

# IRON SHIP.

No. 362 Survey held at Hayle Date, First Survey Nov. 1873 Last Survey October 1875

In the propeller Frank Batters / Steamer / Master Lubra

**TONNAGE** under Tonnage Deck } 466 - 83  
 Ditto of Third, Spar, or Awning Deck. }  
 Ditto of Poop, or Raised Qr. Dk. }  
 Ditto of Houses on Deck }  
 Ditto of Foremastle }  
 Gross Tonnage }  
 Less Crew Space }  
 Less Engine Room } 187 - 59  
 Register Tonnage as out on Beam } 279 - 24

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 SPAR, OR AWNING-DECKED VESSEL.  
**HALF BREADTH** (moulded)... .. 13 - 15 Feet.  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 12 - 375  
**GIRTH** of Half Midship Frame (as per Rule) ... .. 24 - 0  
**1st NUMBER** ... .. over 7200  
**1st NUMBER, if a THREE-DECKED VESSEL** under 8900  
 [deduct 7 feet]  
**LENGTH** ... ..  
**2nd NUMBER** ... ..  
**PROPORTIONS**—Breadths to Length ... ..  
 Depths to Length—Upper Deck to Keel ... .. over 14  
 Main Deck ditto ... .. under 15

Built at Hayle  
 When built 1874 Launched 1874  
 By whom built Harvey & Co  
 Owners  
 Port belonging to  
 Destined Voyage At Hayle since launch  
 If Surveyed while Building, Afloat, or in Dry Dock.

<b>LENGTH</b> on deck as per Rule ...	Feet. <u>143</u> Inches. <u>6</u>	<b>BREADTH</b> Moulded ...	Feet. <u>27</u> Inches. <u>5</u>	<b>DEPTH</b> top of Floors to Upper Deck Beams ...	Feet. <u>11</u> Inches. <u>4</u>	Power of Engines ...	Horse. <u>50</u>	N <sup>o</sup> . of Decks with flat laid	<u>One</u>
				Do. do. Main Deck Beams ...				N <sup>o</sup> . of Tiers of Beams	

Dimensions of Ship per Register, length, 143-6 breadth, 27-5 depth, 11-4

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	16ths required	16ths required
<b>KEEL</b> , depth and thickness ...	<u>6 1/2 x 2 1/2</u>	<u>7 1/4 x 7 1/8</u>				
<b>STEM</b> , moulding and thickness ...	<u>6 1/2 x 2 1/2</u>					
<b>STERN-POST</b> for Rudder do. do. <u>See sketch</u>						
for Propeller ... <u>do</u>						
Distance of Frames from moulding edge to moulding edge, all fore and aft ...	<u>21</u>	<u>21</u>				
<b>FRAMES</b> , Angle Iron, for 1/2 length amidships ...	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Do. for 1/4 at each end ...	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
<b>REVERSED FRAMES</b> , Angle Iron ...	<u>2 1/2</u>	<u>2 1/2</u>	<u>5</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5</u>
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships ...	<u>12</u>	<u>12</u>	<u>6</u>	<u>14</u>	<u>14</u>	<u>6</u>
thickness at the ends of vessel ...			<u>5</u>			
depth at 1/2 the half-bath, as per Rule ...						
height extended at the Bilges... <u>See Midship section</u>						
<b>BEAMS</b> , Upper, <u>Span on Upper Deck</u> } <u>6 1/2</u> } <u>8</u> } <u>7</u> } <u>7</u>						
Height of d'ble Ang. Iron, <u>None</u> } <u>None</u> } <u>None</u> } <u>None</u> }						
Height of double Angle Iron on Upper edge ...	<u>2 1/2</u>	<u>2 1/2</u>	<u>5</u>			
Average space... <u>3 ft. 6</u>						
<b>BEAMS</b> , Main, or Middle Deck ...						
Height of d'ble Ang. Iron, Plate or Tee Bulb Iron ...						
Height of double Angle Iron, on Upper Edge ...						
Average space... ...						
<b>BEAMS</b> , Lower Deck, Hold, or Orlop ...						
Height of d'ble Ang. Iron, Plate or Tee Bulb Iron ...						
Height of double Angle Iron on Upper Edge ...						
Average space... ...						
<b>KEELSONS</b> Centre line, single <u>double</u> plate, } <u>12</u> } <u>7</u> } <u>11</u> } <u>9</u>						
box or Intercostal, Plates ...						
" Rider Plate ...						
" Bulb Plate to Intercostal Keelson ...						
" Angle Irons ...	<u>3 1/2</u>	<u>3</u>	<u>6</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>6</u>
" Double Angle Iron Side Keelson ...						
" Side Intercostal Plate ...						
" do. Angle Irons ...						
" Attached to outside plating with angle iron ...						
<b>BILGE</b> Angle Irons ... <u>See Midship section</u>						
" do. Bulb Iron ...	<u>do</u>					
" do. Intercostal plates riveted to plating for ... length	<u>do</u>					
<b>BILGE STRINGER</b> Angle Irons ...						
Intercostal plates riveted to plating for ... length.	<u>do</u>					
<b>SIDE STRINGER</b> Angle Irons ...	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Transoms, material. Knight-heads. Hawse Timbers. <u>Iron</u>						
Windlass <u>Iron Patent</u> Pall Bitt						

