

# IRON OR STEEL SHIP.

(Received at London Office, 1890)

Date of writing Report *25<sup>th</sup> April 1890* Port of *Middlesbrough*

No. *46*

Survey held at *Stockton*

Date, First Survey *19<sup>th</sup> June 1889*

Last Survey *21<sup>st</sup> April 1890*

On the

*Iron Screw Steamer "Paunder"*

Rig *Schooner (3 masts)*

TONNAGE under

*1645.75*

ONE, OR TWO DECKED, THREE DECKED VESSEL,

Master

*Ross*

Do. between Tonnage Dk.

*647.79*

SPAR, OR AWNING-DECKED VESSEL.

Year of appointment

(1) As master in service of owner of present vessel:—18

(2) As master of this vessel:—18

and *and* Spar or Dk.

*Upper Dk. 2293.54*

Half Breadth (moulded) .. .. .

*18.50*

Built at

*Stockton*

Do. of Bridge House

*20.30*

Depth from upper part of Keel to top of Upper Deck Beams

*20.44*

When built

*1890*

Launched *8<sup>th</sup> March 1890*

Do. of Houses on Deck

*5.64*

Girth of Half Midship Frame (as per Rule) .. .. .

*35.54*

By whom built

*Graig Taylor & Co.*

Do. of excess of Hatchways

*2256.92*

1st Number .. .. .

*94.48*

Owners

*Alfred Stewart*

Do. of Forecastle

*2319.48*

1st Number, if a 3-Decked Vessel .. deduct 7 feet

*21643*

Managers

*"*

Gross Tonnage

*62.56*

Length .. .. .

*291.0*

Residence

*"*

Less Crew Space

*2256.92*

2nd Number .. .. .

*21643*

Port belonging to

*London*

Less Engine Room

*742.23*

Proportions— Breadths to Length .. .. .

*7.8*

Destined Voyage

*New York*

Register Tonnage

*1514.69*

Depths to Length—Upper Deck to Keel .. .. .

*14.2*

If Surveyed while Building, Afloat, or in Dry Dock.

*While building and afloat.*

as cut on Beam

LENGTH on deck as Rule ... *291.0* BREADTH Moulded ... *34.0* DEPTH top of Floors to Upper Deck Beams ... *25.5 3/4* Do. do. Main Deck Beams ... *18 5 3/4* Power of Engines ... *250* Horse N° of Decks with flat laid ... *Two* N° of Tiers of Beams ... *Four*

Dimensions of Ship per Register, length *292.3* breadth, *37.0* depth, *18.5* Moulded depth *19.8*

