

STEEL IRON SHIP.

THURS 15 AUGUST 1889

(Received at London Office.)

No. *7607* Survey held at *West Hartlepool* Date, First Survey *20 Mar 89* Last Survey *7 Aug* 1889
On the *Steel Screw Steamer "Garlands"* Schooner Rig 2 Masts.

TONNAGE under Tonnage Deck <i>1626.69</i>	ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.	Master <i>Holman</i>
Ditto of Third, Spar, or Awning Deck. <i>239.08</i>	Half Breadth (moulded) <i>18.16</i>	Built at <i>West Hartlepool</i>
Ditto of Poop, or Raised Qr. Dk. <i>54.43</i>	Depth from upper part of Keel to top of Upper Deck Beams <i>22.00</i>	When built <i>1889</i> Launched <i>28 June 89</i>
Ditto of Houses on Deck <i>6.06</i>	Girth of Half Midship Frame (as per Rule) <i>36.50</i>	By whom built <i>W. Gray & Co. Ltd.</i>
Ditto of Forecastle Hatchways <i>37.69</i>	1st Number <i>76.66</i>	Owners <i>Hardy Wilson & Co.</i>
Gross Tonnage <i>2084.21</i>	1st Number, if 2 Decked Vessel deduct 7 feet	Residence <i>West Hartlepool</i>
Less Crew Space <i>56.34</i>	Length <i>268.5</i>	Port belonging to <i>West Hartlepool</i>
Less Engine Room <i>2027.87</i>	2nd Number <i>20583</i>	Destined Voyage <i>Mediterranean</i>
Register Tonnage as out on Beam <i>1860.92</i>	Proportions—Breadth to Length <i>7.39</i>	Surveyed while Building, Afloat, or in Dry Dock.
	Depths to Length—Upper Deck to Keel <i>12.20</i>	
	Main Deck ditto	

LENGTH on deck as per Rule	Feet. Inches.	BREADTH—Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams	Feet. Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
<i>268.6</i>		<i>36.4</i>		<i>20.0</i>		<i>160</i>		<i>One</i>	<i>One</i>
Dimensions of Ship per Register, length, <i>270.0</i> breadth, <i>36.5</i> depth, <i>20.0</i>									
KEEL, depth and thickness	<i>9 1/2 x 2 1/2</i>	Inches in Ship	<i>9 1/2 x 2 1/2</i>	Inches per Rule	<i>9 1/2 x 2 1/2</i>				
STEM, moulding and thickness	<i>9 x 2 1/2</i>		<i>9 x 2 1/2</i>		<i>9 x 2 1/2</i>				
STERN-POST for Rudder do. do.	<i>9 x 5 1/2</i>		<i>9 x 5 1/2</i>		<i>9 x 5 1/2</i>				
" for Propeller	<i>9 x 5 1/2</i>		<i>9 x 5 1/2</i>		<i>9 x 5 1/2</i>				
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>		<i>24</i>		<i>24</i>				
FRAMES, Angle Iron, for 1/2 length amidships	<i>5 3 8</i>	Inches in Ship	<i>5 3 8</i>	Inches per Rule	<i>5 3 8</i>				
Do. for 1/4 at each end	<i>5 3 7</i>		<i>5 3 7</i>		<i>5 3 7</i>				
REVERSED FRAMES, Angle Iron	<i>3 1/2 3 5 3 1/2 3 7 8</i>		<i>3 1/2 3 5 3 1/2 3 7 8</i>		<i>3 1/2 3 5 3 1/2 3 7 8</i>				
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>24</i>		<i>24</i>		<i>24</i>				
" thickness at the ends of vessel	<i>8.7</i>		<i>8.7</i>		<i>8.7</i>				
" depth at 3/4 the half-bdth. as per Rule	<i>12</i>		<i>12</i>		<i>12</i>				
" height extended at the Bilges	<i>48</i>		<i>48</i>		<i>48</i>				
BEAMS, Upper, Spar, or Awning Deck	<i>6 3 8</i>		<i>6 3 8</i>		<i>6 3 8</i>				
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper edge	<i>24</i>		<i>24</i>		<i>24</i>				
Average space	<i>24</i>		<i>24</i>		<i>24</i>				
BEAMS, Main, or Middle Deck									
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge	<i>3 1/2 3 7 3 1/2 3 7</i>		<i>3 1/2 3 7 3 1/2 3 7</i>		<i>3 1/2 3 7 3 1/2 3 7</i>				
Average space	<i>48</i>		<i>48</i>		<i>48</i>				
BEAMS, Lower Deck	<i>9 9 9 9</i>		<i>9 9 9 9</i>		<i>9 9 9 9</i>				
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge	<i>3 1/2 3 7 3 1/2 3 7</i>		<i>3 1/2 3 7 3 1/2 3 7</i>		<i>3 1/2 3 7 3 1/2 3 7</i>				
Average space	<i>48</i>		<i>48</i>		<i>48</i>				
BEAMS, Hold, or Orlop									
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge	<i>Webframes</i>		<i>Webframes</i>		<i>Webframes</i>				
Average space	<i>Intercostals</i>		<i>Intercostals</i>		<i>Intercostals</i>				
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	<i>18 13 18 13</i>		<i>18 13 18 13</i>		<i>18 13 18 13</i>				
" Rider Plate	<i>12 13 12 13</i>		<i>12 13 12 13</i>		<i>12 13 12 13</i>				
" Built Plate to Intercostal Keelson	<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>				
" Angle Iron	<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>				
" Double Angle Iron Side Keelson	<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>		<i>5 1/2 4 9 5 1/2 4 9</i>				
" Side Intercostal Plate	<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>				
" do. Angle Iron	<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>				
" Attached to outside plating with angle iron	<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>		<i>3 3 7 3 3 7</i>				
BILGE Angle Iron	<i>Webframes</i>		<i>Webframes</i>		<i>Webframes</i>				
" do. Bulb Iron	<i>Webframes</i>		<i>Webframes</i>		<i>Webframes</i>				
" do. Intercostal plates riveted to plating for length	<i>Intercostals</i>		<i>Intercostals</i>		<i>Intercostals</i>				
BILGE STRINGER Angle Iron	<i>Intercostals</i>		<i>Intercostals</i>		<i>Intercostals</i>				
Intercoastal plates riveted to plating for length	<i>Intercostals</i>		<i>Intercostals</i>		<i>Intercostals</i>				
SIDE STRINGER Angle Iron									