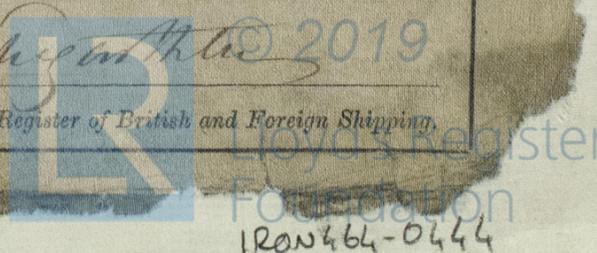
Flat Keel Plates, breadth and thickness ...	<u>33 x 8</u>	<u>30</u>	<u>8</u>	<u>90</u>
<b>PLATES</b> in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ...	<u>38 x 7</u>			<u>6 x 7</u>
fm up. part of Bilge to lr. edge of Sh'rstrake	<u>36</u>	<u>7</u>		
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	<u>33</u>	<u>10</u>	<u>33</u>	<u>9</u>
Up. or Spar Dk Sh'rstrake, brdth & thckns				
Butt Straps to outside plating, breadth & thickness	<u>8 1/2 x 7-8-9</u>	<u>2</u>	<u>10</u>	
Lengths of Plating ...	<u>12 feet average</u>			
Shifts of Plating, and Stringers ...	<u>half plate</u>			
Gunwale Plate <u>on ends of main or middle deck</u> or } Upper Deck Beams, breadth and thickness ...	<u>25 x 9</u>	<u>42</u>	<u>9</u>	
Angle Iron on ditto ...	<u>3 x 3 x 1/2</u>			
Tie Plates fore and aft, outside Hatchways ...	<u>8 1/2 x 7</u>			
Diagonal Tie Plates on Beams No. of Pairs,				
Planksheer material and scantling <u>See stringer</u>				
Waterways do. do. ...				
Flat of Upper Deck do. do. ...	<u>3 1/4 x 5 yellow pine</u>			
How fastened to Beams ...	<u>Bolts &amp; nuts</u>			
Stringer Plate on ends of Main or Middle Deck } Beams, breadth and thickness ...				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No. ...				
Tie Plates, outside Hatchways ...				
Diagonal Tie Plates on Beams, No. of pairs ...				
Waterways materials and scantlings ...				
Flat of Middle Deck do. do. ...				
How fastened to Beams ...				
Stringer Plates on ends of Lower Deck, Hold or } Orlop Beams ...				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No. ...				
Stringer or Tie Plates, outside Hatchways ...				
Flat of Lower Deck ...				
Ceiling betwixt Decks, thickness and material ...				
in hold do. do. ...				
Main piece of Rudder, diameter at head ...	<u>4 1/2</u>			
do. at heel ...	<u>2 3/4</u>			
Can the Rudder be unshipped afloat?	<u>No</u>			
Bulkheads No. <u>4</u> Thickness of plate <u>4/16</u>		<u>4/16</u>		
Height up <u>To deck</u>				
How secured to sides of ship <u>frames &amp; gussets</u>				
Size of Vertical Angle Irons <u>2 1/2 x 2 1/2 x 1/2</u> and distance apart <u>30</u> ins.				
Are the outside Plates doubled two spaces of Frames in length?				