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness ... <i>P. Plate</i>			Flat Keel Plates, breadth and thickness ...	<i>36</i>	<i>16</i>
STEM, moulding and thickness ...	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>	PLATES in Garboard Strakes, br'dth & thickness	<i>40</i>	<i>12</i>
STERN-POST for Rudder do. do. ...	<i>9 x 5 1/2</i>	<i>9 x 5 1/2</i>	From Garboard to upper part of Bilges ...	<i>10 and 11 alt</i>	<i>10 and 11 alt</i>
" " for Propeller ...	<i>9 x 5 1/2</i>	<i>9 x 5 1/2</i>	Of d'bling at Bilge, or increased thickness, and length applied		
Distance of Frames from moulding edge to moulding edge, all fore and aft ...	<i>24</i>	<i>24</i>	From up. prt of Bilge to l.r. edge of Sh'rstrake ...	<i>10 and 11 alt</i>	<i>10 and 11 alt</i>
FRAMES, Angle Iron, for 1/2 length amidships ...	<i>5 3</i>	<i>5 3</i>	Main Sheerstrake, breadth and thickness ...	<i>40</i>	<i>13</i>
or 1/4 at each end ...	<i>5 3</i>	<i>5 3</i>	Of d'bling at Sh'stk. & lng. applied		
REVERSED FRAMES, Angle Iron ...	<i>3 3</i>	<i>3 3</i>	From M'n. to Up. or Spar Dk. Sh'rstrake ...	<i>10</i>	<i>10</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ...	<i>23 1/2</i>	<i>9</i>	Up. or Spar Dk Sh'rstrake, br'dth & thicken'ss ...	<i>40</i>	<i>14</i>
" thickness at the ends of vessel ...			Butt Straps to outside plating, breadth & thickness	<i>19 1/2</i>	<i>14</i>
" depth at 3/4 the half-bdth. as per Rule ...	<i>14</i>	<i>11 3/4</i>	Lengths of Plating <i>Quarter feet eight inches</i>	<i>17 1/2</i>	<i>14</i>
" height extended at the Bilges ...	<i>47</i>	<i>44</i>	Shifts of Plating, and Stringers	<i>Two and three frame spaces</i>	
BEAMS, Upper, Spar, or Awning Deck	<i>5 3</i>	<i>5 3</i>	Gunwale Plate on ends of <i>Awning, Spar, or</i>	<i>40</i>	<i>8</i>
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron			Upper Deck Beams, breadth and thickness ...		
Single or double Angle Iron on Upper edge	<i>24</i>	<i>24</i>	Angle Iron on ditto ...	<i>4 x 4 x 9</i>	<i>4 x 4 x 9</i>
Average space ...	<i>24</i>	<i>24</i>	Tie Plates fore and aft, outside Hatchways		
BEAMS, Main, or Middle Deck	<i>6 3</i>	<i>6 3</i>	Diagonal Tie Plates on Beams No. of Pairs		
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron			Flat of Up., Spar, or Awning Dk. *		
Single or double Angle Iron, on Upper Edge	<i>24</i>	<i>24</i>	How fastened to Beams ...		
Average space ...	<i>24</i>	<i>24</i>	Stringer Plate on ends of Main or Middle Deck		
BEAMS, Lower Deck—In Oil Tanks	<i>9</i>	<i>9</i>	Beams, breadth and thickness ...	<i>40</i>	<i>10</i>
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	<i>4 4</i>	<i>4 4</i>	Is the Stringer Plate attached to the outside plating?	<i>Yes</i>	
Single or double Angle Iron on Upper Edge	<i>See Plans</i>		Angle Irons on ditto, No. <i>One</i> ...	<i>5 x 5 x 8</i>	<i>5 x 5 x 8</i>
Average space ...	<i>See Plans</i>		Tie Plates, outside Hatchways ...		
BEAMS, Hold, or Orlop—In Oil Tanks	<i>9</i>	<i>9</i>	Diagonal Tie Plates on Beams, No. of pairs		
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	<i>4 4</i>	<i>4 4</i>	Flat of Middle Deck* do. do.		
Single or double Angle Iron on Upper Edge	<i>See Plans</i>		How fastened to Beams		
Average space ...	<i>See Plans</i>		Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ...		
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates ...	<i>48</i>	<i>9</i>	Is the Stringer Plate attached to the outside plating?	<i>Yes</i>	
" Rider Plate ...			Angle Irons on ditto, No. ...		
" Bulb Plate to Intercoastal Keelson ...	<i>5 5</i>	<i>5 5</i>	Tie Plates, outside Hatchways ...		
" Angle Irons ...	<i>5 1/2</i>	<i>4 9</i>	Diagonal Tie Plates on Beams, No. of pairs		
" Double Angle Iron Side Keelson ...	<i>3 3</i>	<i>3 3</i>	Flat of Middle Deck* do. do.		
" Side Intercoastal Plate <i>full extent of Oil Tanks</i> ...	<i>3 3</i>	<i>3 3</i>	How fastened to Beams		
" do. Angle Irons ...	<i>3 3</i>	<i>3 3</i>	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ...		
" Attached to outside plating with angle iron	<i>3 3</i>	<i>3 3</i>	Is the Stringer Plate attached to the outside plating?	<i>Yes</i>	
BILGE Angle Irons <i>lower turn of Bilge</i> ...	<i>5 1/2</i>	<i>4 9</i>	Angle Irons on ditto, No. ...		
" do. Bulb Iron ...			Stringer or Tie Plates, outside Hatchways		
" do. Intercoastal plates riveted to plating for <i>length of Oil Tanks</i> ...		<i>8</i>	Flat of Lower Deck*		
BILGE STRINGER Angle Irons ...			Ceiling between Decks, thickness and material ...	<i>2 1/2</i>	<i>pine</i>
Intercoastal plates riveted to plating for <i>length</i> ...			" in hold do. do. ...	<i>None</i>	
SIDE STRINGER Angle Irons ...			Main piece of Rudder, diameter at head ...	<i>7</i>	<i>7</i>
			do. at heel ...	<i>3 1/2</i>	<i>3 1/2</i>

