IRON SHIP.

(Received at London Office) Rec'd 1st May 1884

No. 5476 Survey held at West Hartlepool Date, First Survey 30th October 1883 Last Survey 26th April 1884

On the Iron Screw Steamer "Merfulis" Yard No. 284 (46 Visits)

Official No. not assigned.

TONNAGE under Tonnage Deck	1166.59
Ditto of Third, Spar, or Awning Deck	143.15
Ditto of Poop, or Raised Qr. Dk. Hatchway	94.52
Ditto of Houses on Deck	17.45
Ditto of Forecastle	3.41
Gross Tonnage	36.36
Less Crew Space	1521.89
	54.20
	1467.69
Less Engine Room	487.00
Register Tonnage as cut on Beam	980.69

~~ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.~~

	Feet.
Half Breadth (moulded)	17.40
Depth from upper part of Keel to top of Upper Deck Beams	18.63
Girth of Half Midship Frame (as per Rule)	31.83
1st Number	67.86
~~1st Number, if a 3-Decked Vessel .. deduct 7 feet~~	
Length	243.75
2nd Number	165.40
Proportions— Breadths to Length	7
Depths to Length—Upper Deck to Keel	13.07
Main Deck ditto	

Master F. Young

Built at West Hartlepool

When built 1884 Launched 13/3/84

By whom built W. Gray & Co.

Owners Marshall, Dodson & Co.

Residence Leith

Port belonging to Leith

Destined Voyage Not fixed

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

LENGTH on deck as per Rule	Feet.	Inches.	BREADTH— Moulded	Feet.	Inches.	DEPTH top of Floors to Upper Deck Beams / Do. do. Main Deck Beams	Feet.	Inches.	Power of Engines	Horse.
	243	9		34	9½		16	11		99

N°. of Decks with flat laid One Iron
N°. of Tiers of Beams One

Dimensions of Ship per Register, length, 247.5 breadth, 35' depth, 17'

Depth moulded 17'-8½

	Inches in Ship.			Inches per Rule.		
KEEL, depth and thickness	8 × 2½			8 × 2½		
STEM, moulding and thickness	8 × 5			8 × 5		
STERN-POST for Rudder do. do.	8 × 5			8 × 5		
" " for Propeller	23			23		
Distance of Frames from moulding edge to moulding edge, all fore and aft				(Class 100 A)		
	Inches. In Ship.	Inches. In Ship.	16ths. In Ship	Inches per Rule	Inches per Rule	16ths per Rule
FRAMES, Angle Iron, for ⅗ length amidships	4	3	7	4	3	7
Do. for ⅕ at each end	4	3	6	4	3	6
REVERSED FRAMES, Angle Iron	3	3	6	3	3	6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	20½	—	8	20½	—	8
" thickness at the ends of vessel	—	—	7	—	—	7
" depth at ¾ the half-bdth. as per Rule	10¼	—	—	10¼	—	—
" height extended at the Bilges	Twice amidships depth					
BEAMS, Upper, ~~Spar, or Awning~~ Deck Single ~~or d'ble~~ Ang. Iron, ~~Plate or Tee~~ Bulb Iron	6	3	8	6	3	8
Single ~~or double~~ Angle Iron on Upper edge	5	3½	8	5	3½	8
Average space		23			23	
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	—	—	—	—	—
Single, or double Angle Iron, on Upper Edge	—	—	—	—	—	—
Average space	—	—	—	—	—	—
BEAMS, Lower Deck— Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	—	—	—	—	—
Single or double Angle Iron on Upper Edge	—	—	—	—	—	—
Average space	—	—	—	—	—	—
BEAMS, Hold, or Orlop— Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	9½	9	—	9½	9
Single or double Angle Iron on Upper Edge	4	4	8	4	4	8
Average space		as Profile				
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	—	14	12	—	12	12
" Rider Plate	—	11	12	—	11	12
" Bulb Plate to Intercostal Keelson	—	—	—	—	—	—
" Angle Irons	5	3½	9	5	3½	9
" Double Angle Iron Side Keelson	5	3½	9	5	3½	9
" Side Intercostal Plate	—	—	8	—	—	8
" do. Angle Irons	—	—	—	—	—	—
" Attached to outside plating with angle iron	3	3	7	3	3	7
BILGE Angle Irons	5	3½	9	5	3½	9
" do. Bulb Iron	—	8½	8	—	8½	8
" do. Intercostal plates riveted to plating for ..... length	—	—	—	—	—	—
BILGE STRINGER Angle Irons	5	3½	9	5	3½	9
Intercostal plates riveted to plating for ..... length	—	—	—	—	—	—
SIDE STRINGER Angle Irons in after part	5	3½	9	5	3½	9

