

# IRON SHIPS.

New 28/11/71

9592

No. 1007 Survey held at Newcastle Date, First Survey 27<sup>th</sup> June Last Survey 16<sup>th</sup> Nov 71

On the Screw Steamer "Grafalgar" Master J. H. Watson

Age under Tonnage Deck } 1057.41	ONE, OR TWO DECKED, SPAR, OR AWNING DECKED VESSELS.	THREE DECKED VESSELS.	Built at Newcastle
to of Third Spar, Lower Deck } 235.80	Half moulded breadth . . . . . 16.0	Half Moulded Breadth . . . . .	When built 1871 Launched Sept 28/71
to of Poop, or Raised Q. Dk. } 14.22	Depth from upper part of Keel to top of Upper Deck Beams . . . . . 19.6	Total Depth if three or more Decks . . . . .	By whom built C. Mitchell & Co
Ditto of Houses on Deck . . . . . 35.25	Girth of Half Midship Frame (as per Rule) . . . . . 32.3	Total Girth of Half Midship Frame . . . . .	Owners Messrs Nelson, Fox & Co
Ditto of Forecastle 1342.68	1st Number . . . . . 67.9	3rd Number . . . . .	Port belonging to London
Gross Tonnage 1342.68	Length . . . . . 244.2	Length . . . . .	Destined Voyage India
Net Tonnage 61.92	2nd Number . . . . . 165.81	4th Number . . . . .	If Surveyed while Building, Afloat, or in Dry Dock. White building
Net Tonnage, as a Steamer, cut on Beam } 429.66	Depths to Length. 13 <sup>ft</sup> under 14	Breadths to Length . . . . . under 8	

