

# IRON SHIP.

No. 4024 Survey held at Dundee Date, First Survey 14 April Last Survey 29 Nov 1876

in the Bk. "Arthurstone" Master Jas. Peters.

Built at Dundee.

When built 1876 Launched 18th Dec 76

By whom built Gourlay Bros & Co.

Owners D. Bruce & Co.

Port belonging to Dundee.

Destined Voyage S. Francisco

If Surveyed while Building, Afloat, or in Dry Dock. While Building and afloat.

FACE under of Poop, or of Houses on Deck	1082-16	ONE, OR TWO DECKED, THREE DECKED VESSEL.
Third, Spar, Lining Deck.	81-56	SPAR, OR AWNING DECKED VESSEL.
Ditto of Forecastle	16-52	HALF BREADTH (moulded) ... .. 17-5
Gross Tonnage	38-96	DEPTH from upper part of Keel to top of Upper Deck Beams ... .. 23-25
Net Tonnage	1219-20	GIRTH of Half Midship Frame (as per Rule) ... .. 35-0
Net Crew Space	56-26	1st NUMBER ... .. 75-75
Engine Room	1162-94	1st NUMBER, if a THREE-DECKED VESSEL (deduct 7 feet)
Net on Beam		LENGTH ... .. 218-75
		2nd NUMBER ... .. 16540
		PROPORTIONS—Breadths to Length under 7/38th
		Depths to Length—Upper Deck to Keel ... .. 10 Depths
		Main Deck ditto ... ..

LENGTH	Feet. Inches.	BREADTH	Feet. Inches.	DEPTH	Feet. Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
Deck as per Rule	218 9	Moulded	35 0	top of Floors to Upper Deck Beams	21 3 1/2			Two	Two
Dimensions of Ship per Register, length, 230-6 breadth, 35-1 depth, 21-26									

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	8 x 2 3/4	8 1/2 x 2 1/2
KEEL, moulding and thickness	8 x 2 1/2	8 x 2 1/2
KEEL POST for Rudder do. do.	8 x 2 1/2	8 x 2 1/2
for Propeller		
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23
FRAMES, Angle Iron, for 1/2 length amidships	5 3 8	5 3 8
Do. for 1/4 at each end	7	7
REVERSED FRAMES, Angle Iron	3 3 7	3 3 7
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	23 1/2 x 9	23 1/2 x 9
thickness at the ends of vessel	8.7	8.7
depth at 1/2 the half-bdth. as per Rule	12	11 3/4
height extended at the Bilges	47	47
BEAMS, Upper, Spar, or Awning Deck	8 x 8	8 x 8
Single or double Angle Iron, Plate or Tee Bulb Iron	3 3 6	3 3 6
Single or double Angle Iron on Upper edge	46	46
Average space		
BEAMS, Main, or Middle Deck	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7
Single, or double Angle Iron, on Upper Edge	46	46
Average space		
BEAMS, Lower Deck, Hold, or Orlop	16 1/2 x 12	16 x 12
Single or double Angle Iron, Plate or Tee Bulb Iron	10 3/4 x 12	10 3/4 x 12
Double Angle Iron on Upper Edge	5 3 1/2 9	5 3 1/2 9
space		
Centre line, single or double plate, box, or Intercostal, Plates	5 3 1/2 8	5 3 1/2 8
Under Plate	5 3 1/2 9	5 3 1/2 9
Bulb Plate to Intercostal Keelson	5 3 1/2 9	5 3 1/2 9
Angle Irons	3 3 7	3 3 7
Double Angle Iron Side Keelson	5 3 1/2 9	5 3 1/2 9
Side Intercostal Plate	5 3 1/2 9	5 3 1/2 9
do. Angle Irons	5 3 1/2 9	5 3 1/2 9
Attached to outside plating with angle iron	5 3 1/2 9	5 3 1/2 9
LOWER DECK Angle Irons	5 3 1/2 9	5 3 1/2 9
do. Bulb Iron		
do. Intercostal plates riveted to plating for length	5 3 1/2 9	5 3 1/2 9
LOWER STRINGER Angle Irons		
Intercostal plates riveted to plating for length		
MIDDLE STRINGER Angle Irons		

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
Flat Keel Plates, breadth and thickness	34	11	34	11
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	2	1/2	7 1/2	9 1/2
fm up. part of Bilge to lr. edge of Sh'rstrake				
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness	36	12	36	12
Butt Straps to outside plating, breadth & thickness	10 1/4	16 3/4	9 3/4	11 1/2
Lengths of Plating	11.6		9.7	
Shifts of Plating, and Stringers	3 and 2 spaces of frs.		2 spaces	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	42	10	42	10
Angle Iron on ditto	5 x 3 1/2 x 9		5 x 3 1/2 x 9	
Tie Plates fore and aft, outside Hatchways	12	10	12	10
Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling				
Waterways do. do.	Gutter		4	8
Flat of Upper Deck do. do.	4		8	
How fastened to Beams	Sci. Bolts			
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	31	9	31	9
Is the Stringer Plate attached to the outside plating?	Yes.		20	6
Angle Irons on ditto, No.	4 x 4 x 8 1/6		4 x 4 x 8 1/6	
Stringer or Tie Plates, outside Hatchways	12	10	12	10
Flat of Lower Deck	3			
Ceiling betwixt Decks, thickness and material	2 pine battens		2 1/2	
in hold do. do.	2 1/2 R.P.		2 1/2	
Main piece of Rudder, diameter at head	5 1/2		5 1/2	
do. at heel	3		3	
Can the Rudder be unshipped afloat?	Yes.			
Bulkheads No. One Thickness of			6.5.	6.5
Height up	upper deck.			
How secured to sides of ship	double angle iron frames.			
Size of Vertical Angle Irons	3 x 3 x 1/6			30 ins.
And distance apart				
Are the outside Plates doubled two spaces of Frames in length?	Yes.			

Transoms, material. Knight-heads. Hawse Timbers. Plates & angles Iron. Harpell's Patent.

The FRAMES extend in one length from Centre line to fore part of upper deck on and to all frames alternately

The REVERSED ANGLE IRONS on floors and frames extend from the middle line to upper deck on and to all frames 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 1/8 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 1/8 in. diameter, averaging 3 3/4 ins. from centre to centre.

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

Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/8 thicker than the plates they connect.

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

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1/8 in. diameter, averaging 3 3/4 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 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 diam Breadth of laps of plating in single riveting 3 1/2 diam treble and double.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and double.

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

Beams of the various Decks, how secured to the sides? Knees turned & solid welded No. of Breasthooks, 5 Crutches, 4

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

Manufacturer's name or trade mark, Bulb Iron from J. & S. Co. angles, Shackleton, malleable iron from J. & S. Co. plates, J. & S. Co. Shell plates, J. & S. Co.

The above is a correct description.

Builder's Signature, Gourlay Bros & Co. Surveyor's Signature, J. H. Smith

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

1876-0227

