

IRON SHIP.

No. 444 Survey held at Dunbarton Date, First Survey 4th Dec 1876 Last Survey 16th May 1877
 On the Ship Tilthurst Master F. J. Blake

TONNAGE under Tonnage Deck 1470.27 **ONE, OR TWO DECKED, THREE DECKED VESSEL.**
~~SPAR, OR AWNING DECKED VESSEL.~~
 Ditto of Third, Spar, or Awning Deck. 69.75 **HALF BREADTH** (moulded) 19.39
 Ditto of Poop, or Raised Or. Dk. 20.00 **DEPTH** from upper part of Keel to top of Upper Deck Beams 25.45
 Ditto of Houses on Deck 20.00 **GIRTH** of Half Midship Frame (as per Rule) 39.21
 Ditto of Forecastle 1509.02 **1st NUMBER** 84.75
 Gross Tonnage 1509.02 **1st NUMBER, if a THREE DECKED VESSEL** [deduct 7 feet]
 Less Crew Space 42.07 **LENGTH** 229
 Less Engine Room 1520.95 **2nd NUMBER** 1910
 Register Tonnage as cut on Beam 1520.95 **PROPORTIONS**—Breadths to Length 8.9
 Depths to Length—Upper Deck to Keel 8.9
 Main Deck ditto 8.9

Built at Dunbarton
 When built 1877 Launched 15th May
 By whom built W. R. Price & Son
 Owners W. R. Price & Son
6A Austin Friars London
 Port belonging to London
 Destined Voyage Ind.
 Is Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 229 **BREADTH**—Moulded 30.79 **DEPTH** top of Floors to Upper Deck Beams 23.37 **Power of Engines** 10 **Horse.** 10
 N^o. of Decks with flat laid 2
 N^o. of Tiers of Beams 2

Dimensions of Ship per Register, length, 229.1 breadth, 30.2 depth, 22.95

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL , depth and thickness	12 x 2 1/2	9 1/2 x 2 1/2	FLAT KEEL PLATES , breadth and thickness	36	12
STEM , moulding and thickness	12 x 2 1/2	9 x 2 1/2	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	11.10	11.10
STERN POST for Rudder do. do.	9 x 2 1/2	9 x 2 1/2	of doubling at Bilge, or increased thickness, and length applied	12.11	12.11
for Propeller	24	24	fm up. part of Bilge to l. edge of Sh'rstrake	11.10	11.10
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	Main Sheerstrake , breadth and thickness	40	13
FRAMES , Angle Iron, for 1/2 length amidships	5 3/4	5 3/4	of d'bling at Sh'rstrake, & length applied		
Do. for 1/2 at each end	5 3/4	5 3/4	from Mn. to Up. or Spar Dk. Sh'rstrake.		
REVERSED FRAMES , Angle Iron	3 1/2	3 1/2	Up. or Spar Dk. Sh'rstrake, brdth & thickness		
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	27	10	Butt Straps to outside plating, breadth & thickness	16 1/2	9 1/4
thickness at the ends of vessel	13 1/2	13 1/2	Lengths of Plating	6 frames	
depth at 1/2 the half-bdth. as per Rule	50	50	Shifts of Plating, and Stringers	2 frames	
height extended at the Bilges	9 1/2	9 1/2	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	40	10
BEAMS , Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2	3 1/2	Angle Iron on ditto	5 1/2	4.9
Single or double Angle Iron on Upper edge	40	40	Tie Plates fore and aft, outside Hatchways	13	10
Average space	40	40	Diagonal Tie Plates on Beams No. of Pairs, 2	13	10
BEAMS , Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9 1/2	9 1/2	Planksheer material and scantling	Free Margin, blank	
Single or double Angle Iron on Upper Edge	3 1/2	3 1/2	Waterways do. do. <u>Quarter Waterway</u>	4	4
Average space	40	40	Flat of Upper Deck do. do. <u>Quarter</u>		
BEAMS , Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9 1/2	9 1/2	How fastened to Beams <u>Quarter</u>		
Single or double Angle Iron on Upper Edge	3 1/2	3 1/2	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness		
Average space	40	40	Is the Stringer Plate attached to the outside plating?		
KEELSONS Centre line, single or double plate, box, or intercostal Plates	10	13	Angle Irons on ditto, No. 2	4	4
" Rider Plate	12	13	Stringer or Tie Plates, outside Hatchways	13	9
" Bulb Plate to Intercostal Keelson	5 1/2	4	Flat of Lower Deck		
" Angle Irons	5 1/2	4	Ceiling betwixt Decks, thickness and material		
" Double Angle Iron Side Keelson	5 1/2	4	in hold do. do. <u>2 1/2</u>		
" Side Intercostal Plate	5 1/2	4	Main piece of Rudder, diameter at head	6 1/2	6 1/2
" do. Angle Irons	5 1/2	4	do. at heel	3 1/2	3 1/2
" Attached to outside plating with angle iron	3 1/2	3 1/2	Can the Rudder be unshipped afloat?	Yes	
BILGE Angle Irons	5 1/2	4	Bulkheads No. 1 Thickness of	1 1/16	
" do. Bulb Iron	5 1/2	4	Height up	Upper deck	
" do. Intercostal plates riveted to plating for length	5 1/2	4	How secured to sides of ship	Double frames	
BILGE STRINGER Angle Irons	5 1/2	4	Size of Vertical Angle Irons	3 1/2	3 1/2
Intercostal plates riveted to plating for length	5 1/2	4	and distance apart	30 ins.	
SIDE STRINGER Angle Irons	5 1/2	4	Are the outside Plates doubled two spaces of Frames in length?	Yes	

