IRON SHIPS.

Rec 26/5/70

No. 2853 Survey held at Middlesbro Date 4th November 1869 to 20th May 1870

on the Iron Screw Steamer "Agnes" Master Webb

PLANS CASE

Tonnage under tonnage deck	694·50	Built at Middlesbro	When built 1869-70 Launched 5th Feb. 19th 1870
Ditto of quarter deck	65·20		
Ditto ~~of poop, forecastle, or~~ Bridge House other erections on upper deck	21·46	By whom built Backhouse & Dixon	Owners The Telegraph Construction & Maintenance Co. (Limited)
Ditto ~~of spar deck~~			
Ditto of engine room	142·84	Port belonging to London	Destined Voyage London
Gross tonnage, less crew space	932·66		
Total Register tonnage, as cut on beam	559·79	If Surveyed while Building, Afloat, or in Dry Dock While Building	
Crew Space	48·80		

	Feet.	Inches.		Feet.	Inches.		Feet.	Inches.		Horse.	
Length aloft	200		Extreme Breadth	29		Depth from top of Upper Deck Beam to top of Floor	16	9	Power of Engines	95	No. of Decks One

Dimensions of Ship per Register, length 200' breadth 29' depth 16·9"

	Inches in Ship.			Inches required per Rule. for 600 & 400 tons Scale.		
Keel, if bar iron, depth and thickness	8½ × 2½			9¼ × 2¾		
,, ~~if plate iron, breadth and thickness~~						
Stem, if bar iron, moulding and thickness	8 × 2½			9 × 2¾		
,, ~~if plate iron, breadth and thickness~~						
Stern-post, if bar iron, moulding and thickness	9¼ × 4¼			9¼ × 5½		
,, ,, ~~if plate iron, breadth and thickness~~						
Distance of Frames from moulding edge to moulding edge, all fore and aft	21			21		
	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches required per Rule.	Inches. required per Rule.	16ths required per Rule.
Frames, Size of Angle Iron, single ~~or double~~	4	3	4/16	4	3	4/16
Hold Beams Reversed Iron, ~~if~~ to every frame or every other frame	3	2¾	6/16	3	2¾	6/16
Floors, depth and thickness of Floor Plate at mid line	19		8/16	19		8/16
,, Ditto ditto at Bilge Keelson	9		8/16	9		8/16
,, Size of Reversed Angle Iron, and No. One at top of Floor Plate	3	2¾	6/16	3	2¾	6/16
Beams, Deck (No. 25) ~~double Angle Iron, Plate, Tee, or~~ Bulb Iron	4¼		4/16	4¼		4/16
,, ,, double ~~or single~~ Angle Iron, on upper edge	2½	2½	6/16	2½	2½	6/16
,, ,, average space between		42			42	
,, Hold, or Lower Deck (No. 15) ~~double Angle, Tee, Plate, or~~ Bulb Iron	4¼		4/16	4¼		4/16
,, ,, double ~~or single~~ Angle Iron on upper edge	3	2¾	6/16	3	2¾	6/16
,, ,, average space between	2nd & 4th frame			2nd & 4th frame		
,, ~~Paddle, sided and moulded~~, ____ ~~thickness of Plate~~ ____ ~~size of Angle Iron~~						
,, ~~Engine~~ ,, ,, ,, Engine Room						
Keelson, single ~~or double~~ plate, ~~box, or intercostal~~	15		10/16	12⅔		11/16
,, Size of Plates in way of tanks	24		9/16			
,, Size of Angle Irons in do.	4½	3½	9/16	4¾	3¾	8/16
,, ~~Side, single or d'ble, plate, box, or intercostal~~						
,, Bilge (No. One) at each Bilge, ~~single, or~~ double, ~~plate, or box~~ Angles	4½	3½	9/16	4¾	3¾	8/16