The FRAMES extend in one length from *centre line* to *gunwale* Riveted through plates with *7/8* in. Rivets, about *7* apart.

The REVERSED ANGLE IRONS on floors and frames extend from *middle line* to *Upper Deck* and to *Lower 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 1/8* in. diameter, averaging *5 1/8* 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 1/2* ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 1/6* ins. from centre to centre.

" Butts of all Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *3/40* 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 1/6* ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 1/6* ins. from cr. to cr.

" Edges of Main Sheerstrake, double or single riveted.

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

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

" Breadth of laps of plating in double riveting *6 1/2* Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? No. of Breasthooks, *8* Crutches, *4*

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Steel from Dorman Long & Co. Middlesbrough; and West Hartlepool Iron Co.*

Manufacturer's name or trade mark. *The above is a correct description.*

Builder's Signature, *W. Gray & Co. Limited* Surveyor's Signature, *W. Phillips*

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

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed, where practicable*
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, generally*
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*

Masts, Bowsprit, Yards, &c., are *Iron* 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 *The iron lower masts are of the scantlings &c. approved by the Committee, for the S.S. "Hambro", West Hpl 1st Entry Report No. 6655. The iron in these masts from the West Hartlepool Iron Co. have been tested as prescribed by the Rules & found satisfactory.*

