

# IRON SHIPS.

Rec 18/8/73

No. 10,650 Survey held at Sunderland Date, First Survey March 20<sup>th</sup> 1873 Last Survey August 9<sup>th</sup> 1873  
On the SS Vindomora Official number 68,452 Master Ward

Tonnage under Tonnage Deck 839.38  
Ditto of Third Spar or Awning Deck 210.96  
Ditto of Poop, or Raised Qr. Dk. 3.12  
Ditto of Houses on Deck 26.32  
Ditto of Forecastle 1079.78  
Gross Tonnage 41.87  
Crew Space, as per Rule 1037.91  
Register Tonnage, out on Beam 345.53  
Engine Room 692.38  
Register Tonnage, as a Steamer, out on Beam

ONE, OR TWO DECKED, THREE DECKED VESSELS.  
SPAR, OR AWNING DECKED VESSELS.

Half moulded breadth .... 14.96  
Depth from upper part of Keel to top of Upper Deck Beams ..... 18.50  
Girth of Half Midship Frame (as per Rule) ... 30.42

1st Number ..... 63.88  
Length ..... 216.67

2nd Number .... 13.840  
Depths to Length. Under 12

Half Moulded Breadth....

Total Depth if three or more Decks .....

Total Girth of Half Midship Frame .....

3rd Number....

Length .....

4th Number ....

Breadths to Length ... Under 8

Built at Sunderland

When built 1872.1873 Launched July 10/73

By whom built J. L. Thompson

Owners Bell Symonds & Co

Port belonging to London

Destined Voyage Soulon

If Surveyed while Building, Afloat, or in Dry Dock.

Whilst Building

Length on deck as per Rule, 216 Feet. 6 Inches. Moulded Breadth, 29 Feet. 11 Inches. Depths from top of Plates to Upper and Main Deck Beams, as per Rule ..... 18 Feet. 6 Inches. Power of Engines, 99 Horse. No. of Decks with flat laid one No. of Tiers of Beams 2

Dimensions of Ship per Register, length, 219.8 breadth, 30.4 depth, 16.8

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness .....	8 x 2 3/8	8 x 2 3/8
Do. if centre through plate, depth and thickness .....	8 x 2 3/8	7 1/2 x 2 3/8
Stem, if bar iron, moulding and thickness .....	8 x 4	8 x 4
Stern-post for Rudder do. do. ....	8 x 4	8 x 4
Stern-post for Propeller .....	8 x 3 3/4	8 x 3 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft .....	23	(Class 90 A)
	Inches in Ship.	Inches required per Rule.
Frames, size of Angle Iron, for 1/2 length amidships	4 3	4 3
Do. for 1/2 at each end .....	4 3	4 3
Reversed Frames, size of Angle Iron .....	3 3	3 3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships .....	18 1/2	18 1/2
Do. at the ends .....	8	8
Do. do. do. at Bilge Keelson .....	8	8
Do. height extended at the Bilges .....	37	37
Beams, Upper, Spar, or Awning Deck (No. ) single or double Angle Iron, Plate or Tee Bulb Iron .....	4 3	4 3
Single or double Angle Iron on Upper edge .....	4 3	4 3
Average space .....	4 3	4 3
Beams, Main or Middle Deck (No. 56 ) single or double Angle Iron, Plate or Tee Bulb Iron .....	4 3	4 3
Single or double Angle Iron, on Upper Edge .....	4 3	4 3
Average space .....	4 3	4 3
Beams, Lower Deck, Hold or Orlop (No. 80 ) single or double Angle Iron, Plate or Tee Bulb Iron .....	4 3	4 3
Single or double Angle Iron on Upper Edge .....	4 3	4 3
Average space .....	4 3	4 3
Keelson Centre line, single or double plate, box, or intercostal, size of Plates .....	14	14
Do. Bulb Plate to Intercostal Keelson .....	9 1/2	9 1/2
Do. Size of Angle Irons .....	4 1/2	4 1/2
Do. Side Intercostal Keelson, size of Plates .....	4 1/2	4 1/2
Do. Angle Irons on tops of Floors .....	4 1/2	4 1/2
Do. Bilge Keelson, Bulb Iron .....	4 1/2	4 1/2
Do. do. Intercostal plates riveted to plating for 1/2 length .....	4 1/2	4 1/2
Do. do. Angle Irons .....	4 1/2	4 1/2
Side Stringers (No. / ) size of Angle Irons .....	4 1/2	4 1/2
Do. Intercostal plates riveted to plating for 1/2 length .....	4 1/2	4 1/2