Thickness of Deck per Rule } 44 3	Feet. Inches. Moulded Breadth } 32 0	Depths from top of Floors to Upper and Main Deck Beams, as per Rule . . . . .	Feet. Inches. } 19 7 1/2	Power of Engines, 120	Horse. } 120	Nº. of Decks with flat laid } one	Nº. of Tiers of Beams } two
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Dimensions of Ship per Register, length, 248.0 breadth, 32.1 depth, 17.7	Inches in Ship.	Inches required per Rule.	Flat Keel Plates, breadth and thickness . . . . .	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
if bar iron, depth and thickness . . . . .	8 x 2 3/4	9 x 2 1/2	Plates in Garboard Strakes, breadth and thickness	36	10	30	10
if centre through plate, depth and thickness . . . . .	8 x 2 3/4	8 x 2 1/2	Do. from Garboard to upper part of Bilges . . . . .	-	9	-	9
if bar iron, moulding and thickness . . . . .	8 x 5 1/2	8 x 5	Do. of doubling at Bilge, or increased thickness, and length applied . . . . .	-	11	-	11
iron-post for Rudder do. do. . . . .	8 x 5 1/2	8 x 5	Do. from up. part of Bilge to Ir. edge of Sh'rstrake	36	9	30	14
iron-post for Propeller . . . . .	23 1/2	(Class 90A)	Do. Main Sheerstrake, breadth and thickness	36	14	30	14
Distance of Frames from moulding edge to moulding edge, all fore and aft . . . . .	23 1/2	(Class 90A)	Do. of doubling at Sh'rstrake, & length applied	-	-	-	-
Frames, size of Angle Iron, for 1/2 length amidships	4 3 7	4 3 7	Do. from Mn. to Up. or Spar Dk. Sh'rstrake.	-	-	-	-
Do. for 1/2 at each end . . . . .	4 3 6	4 3 6	Do. Up. or Spar Dk. Sh'rstrake, breadth & thickness	9 1/2	9 1/6	9 3/4	9
Reversed Frames, size of Angle Iron . . . . .	3 3 7	3 3 7	Butt Straps to outside plating, breadth & thickness	4 1/4 x 1/4	10	14 1/4	10
Floors, depth and thickness of Floor Plate at mid line for half the length amidships . . . . .	20 1/2 9	20 1/2 9	Lengths of Plating . . . . .	3 1/2	10	9 3/4	10
Do. at the ends . . . . .	20 1/2 8	20 1/2 8 1/2	Shifts of Plating, and Stringers . . . . .	-	-	-	-
Do. do. do. at Bilge Keelson	3 3 6	3 3 6	Gunwale Plate on ends of <del>Awning, Spar, or</del> Upper Deck Beams, breadth and thickness . . . . .	42	9	42	9
Do. height extended at the Bilges . . . . .	3 3 5	-	Angle Iron on ditto . . . . .	5 x 3 1/2 x 9 1/6	5 x 3 1/2 x 9	-	-
Beams, Upper, Spar, or Awning Deck (No. 61) single or double Angle Iron, Plate or Tee Bulb Iron . . . . .	7 1/2 7	7 1/2 7	Tie Plates (fore and aft), outside Hatchways . . . . .	11	9 1/6	11	9
Single or double Angle Iron on Upper edge . . . . .	3 3 6	3 3 6	Diagonal Tie Plates on Beams (No. of Pairs, 6)	11	9	11	9
Average space . . . . .	3 3 10	3 3 10	Planksheer material and scantling . . . . .	-	-	-	-
Beams, Main or Middle Deck (No. 6) single, or double Angle Iron, Plate or Tee Bulb Iron . . . . .	3 3 6	3 3 6	Waterways do. do. . . . .	-	-	-	-
Single or double Angle Iron on Upper Edge . . . . .	3 3 6	3 3 6	How fastened to Beams . . . . .	-	-	-	-
Average space . . . . .	3 3 10	3 3 10	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness . . . . .	-	-	-	-
Beams, Lower Deck, Hold or Outlet (No. 15) single or double Ang. Iron, Plate or Tee Bulb Iron . . . . .	3 3 6	3 3 6	(Is the Stringer Plate attached to the outside plating?)	-	-	-	-
Single or double Angle Iron on Upper Edge . . . . .	3 3 6	3 3 6	Angle Irons on ditto (No. ) . . . . .	-	-	-	-
Average space . . . . .	3 3 10	3 3 10	Tie Plates, outside Hatchways . . . . .	-	-	-	-
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates . . . . .	24 9	24 9	Diagonal Tie Plates on Beams (No. of pairs, )	-	-	-	-
Do. Bulb Plate to Intercoastal Keelson . . . . .	28 8	28 8	Waterways materials and scantlings . . . . .	-	-	-	-
Do. Size of Angle Irons . . . . .	5 3 1/2 9	5 3 1/2 9	Flat of Middle Deck do. do. . . . .	-	-	-	-
Do. Side Intercoastal Keelson size of Plates . . . . .	5 3 1/2 8	5 3 1/2 8	How fastened to Beams . . . . .	-	-	-	-
Do. Angle Irons on tops of Floors . . . . .	5 3 1/2 9	5 3 1/2 9	Stringer Plates on ends of Lower Deck, Hold or Outlet Beams . . . . .	26	8	26	8
Do. Bilge Keelson, Bulb Iron . . . . .	7 1/2 7	7 1/2 7	(Is the Stringer Plate attached to the outside plating?)	-	-	-	-
Do. do. Intercoastal plates riveted to plating for length . . . . .	5 3 1/2 9	5 3 1/2 9	Angle Irons on ditto (No. 2) . . . . .	4 x 4 x 9 1/6	4 x 4 x 9	-	-
Do. do. Angle Irons . . . . .	5 3 1/2 9	5 3 1/2 9	Stringer or Tie Plates, outside Hatchways . . . . .	-	-	-	-
Side Stringers (No. 1) size of Angle Irons	5 3 1/2 9	5 3 1/2 9	Flat of Lower Deck . . . . .	-	-	-	-
Do. Intercoastal plates riveted to plating for length.	-	-	Ceiling betwixt Decks, thickness and material . . . . .	2 1/2	red pine	-	-

Transoms, material Iron or, if none, in what manner compensated for.

Knight-heads Iron Hawse Timbers Iron

Windlass Iron Patent Pall Bitt Iron

The Frames extend in one length from Keel to gunwale Riveted through plates with (3/4 in.) Rivets, about 7 apart.

The Reverse Angle Irons on the floors and frames extend ~~from~~ the middle line to ~~the~~ Gunwale and to ~~the~~ Gunwale alternately

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Plates, Garboard, double Riveted to Keel, double at upper edge, with Rivets (5/16 in.) diameter, averaging (5 3/4 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (9/16) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3 1/2 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No

Do. of 3 Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than their plates.

Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single riveted; with rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge ~~single~~ At lower edge double

Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (9/16) thick, double or single Riveted; with Rivets (3/4 in) diameter, averaging ( 3 1/2 ins) from centre to centre.

Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting ( 4 3/4 ) Breadth of laps of plating in single Riveting ( 2 3/4 )

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double treble as per rule

Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? ~~riveted down~~ No. of Breasthooks, 4 Crutches, 49

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles, Lish, Wilton & Co.

Manufacturer's name or trade mark, Plates, Consett and Bolckow & Vaughan

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, J. L. Mitchell & Co. Surveyor's Signature, J. H. Watson

2700-052001