NUMBER & LETTER for EQUIPMENT		22917	Test per Certificate.	Inches per Rule.	Machine where Tested and Number of Certificate.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wt. req'd per Rule.	Machine where Tested and Superintendent, also Number of Certificate.
SAILS.	Chain	270	134	55	19/2/89	Bower Anchors	1	30-1-14	28-180	1130-00	18339. 23/2/89
	Fore Sails,	76	11/6	206	75-1/16. 7506-28/1/89		2	30-1-24	29-000	030000	24744. 26/1/89
	Fore Top Sails,	8	1/16	206	75-1/16. 7506-28/1/89		3	25-3-2	25-10-1	25-2-0	24776. 4/2/89
	Fore Topmast Stay Sails,	90	3 1/2	26	75-1/16. 7506-28/1/89		4	25-3-2	25-10-1	25-2-0	24776. 4/2/89
	Main Sails,	90	3 1/2	26	75-1/16. 7506-28/1/89		5	25-3-2	25-10-1	25-2-0	24776. 4/2/89
	Main Top Sails, and	90	3 1/2	26	75-1/16. 7506-28/1/89		6	25-3-2	25-10-1	25-2-0	24776. 4/2/89
	quality	90	3 1/2	26	75-1/16. 7506-28/1/89		7	25-3-2	25-10-1	25-2-0	24776. 4/2/89
CABLES, &c.		270	134	55	19/2/89	Stream Anchor		1	9-3-0	115-2-14	9-2-0 14778. 4/2/89
Iron Stream Chain		270	134	55	19/2/89	Kedge		1	9-3-0	115-2-14	9-2-0 14778. 4/2/89
or Hempen Strm Cable		270	134	55	19/2/89	2nd Kedge		1	9-3-0	115-2-14	9-2-0 14778. 4/2/89
Towline, Hemp.		270	134	55	19/2/89						
or Steel Wire		270	134	55	19/2/89						
Hawser		270	134	55	19/2/89						
Warp		270	134	55	19/2/89						

Standing and Running Rigging *Wire & Manilla* sufficient in size and *good* in quality. She has *2* Long Boats and *2* life boats.
The Windlass is *Iron* *Good* and Rudder *Good* Pumps *Good*
Engine Room Skylights. How constructed? *of Steel & Iron* How secured in ordinary weather? *By slide bars.*
What arrangements for deadlights in bad weather? *Strong steel shutters with strong bulls' eyes.*
Coal Bunker Openings. How constructed? *of Iron* How are lids secured? *2 1/2" latches* Height above deck?
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *On each side; Forward, 2 Ports each 33x18" - 13" up; and Aft, 3 Ports each 24x12"*
Cargo Hatchways. How formed? *of Iron plates & angles.*
State size Main Hatch *22-0x13-2x21 1/2"* Forehatch *15-11x13-4x3-0"* Quarterhatch *22-0x13-2x25"*
If of extraordinary size, state how framed and secured?
What arrangement for shifting beams? *Deep web plates fore & aft carlins, as per Rule.*
Hatches, If strong and efficient? *3" & 2 1/2" thick. Yes.*

Order for Special Survey No. *1352* Date *Mar 18. 1889.*
Order for Ordinary Survey No. *368* Date *7 Aug. 1889.*
No. *368* in builder's yard.
State dates of letters respecting this case *29 Mar 88, and 12 Apr. 88.*
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

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the approved tracings, now in the London office; and the amendments per letter of the 29/3/88, carried out viz:—Girders in tanks 3ft apart; Bridge deck stringer plate 9/16" thick; bridge deck beams 6/16x3x9/16 per letter 12/4/88, lower deck beams in after hold between Lathways at web frames 10x9/16; deck plating increased in thickness in way of deck openings; & Margin plates of tank. The whole of the steel used in the hull, has been tested as prescribed by the Rules, & the Rules in regard to annealing & countersinking complied with. The workmanship throughout is of a good quality. The Freeboards assigned by the Committee, in the Secretary's letter of the 29 Mar 1888 for the Sister Vessel "Marie" West Hpl 1st Entry Report No. 7137, have been marked on the vessel's sides viz:—Summer Freeboard 1-10.*

Winter — " — 2-1. To Gray Co. Limerick
Fresh Water — " — 1-5 1/2 To Gray Derricks
& Freeboards to be recorded in the Register Book.

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, forecabin, or raised quarter deck. (If double bottom, state particulars on separate form.)
How are the surfaces preserved from oxidation? Inside *by paint & Portland Cement* Outside *by paint.*
I am of opinion this Vessel should be Classed *100 A1. Steel.*

The amount of the Entry Fee£ *5* : : is received by me, *H. D.*
Special£ *44* : 2 : *13. 8 1889*

(to be sent as per margin). Certificate ...
(Travelling Expenses, if any, £ ...).
Committee's Minute
Character assigned *100 A1 Steel*
A + CP
+ 2 MC 889
100 A1 Steel
Well deck
Record Freeboard
FRIDAY 16 AUGUST 1889
Surveyor to Lloyd's Register of British and Foreign Shipping.
It is submitted that this vessel appears eligible to be classed 100 A1 (Steel) as recommended by the Committee.
H. B. Phillips
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