	Inches in Ship.	16ths in Ship.	Inches required per Rule.	16ths required per Rule.
Flat Keel Plates, breadth and thickness .....	36	9	30	9
Plates in Garboard Strakes, breadth and thickness .....	36	9	30	9
Do. from Garboard to upper part of Bilges .....	36	9	30	9
Do. of doubling at Bilge, or increased thickness, and length applied 1/2 length .....	36	9	30	9
Do. fin up. part of Bilge to l. edge of Sh'rstrake .....	36	9	30	9
Do. Main Sheerstrake, breadth and thickness .....	36	12	36	12
Do. of d'bling at Sh'rstrake, & length applied .....	36	12	36	12
Do. from Mn. to Up. or Spar Dk. Sh'rstrake .....	36	12	36	12
Do. Up. or Spar Dk Sh'rstrake, brdth & thickness .....	36	12	36	12
Butt Straps to outside plating, breadth & thickness .....	10	14 1/2	17	9.8/10.13
Lengths of Plating .....	5	Shaves		
Shifts of Plating, and Stringers .....	2	Shaves		
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness .....				
Angle Iron on ditto .....				
Tie Plates (fore and aft), outside Hatchways .....				
Diagonal Tie Plates on Beams (No. of Pairs, ) .....				
Planksheer material and scantling .....				
Waterways do. do. ....				
Flat of Upper Deck do. do. ....				
How fastened to Beams .....				
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness .....	43	9	43	9
(Is the Stringer Plate attached to the outside plating?)	Yes			
Angle Irons on ditto (No. / ) .....	4 1/2 x 3 1/2 x 8	4 1/2 x 3 1/2 x 8		
Tie Plates, outside Hatchways .....	10 1/2	9	10	9
Diagonal Tie Plates on Beams (No. of pairs, ) .....				
Waterways materials and scantlings .....				
Flat of Middle Deck do. do. ....	3 1/2	Yellow Pine 2 1/2	8	8
How fastened to Beams .....				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams .....	27 1/2	8	27	8
(Is the Stringer Plate attached to the outside plating?)	Yes			
Angle Irons on ditto (No. 2 ) .....	4 x 3 x 8	4 x 3 x 8		
Stringer or Tie Plates, outside Hatchways .....	4 x 3 x 8	4 x 3 x 8		
Flat of Lower Deck .....				
Ceiling betwixt Decks, thickness and material .....	2 1/2	in. Baltic Pine		
Do. in hold do. do. ....				
Main piece of Rudder, diameter at head .....	5 1/2	8		
Do. do. at heel .....	43/4 x 3 1/2	3		
(Can the Rudder be unshipped afloat? Yes )				
Bulkheads No. 4 Thickness of 6/16				
Do. Height up Upper Deck .....				
Do. How secured to the sides of the ship .....				
Do. Size of Vertical Angle Irons, 3 x 3 x 1/2 and their distance apart, 2/6				
Do. Are the outside Plates doubled two spaces of Frames in length? Yes				

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

Knight-heads Iron Hawse Timbers Iron

Windlass Iron Patent Pall Bitt Nil

The Frames extend in one length from Keel to Summit

The Reverse Angle Irons on the floors and frames extend across the middle line to angles on hold to beam stringer and to Summit alternately

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

Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (3/4 in.) diameter, averaging (3 1/2 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 (2 1/2 ins.) 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? in alternate strakes

Do. of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/2 thicker than their plates. 8

Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece (1/2 in.) 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 to Summit angle At lower edge Double

Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (1 1/2 ins.) 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 1/4 ) Breadth of laps of plating in single Riveting ( 2 1/4 )

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

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

Beams of the various Decks, how secured to the sides? Riveted to frames & stringer No. of Breasthooks, 5 Crutches, 3

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

Manufacturer's name or trade mark, Bolton & Co. for Plate & S. for S. for S.