	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Plates in Garboard Strakes, breadth and thickness	33	10/16	30	10/16
Ditto from Garboard to upper part of Bilges		9/16		9/16
,, from upper part of Bilge to a perpendicular height from upper side of Keel of ⅔ths the entire depth of Hold		8/16		8/16
,, from ⅔ths depth of Hold to lower edge of Sheerstrake		9/16		9/16
,, Sheerstrake, breadth and thickness	32½	11/16	30	11/16
Butt Straps to outside plating, breadth and thickness	8½ to 10	9/16 · 11/16	8 to 9⅝	9/16 · 11/16
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	28½	8/16	28½	9/16
Angle Iron on ditto ~~inner angle~~ 3 × 2½ × 6/16	4½ × 3½ × 9/16		4½ × 3½ × 9/16	
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	11	8/16	10¾	8/16
Diagonal Tie Plates on 2 sides ditto	11	8/16	10¾	8/16
Planksheer, materials and scantlings	Gutter			
Waterway ditto ditto				
Flat of Upper Deck, thickness and material	3½	4. 5	3¼	
,, ,, how fastened to Beams	5/8 b. d. & 33			
Ceiling betwixt Decks and in Hold, thickness and material	2½ & R. P. & A.			
~~Clamps or Spirketting~~ ~~ditto~~				
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	22	8/16	21	9/16
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams ..... Double angle	4½ × 3½ × 9/16		4½ × 3½ × 9/16	Single angle
Stringers in Hold	4½ × 3½ × 9/16		4¾ × 3¾ × 8/16	
~~Flat of Lower Deck, thickness and material~~				
Main piece of Rudder, diameter at head	4¾		5	
,, ,, ,, at heel	2¾		3	
(Can the Rudder be unshipped afloat Yes)				
Bulkheads, No. 4 Thickness of 6/16				6/16
,, Height up to Main Deck & Cabin floor plated over				
,, how secured to the sides of the ship double frames				
,, size of vertical angle irons 3 × 2½ × 6/16 and their distance apart 30 ins				

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

Knight-heads, and Hawse Timbers Angles irons & plating

The Frames extend in one length from Keel to Plimsole rivetted through plates with (¾ in.) rivets, about (6 & 4') apart.

The reverse angle irons on the floors extend in one length across the middle line from Turn of bilge to Turn of bilge

,, ,, ,, on the frames ,, ,, ,, from Turn of bilge to Hold Beams & Plimsole alternately

Keelson, how are the various lengths of plates or angle irons connected? By Butt straps and angle irons shifted

Plates, Garboard, double ~~or~~ rivetted to keel, double ~~or~~ with 1 inch rivets at upper edge, with rivets (¾ ins.) diameter, averaging (3 : 2½ in.) apart.

,, Edges from Garboards to upper part of bilge, worked clencher, double ~~or single~~ rivetted; with rivets (¾ in.) diameter, averaging (2¼ ins.) apart.

,, Butts from Keel to turn of bilge, worked carvel with butt straps (10/16 : 9/16) thick, double ~~or single~~ rivetted; with rivets (¾ in.) diameter, averaging (2¼ ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? No

,, Edges from bilge to sheerstrake, worked ~~carvel with a lining piece~~ ( ) ~~thick, or~~ clencher, ~~double or~~ single rivetted; with rivets (¾ in.) diameter, averaging (2¼ in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? No

,, Edges of Sheerstrake, double or single rivetted? At upper edge Single at bulwarks At lower edge double

,, Butts from bilge to planksheers, worked carvel with butt straps (8/16 : 11/16) thick, double ~~or single~~ rivetted; with rivets (¾ : ⅝ in.) diameter, averaging (2½ : 3 ins.) apart. Breadth of laps in double rivetting (4½) Breadth of laps in single rivetting (2½)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? double rivetted

Planksheer, how secured to the plating of the sides } Explain by sketch if necessary. } Gutter

Waterway ,, ,, planksheer and to the Beams

Deck Beams, how secured to the side? By Beam Ends timmed and welded

Hold or Lower Deck ditto ditto

~~Paddle~~ ,, ,, No. of breasthooks Three crutches Two

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

Manufacturer's name or trade mark Hartlepool Malleable Co. Balckow & Co. & Hopkins & Co.

