

IRON SHIPS.

No. 637 Survey held at London Date February 24th 1869
 on the "Cassini" Master G. J. Burn
 Tonnage under tonnage deck 637.69 Built at Hebburn When built 1866 Launched 6th March 1866
 Ditto of poop or spar deck 198.54 By whom built Andrew Leslie Owners Smith & Co
 Ditto of engine room 148.68
 Total Register tonnage 884.91 Port belonging to London Destined Voyage Black Sea
 Surveyed while Building, Afloat, or in Dry Dock Victoria Docks

Length aloft		Extreme breadth		Depth from top of Upper Deck Beam to top of Floor		Power of Engines		Horse.		N ^o . of Decks	
Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	Horse.	N ^o .	Feet.	Inches.
221	1/2	28	1/2	23	1	80	0	2			
(Dimensions of Ship per Register. Length 220 2/10 breadth 28 2/10 depth 16 1/5)											
Keel, bar iron , depth and thickness		Inches in Ship.		Inches required per Rule.		Plates in Garboard Strakes, breadth and thickness		Inches in Ship.		16ths in Ship.	
" if plate iron, breadth and thickness		7 x 2 3/4				Ditto from Garboard to upper part of Bilges		10 1/2		9 1/2	
Stem, bar iron , moulding and thickness		7 x 2 3/4				" from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold		9 1/2		10 1/2	
" if plate iron, breadth and thickness		7 x 4 1/2				" from 3/4ths depth of Hold to lower edge of Sheerstrake		10 1/2		9 1/2	
Stern-post, bar iron , moulding and thickness		21				Sheerstrake, breadth and thickness		10 1/2		9 1/2	
" if plate iron, breadth and thickness						Butt Straps to outside plating, breadth and thickness		10 1/2		9 1/2	
Distance of Frames from moulding edge to moulding edge, all fore and aft						Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness		32		9 1/2	
Frames, Size of Angle Iron, single or double		5 x 3		1/16		Angle Iron on ditto		3 1/4		4 1/2 x 1 1/2	
" Reversed Iron, to every frame		2 1/2		3		Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways		12 1/2		7 1/2	
" every alternate frame, to		3		2 1/2		Diagonal Tie Plates on ditto		12		7 1/2	
Floors, depth and thickness of Floor Plate at mid line		17		9 1/2		Planksheer, materials and scantlings		Red pine		3 pairs	
" Ditto ditto at Bilge Keelson		18		9 1/2		Waterway ditto ditto		6 x 6		Red Pine	
" Size of Reversed Angle Iron, and No. one at top of Floor Plate		3		2 1/2		Flat of Upper Deck, thickness and material		3 1/2		Red Pine	
Beams, Deck (N ^o . 42) double Angle Iron		7		x		" how fastened to Beams		Sub and screw bolts from above			
" double or single Angle Iron, on upper edge		2 3/4		3		Ceiling betwixt Decks and in Hold, thickness and material		2 1/4		4 1/2	
" average space between		3 feet		6		Clamps or Spirketting ditto		-		-	
Hold, or Lower Deck (N ^o . 1) double Angle, or Plate, or Bulb Iron		7		x		Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness		17		7 1/2	
" double or single Angle Iron, on upper edge		3		3		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams		-		-	
" average space between		every 4 frames				Stringers in Hold		5		3 1/4	
Paddle, sided and moulded, thickness of Plate size of Angle Iron		-		-		Flat of Lower Deck, thickness and material		12		3 1/4	
Engine		-		-		Main piece of Rudder, diameter at head		5 3/8			
Keelson, single or double plate, box, or intercostal		20 1/2		x		" " " at heel		-		-	
" Size of Plates		3		4 3/4		(Can the Rudder be unshipped afloat)		Yes			
" Size of Angle Irons		3		4 3/4		Bulkheads, N ^o . 6 Thickness of		1 1/2			
" Side, single or double, plate, box, or intercostal		3 1/2		3		" Height up Main Deck		-		-	
" Bilge (No. 2) at each Bilge, single, or double, plate, or box		3 1/2		3		" how secured to the sides of the ship		By frames			
Transoms, material <u>Plate</u> or, if none, in what manner compensated for.											
Knight-heads, and Hawse Timbers <u>Iron</u> size of vertical angle iron <u>7 1/2</u> and their distance apart <u>6 feet</u>											
The Frames extend in one length from <u>Keel to upper deck</u> rivetted through plates with <u>3/4</u> rivets, about <u>2 1/2</u> apart.											
The reverse angle irons on the floors extend in one length across the middle line from <u>Hold Beam to Hold Beam</u>											
" " " on the frames " " " from and to <u>Main deck Stringer plate on alternate frames</u>											
Keelson, how are the various lengths of plates or angle irons connected? <u>by lining pieces or butt straps</u>											
Plates, Garboard, double rivetted to keel, double rivetted at upper edge, with rivets <u>3/4</u> (ins.) diameter, averaging <u>6 1/4</u> (ins.) apart.											
" Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets <u>3/4</u> (ins.) diameter, averaging <u>2 3/4</u> (ins.) apart.											
" Butts from Keel to turn of bilge, worked carvel with butt straps <u>1 1/2</u> thick, double or single rivetted; with rivets <u>3/4</u> (ins.) diameter, averaging <u>2 3/4</u> (ins.) apart.											
Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>											
" Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets <u>3/4</u> (ins.) diameter, averaging <u>2 3/4</u> (ins.) apart.											
Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>											
" Edges of Sheerstrake, double or single rivetted? At upper edge <u>single</u> At lower edge <u>single</u>											
" Butts from bilge to planksheers, worked carvel with butt straps <u>1 1/2 to 1 1/4</u> thick, double or single rivetted; with rivets <u>3/4</u> (ins.) diameter, averaging <u>2 3/4</u> (ins.) apart. Breadth of laps in double rivetting <u>3 1/4</u> Breadth of laps in single rivetting <u>2 1/2</u>											
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? <u>double</u>											
Planksheer, how secured to the plating of the sides Explain by sketch <u>Please see Maship section</u>											
Waterway " " planksheer and to the Beams if necessary.											
Deck Beams, how secured to the side? <u>Solid knees and Stringer Angle Irons rivetted to frames</u>											
Hold or Lower Deck ditto <u>ditto</u>											
Paddle " " <u>none</u> No. of breasthooks <u>four</u> crutches <u>three</u>											
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? <u>Not known</u>											
Manufacturer's name or trade mark <u>Not seen</u>											