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule	16ths. per Rule
Flat Keel Plates, breadth and thickness	34	15	34	15
PLATES in Garboard Strakes, br'dth & thickness	—	11	—	11
" From Garboard to upper part of Bilges	—	9.10	—	9.10
" Of d'bling at Bilge, or increased thickness, and length applied half	Three Strakes increased 7			
" From up. prt of Bilge to lr. edge of Sh'rstrake	—	9.10	—	9.10
" Main Sheerstrake, breadth and thickness	36	13	36	13
" Of d'blng at Sh'stk. & lng. applied 35	30	9	30	9
" From M'n. to Upr. or Spar Dk. Sh'rstrake	—	—	—	—
" Up. or Spar Dk Sh'rstrake, brdth & thickn'ss	—	—	—	—
Butt Straps to outside plating, breadth & thickness	9½	10	9½	10
Lengths of Plating	4 Sec	9 Sec	6 Frames	
Shifts of Plating, and Stringers	Two & Three			
Gunwale Plate on ends of ~~Awning, Spar, or~~ Upper Deck Beams, breadth and thickness	35	10	35	10
Angle Iron on ditto	5 × 3½	9	5 × 3½	9
Tie Plates fore and aft, outside Hatchways	—	—	—	—
Diagonal Tie Plates on Beams No. of Pairs	—	—	—	—
Flat of Up., Spar, or Awning Dk.* Iron Plates	—	6	—	6
How fastened to Beams Rivets	—	10	—	10
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	—	—	—	—
Flat of Middle Deck* do. do.	—	—	—	—
How fastened to Beams	—	—	—	—
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	31	9	31	9
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. Three & Four	4½ × 4½	8	4½ × 4½	8
Stringer or Tie Plates, outside Hatchways	3½	9	—	—
Flat of Lower Deck*	—	—	—	—
Ceiling betwixt Decks, thickness and material	2" Pine Battens			
" in hold do. do.	2½	—	—	—
Main piece of Rudder, diameter at head	5¾	—	5¾	—
do. at heel	3	—	3	—
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. Four No. per Rule Four	—	—	—	—
" Thickness of 6/5	—	—	—	—
" Height up Two to Upper Deck one to Bridge Deck and one to Cabin Top	—	—	—	—
" How secured to sides of ship between double frames	—	—	—	—
" Size of Vertical Angle Irons 3 × 3 × ⅜ and distance apart 31 ins.	—	—	—	—
" Are the outside Plates doubled two spaces of Frames in length? Yes	—	—	—	—

State clearly where plating is of alternate thicknesses—as distinguished from diminished thickness at ends of vessel.

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

The **FRAMES** extend in one length from Keel to Gunwale Riveted through plates with ¾ in. Rivets, about 6 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to above Hold Stringer and to Upper 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 4½ ins. from centre to centre.

" **Edges of Garboards** and to upper part of Bilge, worked clencher, double riveted; with rivets ¾ in. diameter, averaging 3¾ ins. from centre to centre.

" **Butts from Keel to turn of Bilge,** worked carvel, double riveted; with rivets ¾ in. diameter averaging 3 × 3½ ins. from centre to centre.

" **Butts** of Three Strakes at Bilge for half length, treble riveted with Butt Straps thicker than the plates they connect.

" **Edges from Bilge to Main Sheerstrake,** worked clencher, double ~~or single~~ riveted; with rivets ¾ in. diameter, averaging 3¼ ins. from cr. to cr.

" **Butts from Bilge to Main Sheerstrake,** worked carvel, double riveted; with rivets ¾ in. diameter, averaging 3 × 3½ 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 half length amidships. ~~Butts of Upper or Spar Sheerstrake, treble riveted length amidships.~~

" ~~**Butts of Main Stringer Plate,** treble riveted for length amidships.~~ **Butts of Upper or Spar Stringer Plate,** treble riveted for half length.

" Breadth of laps of plating in double riveting 4½ Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & Double No. of Breasthooks, Six Crutches, Three

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates Darlington Bolt & Nut Co.

Manufacturer's name or trade mark, Angles Forman Long & Co Bolts Stockton Malleable Iron Co Forgings: Stockton Forge Co

The above is a correct description.

Builder's Signature, W. Gray & Co *Surveyor's Signature,* [illegible]

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

(Form No. 1 for Iron Ships—4000—/1/82.)

ROBERT EDMUND TAYLOR & SON Commercial and General Steam Printers, 19, Old Street, Goswell Road, E.C., London.