The FRAMES extend in one length from *Keel to Main Deck and from Main Deck to Spar Dk.*

The REVERSED ANGLE IRONS on floors and frames extend from middle line to *Main Deck* and to *Spar Deck* 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* in. diameter, averaging *3 1/2* ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets *7/8* in. diameter, averaging *3* ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked *clench*, double riveted; with rivets *7/8* in. diameter averaging *3 1/2* ins. from centre to centre.

" Butts of *all* Strakes at Bilge for *oil tanks* length, treble riveted, and *Butt Straps Lapped* thicker than the plates they connect.

" Edges from Bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets *7/8* in. diameter, averaging *3* ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked *clench*, 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 *1/2* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *1/2* length amidships.

" Butts of Main Stringer Plate, treble riveted for *1/2* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *1/2* length.

" Breadth of laps of plating in double riveting *5 1/4* Breadth of laps of plating in single riveting *✓*

Batt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *3 1/2* in. No. of Breasthooks, *4* on Deck. Crutches, *Deep floor*

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Good malleable quality.*

Manufacturer's name or trade mark, *Stockton Malleable I.C., Moss I.C., West-Stockton I.C., South-Stockton I.C., Lloyd's Register*

The above is a correct description.

Builder's Signature, *Graig Taylor & Co.* Surveyor's Signature, *Allan Wilson*

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



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 through butts.

Masts, Bowsprit, Yards, &c., are of Steel 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 These masts which are intended for auxiliary purposes only, have been constructed by Messrs. Hudson & Co. of Stockton, in accordance with the plan approved by the Committee (Secretary's Letter 24th Oct. 88) and the material, which is of good malleable quality, was manufactured by the Messrs. D. & L. Co. of Stockton, and has been tested as per Rule requirements.

Number for Equip-ment	CABLES, &c.		Test per Certificate.	Fathoms & Inches per Rule.	Machine where Tested and Name of Chain Maker.	ANCHORS.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Machine where Tested and Name of Anchor Maker.
	Number of Certificate.	Fathoms.				Number of Certificate (State if any and which Anchors are Stockless.)				
Letter for do. <u>S.</u>	<u>8134. 8135</u>	<u>270</u>	<u>113/16</u>	<u>57 1/2</u>	<u>52 3/4</u>	<u>270 1/2</u>	<u>40.2.0</u>	<u>36.2.2.0</u>	<u>40.0.0</u>	<u>40.0.0</u>
SAILS.	<u>Calipered</u>					<u>12249</u>	<u>40.2.0</u>	<u>36.2.2.0</u>	<u>40.0.0</u>	
	<u>Fore Sails,</u>					<u>2250</u>	<u>40.2.0</u>	<u>36.2.2.0</u>	<u>40.0.0</u>	
	<u>Fore Top Sails,</u>					<u>26861</u>	<u>27.1.16</u>	<u>26.15.0.0</u>	<u>27.1.0</u>	
	<u>Fore Topmast Stay Sails,</u>					<u>Stables</u>	<u>Drop</u>	<u>Stables</u>	<u>Drop</u>	
	<u>Main Sails,</u>					<u>Collective Weights</u>	<u>108.1.16</u>		<u>107.1.0</u>	
Main Top Sails, and quality	<u>Hempen Str'm Cable</u>	<u>75</u>	<u>4 1/4</u>	<u>35</u>	<u>75 1/4</u>	<u>Stream</u>	<u>126.28</u>	<u>10.2.14</u>	<u>12.10.3.21</u>	<u>10.2.0</u>
	<u>TOWLINE—Hemp or Steel Wire</u>	<u>90</u>	<u>4</u>	<u>33</u>	<u>90 1/4</u>	<u>Kedge</u>	<u>176.29</u>	<u>5.1.7</u>	<u>7.4.0.7</u>	<u>5.2.0</u>
	<u>Hawser</u>	<u>90</u>	<u>7 1/2</u>		<u>90 7/8</u>	<u>2nd Kedge</u>	<u>196.30</u>	<u>2.2.7</u>	<u>5.2.2.0</u>	<u>2.2.0</u>
	<u>Warp</u>	<u>Good</u>								