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

Builder's Signature Backhouse & Dixon *Surveyor's Signature* [illegible]

IRON446-0212

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7970 Iron

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes

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

Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? In solid pieces

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the outer plate? Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? Some in butts

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Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. (P. Pine) *(If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.*

Anchors and Chain Cables tested at Sunderland Public Chain and Anchor Testing House - January 24th 1870. John Hastings Superintendent

No.	She has SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c	No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
One	Fore Sails,	Chain	240	1 3/8	34	1 3/8	34	Bowers	3	14-1-0	18-8-3-0	16 3/4	18
	Fore Top Sails,									14-1-0	18-8-3-0	16 3/4	18
suit	Fore Topmast Stay Sails	Hempen Stream Cable	90	13/16						14-1-14	15-19-0	14-0-24	15 11/20
	Main Sails,	Hawser	90	9 1/2		10		Stream	1	4-0-0		4-0-0	
	Main Top Sails,	Towlines	90	7		8							
and		Warp	90	5		5		Kedges	2	3-2-0		3 1/2	
		All of good quality.	60	4						1-3-0		1 3/4	

Her Standing and Running Rigging Hemp & Hemp sufficient in size and good in quality.

She has one Life Long Boat and two others

The present state of the Windlass is good Capstan and Rudder good Pumps (two of Metal) good

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Order for Special Survey No. 330 Date 10th Nov. 1869

Order for Ordinary Survey No. ____ Date ____

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 Seen three
2nd. On the plating during the progress of rivetting each week
3rd. When the beams were in and fastened, and before the decks were laid during building
4th. When the ship was complete, and before the plating was finally coated
5th. After the ship was launched

State if she has a ~~Spar~~ Raised Quarter Deck ____ ~~Poop~~ ____ ~~or Forecastle~~ ____

General Remarks,

Has a Raised Quarter Deck.

The Original Quarter Deck, Frames to top height. Beams, angles 6 × 3 × 9/16 and 2½ × 2½ × 6/16. Stringer plate on ditto 25" × 9/16. Tie plates 10" × 9/16. Space 11½". Plating 6/16 rivets 5/8 space 2¼. Deck 3 y.p. fastened with 9/16 h. d. n. 33.

The Quarter Deck has now been lengthened 35 feet. Angle irons of frames to top height (see Sketch showing alterations). Beams Bulb 9½ × 9/16, angles on upper edge 2½ × 2½ × 6/16. Stringer plate on ditto 29" × 9/16 tie plate 10" × 9/16. Plating 6/16 rivets 5/8 space 2¼. Waterway 9" × 11½ French Oak & P. Pine. Deck 3" y.p. fastened with 9/16 h. d. n. 33.

Fitted with Water Ballast Tanks in Fore and After Holds. Side flange plates 9/16, knee plates 9/16, bracket plates 6/16, angles top & bottom 2½ × 2½ × 5/16. top of tank 6/16 and Amm. Ceiling 2".

See Secretary's letters dated 8th May 1869 and 2nd May 1870

Buchanan Dixon

In what manner are the surfaces preserved from oxidation? Inside By Cement & Paint
Ditto ditto Outside By Paint

I am of opinion this Vessel should be Classed A 1

The amount of the Fee .....£5 : - : - is received by me,
May M Special .....£36 : 12 :
Certificate (if required) .....£ - : - : -

W. Morrison

Committee's Minute 2nd May 1870

Character assigned A 1 (without ~~double~~ A & C P)

GM WH

This vessel building under Surveyor's inspection is eligible for Classification as recommended below if the Committee do not consider the Scantlings to be in excess of the requirements of the Rules. The Committee will be glad to have a sketch showing the lines of plating, bilge keels, and the form of the frames at the ends of the vessel. Lloyd's Register Office May 26/70

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