ST+910-0154

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Workmanship. Are the butts of plating planed or otherwise fitted? Planed

Do the edges of the carvel work and of the butts fay 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 at the butts only

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Masts, ~~Bowsprit~~, Yards, &c., are Iron & Wood in Good condition, and sufficient in size and length. *If of Iron or Steel give Scantlings, 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 Material and if stamped with Maker's name.*

State also Length and Diameter of Lower Masts and Bowsprit Please see Sketch attached hereto

Samples of the plates of which these masts are constructed have been tested and withstood the tests prescribed by the Rules

NUMBER for EQUIPMENT 18194

SAILS. N°.		CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntdt.
		Chain ..... (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	270	1 9/16	61 7/10 439/16	270-1 9/16	17/1/84
	Fore Sails,		45	1	27. 18	45-1	17/1/84
	Fore Top Sails,	Iron Stream Chain or Steel Wire ..	Tested at R.W.C.P.T. by J. Hartness				
	Fore Topmast Stay Sails,	or Hempen Strm Cable					Certificates by makers Messrs Sullivant &c.
		Towline, Hemp.	90	3 1/4	22	90-10	
	Main Sails,	or Steel Wire ..	100	8 1/2		100-8	
		Hawser	90	6		90-6	
	Main Top Sails,	Warp	180	5			
	and	quality Good	120	4 1/2			

ANCHORS.	N°.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntdt.
Bower Anchors (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	3018	23-3-7	23-15-2 1/4	23-2-0	15/1/8
	3017	23-2-0	23-10-1 1/4	23-2-0	15/1/8
	3074	20-1-14	21-1-2 1/4	20-0-0	4/1/8
		Tested at R.W.C.P.T. by J. Hartness			
Stream Anchor	12965	8-0-14	10-5-0-0	8-0-0	3/1/8
Kedge ...	12967	4-0-7	6-10-0-0	4-0-0	4/1/8
2nd Kedge ...	12842	2-0-21	4-15-0-0	2-0-0	4/12/

Standing and Running Rigging G.S. Wire & Hemp sufficient in size and Good in quality. She has two Long Boat and one other

The Windlass is Napier Bros Steam patent Capstan Four & Winch and Rudder Good Pumps Two

Engine Room Skylights.—How constructed? Iron How secured in ordinary weather? Hand Screws

What arrangements for deadlights in bad weather? Iron flaps with bulls eyes

Coal Bunker Openings.—How constructed? Iron How are lids secured? Hatch bars Height above deck? 33 & 16"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Scuppers, Ports and Mooring Pipes

Cargo Hatchways.—How formed? Iron plates and angles in the usual manner

State size **Main Hatch** 19'-2" × 12'-0" Forehatch 11'-6" × 10'-0" Quarterhatch 17'-2" × 12'-0" & 21'-0" × 12

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? Wet plate beams, wood fore and afters

Hatches, If strong and efficient? 2½ Fir Solid

Order for Special Survey No. 1143
Date 29th Dec. 1883
Order for Ordinary Survey No.
Date
No. 287 in builder's yard.

DATES of Surveys held while building as per Section 18.

1st. On the several parts of the frame, when in place, and before the plating was wrought } First Survey 30th October 1883
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.. } Last Survey 26th April 188
5th. After the ship was launched and equipped

State dates of letters respecting this case 28th July and 31st August 1883

General Remarks (State quality of workmanship, &c.) The workmanship throughout is good

This vessel has been built in accordance with accompanying approved tracings of Midship Section and Profile and in general conformity with the rules for the contemplated grade.

She has a double bottom in the Fore and After Holds and the Peaks are constructed as trimming tanks (for dimensions &c. see form attached) the whole of these have been pressed in the usual manner and made efficient.

She is constructed with a Forecastle, Bridge, Raised Quarter Deck and Poop of the following respective lengths 37', 60', 67' and 27½'

She has a Bilge Keel formed of bulb iron 9"×2½" attached to the shell plating with double angle irons 4"×4"×9/16" for a length of 102 feet amidships

J. Gray Jr

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint

I am of opinion this Vessel should be Classed ✠ 100 A 1 (Two Deck rule) A & C.C.

The amount of the Entry Fee .....£ 4 : 0 : 0 is received by me, 28-4-1884

Special .....£ 61 : 13 : 6

(to be sent as per margin). Certificate ... " : " : "

(Travelling Expenses, if any, £ ✓).

Jesse Williams

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

Committee's Minute FRIDAY 2 MAY 1884 18

Character assigned 100 A 1 Two Deck Iron

Reference should be made to any correspondence connected with the case.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

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