 feet. Total length of 100

132ft 6" Poop deck new for 94ft properly shifted with 3 1/2" plates

pine. Floor plates under Boiler renewed. The beam

Scraped Outside & Inside Cement removed in places plating

& thickness as per Section Cement repaired. All clow ceiling renewed

and Poop Deck Caulked

State if one, two or three decked vessel, or if open or running 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

We are

of 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

Mr. Gemmell

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