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

Signature Joseph L. Thompson Surveyor's Signature, Martindale

IRON 454-0527

Lloyd's Register Foundation

Workmanship. Are the butts of plating planed fitted? Planed 11729 Jm  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? well fitted  
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? solid pieces  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes generally and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
Are there any rivets which either break into or have been put through the seams or butts of the plating? A few in butts only

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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit

*Midship Section attached.*

No.	Number for equipment	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.
	15224			240	1 1/4	37 1/2	17/16	37 1/2						
		Fore Sails,	Chain .....						Bowers ....	3	18-2-26	19.13.0.14	18-0-0	18-0-0-0
		Fore Top Sails,	(State Machine where Tested, and name of Superintendent).								18-2-14	15.10.5.21	18-0-0	18-0-0-0
		Fore Topmast Stay Sails	Hempen Stream	80	9 1/2	Strain in each 15 fathoms of the above Chain has been proved to breaking strain by 58 1/2					15-2-26	17.3.0.14	15-1-6	16 1/2
		Main Sails,	Cable	80	7 1/8	Strain by 58 1/2								
		Main Top Sails,	Hawser .....	80	7 1/8	Strain by 58 1/2								
			Towlines ....	80	5 1/2				Stream ....	1	8-2-14		8-0-0	
			Warp .....	80	4 1/2									
			All of good quality.	140	4				Kedges ....	2	4-0-0		4-0-0	
											2-0-2		2-0-0	

Her Standing and Running Rigging Complete sufficient in size and Good in quality. She has 2 Life Long Boats and 1 other

The present state of the Windlass is Am Patent (2 Capstans & 2 Steam Winches) and Rudder Good Pumps Good

Engine Room Skylights.—How constructed? Strong Wood Frame How secured in ordinary weather? Iron Bars & Pins

What arrangements are there for deadlights in such for bad weather? Iron Bars & Pins, & Bulls-eye let into Strong Wood Frame.

Coal Bunker Openings.—How constructed? Strong Wood Lumber How are lids secured? Bars How high above deck? 7 in

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Side Ports

Cargo Hatchways.—How formed? Strong plates & angle iron

State size 23 ft by 11 ft with a deck plate beam 2 ft 7 1/2 deep & double angles on top, 4 Iron Pillars & Strong Wood frame

If of extraordinary size, state how framed and secured? —

What arrangement for shifting beams? —

Hatches, themselves, whether strong and efficient? Yes

Main Hatchways.—State size 19 ft 2 in by 10 ft secured same as above

Order for Special Survey No. 2404 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought. Built under S.S.  
Date 24th March 1873 Surveys held 2nd. On the plating during the progress of riveting and surveyed 18th March 1873 22nd April 1873 16th May 1873 22nd May 1873  
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid 3rd 12th 14th 20th 26th 30th June 7th 14th 20th 26th 30th July  
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented 23rd 30th July 3rd 10th 15th 17th  
No. 1114 in builder's yard. Section 18. 5th. After the ship was launched and equipped 24th 26th Aug 5th 7th 9th

General Remarks,

*This Vessel is built under the Old Rules. She has a Full Poop 125 feet long from the Sternpost, the Sheerstrake is doubled at the break of Poop for about 25 feet & the Main Deck Stringer plate is increased in thickness at the same place. There is a double bottom in the After hold extending from the After Engine Room Bulkhead into the very narrow run off <sup>68 ft long</sup> also a double bottom in the very fore end of the Vessel about 36 feet long. The Topgallant Fore castle is 29 feet long.*

State if ~~one~~ two or three decked vessel, or if spar or awning decked, and lengths of poop, forecastle or raised quarter deck, or of double or part double bottom.

In what manner are the surfaces preserved from oxidation? Inside Red paint & cement in bottom Outside Red paint

I am of opinion this Vessel should be Classed \*90A1

The amount of the Entry Fee .....£ 5 : 0 : 0 is received by me,

Special .....£ 50 : 19 : 0  
Certificate .... : : *Th W*

(Travelling Expenses)  
(if any) £ —

Committee's Minute 19th August 1873

Character assigned 90A

*part double bottom*

*This vessel appears to be slightly over classed 90A1 as required by Lloyd's Register Foundation*