Transoms, material. Knight-heads. Hawse Timbers. Iron castings
 Windlass Greenheart Pall Bitt Iron

The **FRAMES** extend in one length from Keel to Gunwale Riveted through plates with 5/8 in. Rivets, about 6 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to Deck stringer and to alt

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 1/4 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 5/8 in. diameter, averaging 3 1/2 ins. from

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 5/8 in. diameter averaging 3 1/4 ins. from

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

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 5/8 in. diameter, averaging 3 1/4 ins. from

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 5/8 in. diameter, averaging 3 1/4 ins. from

Iron 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 half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length

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

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part treble the rest double

Waterway, how secured to Beams Gutter Waterway (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Angled bracket knees No. of Breasthooks, five Crutches, four

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Merne Coats Glasgow best

Manufacturer's name or trade mark, Merne Coats Glasgow best

The above is a correct description.

Builder's Signature, W. R. Price & Son Surveyor's Signature, W. R. Price & Son

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

180472-0026

Workmanship. Are the butts of plating planed or otherwise fitted? *planed & true for practicability*
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *they do*
Are the fillings between the ribs and plates solid single pieces? *they are*
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *they do*
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *they are*
Do any rivets break into or through the seams or butts of the plating? *very few these at corners of butts*

18438 Iron

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

Foremast 25' 4" x 30" 7/16" thick 3 plates in section
Main Mast 26' 4" x 30" 7/16" thick 3 plates in section
Mizzen Mast 20' 4" x 20" 6/16" thick 3 plates in section
Bowsprit 24' 9" x 31" 5/16" thick 3 plates in section
Butts lapped and treble riveted. edges double riveted. With 3 angle bars in each for double length 4 x 3 x 7/16 in. Foremast 4 x 3 x 7/16 in Mizzen and 4 x 4 x 7/16 in Bowsprit. Board of iron Glasgow bark, tested & approved by B test

NUMBER for EQUIPMENT 20701

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
2	Fore Sails,	Chain	133. 24	1 3/4	63 1/2	270 1 1/16	63 1/2	Bowers	11030	33. 0 19	52. 10. 1. 0	34	31 1/2
	Fore Top Sails,		134. 4					R 11029	33. 3. 22	51. 12. 2. 0		34	31 1/2
	Fore Topmast Stay Sails	Hmpn Strm Cbl	270					11046	29. 0. 18	20. 0. 1. 0		29	27 1/2
	Main Sails,	Hawser ...	90	1		90 1							
	Main Top Sails,	Towlines ...		13		10		Stream		13. 2. 12		13 1/2	
	and	Warp ...		9 1/2		6		Kedges		6. 3. 22		6 1/2	
		quality 3000		7						3. 1. 0		3 1/2	

Standing and Running Rigging *Woolen* sufficient in size and *good* in quality. She has *2 life* Long Boats and *2* others

The Windlass is *Good* Capstans *2* and Rudder *Good* Pumps *Good*

Engine Room Skylights. How constructed?

How secured in ordinary weather?

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed?

How are lids secured?

Height above deck?

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

Scuppers 5 ports and 3 moving pipes on each side

Cargo Hatchways.—How formed? *16' x 12' main hatch. With the web framed with plates and angle bars*

State size Main Hatch *16' x 12'* Forehatch *8' x 5' 8"* Quarterhatch *8' x 6'*

If of extraordinary size, state how framed and secured? *Iron arched shifting beam in main hatch*

What arrangement for shifting beams?

Hatches, If strong and efficient? *yes*

Order for Special Survey No. *1218*

Date *June 15/96*

Order for Ordinary Survey No. *207*

Date *May 18/97*

No. *207* 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 *Dec 4. 7. 11. 14. 18. 1876*
- 2nd. On the plating during the process of riveting *Jan 15. 22. 23. 29. Feb 2. 6. 9. 13. 16. 23. 27*
- 3rd. When the beams were in and fastened, and before the decks were laid ... *Mar 2. 6. 9. 13. 16. 20. 23. 27. Apr 3. 5. 9. 12. 16*
- 4th. When the ship was complete, and before the plating was finally coated or cemented. *19. 23. 26. May 3. 7. 10. 14. 16. 1877*
- 5th. After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.)

The workmanship is good. She is built in accordance with the accompanying approved midship section.

Foremast lower yards 24' in length by 21" diam. 6 1/2" thick. Edges single riveted butts
Foremast lower sprail 25' 10" 4 1/2" thick. Lapped and treble riveted
Mizzen lower yards 20' 17" With 3 angle bars in each yard
" lower sprail 20' 14" 3 1/2" thick. In whole, 3/4 and 1/2 length as approved by the Committee in their letter of 16th Jan 1877. The angle bars in the lower yards 3 x 2 x 7/16. Lower sprail yards 2 1/2 x 2 1/2 x 7/16. Mizzen lower sprail yards 2 x 2 x 7/16

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

I am of opinion this Vessel should be Classed **100A1*

The amount of the Entry Fee ... £ 5 : : : is received by me, *16th May 1877*

Special ... £ 63 : 3 : 6 May 1877

Certificate ... *Printed*

Travelling Expenses, if any, £ 8 : 8 : 0

Committee's Minute *18th May 1877*

Character assigned *100 A 1*

DPW A & Co