The **FRAMES** extend in one length from Middle Line to Deck Riveted through plates with 3/4 in. Rivets, about 5 1/2 apart.  
 The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to half midship depth and to every frame  
**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 in. diameter, averaging 4 1/2 ins. from centre to centre.  
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 2 3/4 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 2 3/4 ins. from centre to centre.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 2 3/4 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 2 3/4 ins. from cr. to cr.  
 Edges of Main Sheerstrake, double single riveted. Upper Sheerstrake, double single riveted.  
 Butts of Main Sheerstrake, double riveted for whole length amidships. Butts of Upper or Spar Sheerstrake, double riveted whole length amidships.  
 Butts of Main Stringer Plate, double riveted for whole length amidships. Butts of Upper or Spar Stringer Plate, double riveted whole length.  
 Breadth of laps of plating in double riveting 4 1/4 Breadth of laps of plating in single riveting 2 1/4

Butt Straps of Keelsons, Stringer and Tie Plates, double single Riveted?  
 Waterway, how secured to Beams See sketch (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? by gussets No. of Breasthooks, Three Crutches, None  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Welsh  
 Manufacturer's name or trade mark, Old Lodge (Newell)

The above is a correct description.  
 Builder's Signature, Harvey & Co Surveyor's Signature, H. J. ...  
 Surveyor to Lloyd's Register of British and Foreign Shipping.



Workmanship. Are the butts of plating planed or otherwise fitted? *Chipped and filed*

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? *No*

*15694 Iron*

Masts, Bowsprit, Yards, &c., are *new* 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. *Revels. Old Lodge Llanudoch*

State also Length and Diameter of Lower Masts and Bowsprit

*Fore Mast from deck to hounds 44-0 pole 18 ft. } Wood  
Main Mast " " " 46-6 " 16 " }*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
1	SAILS.	210	1 3/16	25.10.0.0.	17 5/16	7mm	3 Bowers	1	12-2-16	14-18-2.5	12 (1.1)	13 7/20
	CABLES, &c.								12-0-23	14-0-2.14		
1	Fore Sails,	90	9 1/2	90	7	25 3/8	Stream	1	10-1-12	12-6-0-23	5 1/2	17 1/2
	Fore Top Sails,								4-0-0	6-7-2-0		
1	Fore Topmast Stay Sails	90	7	90	5	Kedges	2	1	2-0-0	4-10-0.0	17 1/2	13 7/20
	Main Sails,								3-3-26	6-7-2-0		
1	Main Mast Sails,	90	4	90	4	Kedges	2	1	2-0-0	4-10-0.0	17 1/2	13 7/20
	Main Mast Sails,								3-3-26	6-7-2-0		

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *one* Long Boat and *one* Life Boat

The Windlass is *Hartfield's Patent* Capstan *Iron* and Rudder *Iron* Pumps *Iron*

Engine Room Skylights.—How constructed? *of wood on top of Bridge* How secured in ordinary weather? *By Bolts & hooks*

What arrangements for deadlights in bad weather? *Wood deadlight fixed securely to frame*

Coal Bunker Openings.—How constructed? *of Cast Iron* How are lids secured? *by lock Bolts* Height above deck? *10"*

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

Cargo Hatchways.—How formed? *of Iron Combings & Wood Hatches*

State size *Main Hatch 24-2 x 8-6* Forehatch *6-7 1/2 x 6-7 1/2* Quarterhatch *13-7 1/2 x 8-1*

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

What arrangement for shifting beams? *—*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *—* Date *—*

Order for Ordinary Survey No. *—* Date *—*

No. *13* in builder's yard.

General Remarks (State quality of workmanship, &c.) *This vessel was surveyed by Mr. W. D. Matthews while building.*

*accompanied occasionally by myself - it is now principally from his note book again examined, and*

*compared where it was practicable, that the foregoing particulars have been obtained - She*

*was originally built for the conveyance of iron ore from the United Kingdom - is fitted*

*with double Bottom for about 90 feet of her length amidships, with seven Keelsons running the*

*whole length of Ballast Tank - secured to double reverse Frames and Tops of Tanks - and*

*extra additional longitudinal strength by two stringer plates on each side, between upper*

*Deck stringer and Top of Ballast Tank - particulars described in sketch of midship section -*

*The dimensions in some instances are not in accordance with the Rules, but in my opinion*

*they are sufficiently compensated for by the extra longitudinal strengtheners inside as well as out -*

*The Certificates of Chains and Anchors bearing date 1872 - is owing to the fact that the*

*Builders at that time built a similar ship, and having this contract then on hand, they ordered the Cable*

*anchors for both vessels together - but in consequence of the war in Spain, it has not been carried out*

*The Workmanship throughout is very good - materials of best quality, and is apparently*

*a very strong vessel - Flush Deck -*

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Bottom to Turn of Bilges Cemented* Outside *Painted*

I am of opinion this Vessel should be Classed *90 A*

The amount of the Entry Fee ... £ *5:0:0* is received by me, *Hugh Sugasther*

Special ... £ *10:10:0* Certificate ... *—*

Committee's Minute *21<sup>st</sup> Oct* Character assigned *90 A*

*Gen Committee meeting 9<sup>th</sup> Dec 1875 - when the Surveyor was raised to 90 A when the Surveyor*