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

Builder's Signature

Surveyor's Signature

IRON 443-0360

6893 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 lay 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? Solid

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Not seen and are the rivet holes well and sufficiently countersunk in the outer plate? When seen good

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

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. (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.

Stores not Complete

She has SAILS.		CABLES, &c.			ANCHORS, and their weights.			
N ^o .		Chain	Pathoms.	Inches.	Tested to Tons.	N ^o .	Weight. Ex. Stock	Tested to Tons.
	Fore Sails,						
	Fore Top Sails,	Hempen Stream Cable						
	Fore Topmast Stay Sails,	Hawser						
	Main Sails,	Towlines						
	Main Top Sails,	Warp						
	and	All of						
		quality.						

Her Standing and Running Rigging are sufficient in size and good in quality.

She has Four Long Boat and -

The present state of the Windlass is good Capstan good and Rudder good Pumps good

Order for Special Survey	DATES of	1st.	2nd.	3rd.	4th.	5th.
No. _____	Surveys held	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the progress of rivetting	When the beams were in and fastened, and before the decks were laid	When the ship was complete, and before the plating was finally coated	After the ship was launched
Date _____	while building					
Order for Ordinary Survey	as per					
No. _____	Section 18.					
Date _____						

not surveyed while Building

State if she has a Spar Deck She has Poop _____ or Forecastle _____

General Remarks, Now done all the close ceiling removed from the main hold, all the timbers lifted and a portion of the close ceiling forward and aft and Spar deck, where the plating and rivets, &c. were found in a good condition. Caused the plating to be drilled from head to gunwall, and found all in a satisfactory condition. This vessel has a spar deck. The plating is in excess of the requirements of the Rules for the 13' Clap. The butts are triple rivetted. It will be observed that for 80 feet area

Spar deck.

Beams (No 54) Bulb	6 x 6 1/2
Angle Iron	2 1/2 x 2 1/2
average space	3 feet 6
Stringer on ends of Spar deck beams	19 x 6 1/2
Angle Iron to ditto (not seen)	
Stringer on Dee plate outside	10 x 7 1/2
Watchways	
Waterway (Red Pine)	12 x 5
Flat of Deck Yellow Pine	3

ships only the alternate frames are not extended to the Spar deck, but the Spar deck plating is of extra thickness. The stringers and angle Irons are smaller than required by the Rules but taking the vessel as a whole she is a strong satisfactory looking one, and for this one opinion to be favorably considered for the 13' Clap without the 1

In what manner are the surfaces preserved from oxidation? Inside Paint and the hollow Cemented
Ditto ditto Outside Paint and Yellow

We are of opinion this Vessel should be Classed C

The amount of the Fee£ 5 : - : - is received by me,

Special£ 10 : 10 : 0

Certificate (if required)£ : 5 : -

Committee's Minute 26 February 1889

Character assigned C

S. S. M. 3. 19. 1889

B. J. Raymond
W. J. Tucker



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Foundation