Standing and Running Rigging W. H. & Manilla sufficient in size and Good in quality. She has 2 Life Long Boats and 2 other  
The Windlass is Iron Patent Capstan Yes and Rudder Good Pumps Good  
Engine Room Skylights. How constructed? Iron House How secured in ordinary weather? Yes  
What arrangements for deadlights in bad weather? Dead lights  
Coal Bunker Openings. How constructed? Iron How are lids secured? Hatch Bars Height above deck? 16"  
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Open Bulwark  
Cargo Hatchways. How formed? all Iron. One Hatch 8 ft x 12 ft Hatches, If strong and efficient? Solid 2 1/2"  
State size Main Hatch Forehatch Quarterhatch Yes  
If of extraordinary size, state how framed and secured... What arrangement for shifting beams? Yes

Order for Special Survey No. 366 Date 19th March 89  
Order for Ordinary Survey No. 18 Date 18 in builder's yard.  
State dates of letters respecting this case 1st April 1889, 22nd June, 11th Oct, 22nd Oct, 12th Nov & 20th Nov 1889.  
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 }  
Built under Special Survey.  
First Survey 19th June 1889.  
Last 21st April 1890 Total No. of Visits 61

General Remarks (State quality of workmanship, &c.) This vessel which is a sister ship to the S.S. Petrolea, by the same Builders, is Spar Decked, and has been specially constructed for carrying Petroleum in bulk. She is built in accordance with the Rules and the tracings submitted to and approved by the Committee. The whole of the material used in the hull is of good malleable quality; the punching, countersinking and riveting have been well executed, and the cement (which is Portland and only laid before and about the Petroleum Tanks) well laid, firmly adhering to the several surfaces. The Petroleum Tanks have been tested by a head of water 12 feet above the top of the Tanks, and were found tight and in good order. A husband has been marked upon the vessel's side in conformity with that assigned to the sister vessel as follows: Width 6 ft 5 1/2, height 6 ft 2. Height of fresh water mark above center of Disc 5 1/4 inches.

How are the surfaces preserved from oxidation? Inside Portland Cement and paint forward and aft and between decks Outside Paint

Particulars for Record in R.B.—Length of Poop ft., R.Q.D. ft., Bridge Dk., ft., F'castle ft.; No. of Dks. (excluding spar, awn, &c.) One  
Material of dks. Iron If spar, awn dk., etc. Material of spar, awn dk., etc. Iron; No. of tiers of beams (with and without dks. laid) Four  
Official No. 100 A1; Signal Letters 100 A1  
I am of opinion this Vessel should be Classed 100 A1, Spar Decked, Carrying Petroleum in bulk.  
The amount of the Entry Fee £ 5 is received by me, Allison D. Wilson  
Special £ 81 : 14 : 6 29. 4. 1890  
(to be sent as per margin). Certificate ...  
Travelling Expenses, if any, £ 0  
Committee's Minute FRIDAY 2 MAY 1890  
Character assigned 100 A1 Spar Dk Carrying Petroleum in bulk  
+ Lmb 4/90  
a rep  
10k Iron Spar Dk Iron Web Frame