

IRON SHIPS.

No. 1745 Survey held at Belfast Date 13th July 1863
on the New Iron Ship "Star of Denmark" Master John. H. Savage
Tonnage Gross 998 - 31 Engine Room Register Built at Belfast & Launched 19th June
When Built 1863 By whom built Harland & Wolff Owners James P. Barry & Co
Port belonging to Belfast Destined Voyage India via Liverpool.
If Surveyed Afloat or in Dry Dock Specially Surveyed while Building

Feet.		Inches.		Feet.		Inches.		Horse No.									
Length aloft		Extreme Breadth		Depth from top of Upper Deck		Beam to top of Floor		Power of Engines									
208		9		32 1/2		21 11											
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft				Inches in Ship.		Inches required per Rule.		Stem, \times bar iron, moulding and thickness		Inches. In Ship.		16ths. In Ship.		Inches. required per Rule.		16ths. required per Rule.	
				18		18		at bottom		10		2 1/2		8		3	
				Inches. In Ship.		Inches. In Ship.		16ths. In Ship.		Inches. required per Rule.		Inches. required per Rule.		16ths. required per Rule.		16ths. required per Rule.	
Floors, Size of Angle Iron, and No. 1 at bottom of Floor Plate				4 1/2 3		8 1/8 4 3/4 3		8 1/8		,, if plate iron, breadth and thickness							
,, depth and thickness of Floor Plate at mid line				28		10 1/8 22		11 1/8		Stern-post, \times bar iron, moulding and thickness		8		3		8 3	
,, depth and thickness of Floor Plate at Bilge Keelson				13		10 1/8		,, if plate iron, breadth and thickness									
,, Size of Reversed Angle Iron, and No. 2 at top of Floor Plate				3 1/2 3		7 1/8 3 1/4 3		7 1/8		Keel, \times bar iron, depth and thickness		10		2 1/2		8 3	
Frames, Size of Angle Iron, single or double				4 1/2 3		8 1/8 4 3/4 3		8 1/8		,, if plate iron, breadth and thickness							
,, Reversed Iron, \times to every frame or every frame				3 1/2 3		7 1/8 3 1/4 3		7 1/8		Garboard Plates, thickness		Description of Iron.		13 1/8		13 1/8	
Beams, Deck (No.) double Angle Iron or Bulb Iron with double Angle Iron on top				3 3		6 1/8 3 3		6 1/8		From Garboard to upper part of Bilge		Staffordshire		12 1/8		12 1/8	
,, depth & thickness of plate amidships				6		12 1/8 8		9 1/8		From upper part of Bilge to Sheerstrakes				11 1/8		11 1/8	
,, double or single Angle Iron										Sheerstrakes				12 1/8		12 1/8	
Bulb Iron on lower edge				35 1/4						Breadth & thickness of Butt Straps to outside plating		9 1/2 12 1/2 13 1/2 14 1/2 15 1/2					
,, average space between				35 1/4						Planksheers		Material.		-		-	
,, if wood (No.) sided & moulded										Gunwale Plate or Stringer on ends of Up. Dk Beams				24		14 1/8 24 1/8	
,, Hold, or Lower Deck (No.) double Angle Iron or Bulb Iron with double Angle Iron on top				3 3		6 1/8 3 3		6 1/8		Angle Iron on ditto				5 x 4		9 1/8	
,, depth & thickness of plate amidships				6		12 1/8 8		9 1/8		Waterway		Iron					
,, double or single Angle Iron										Deck		Yellow Pine		3 1/2		3 1/2	
Bulb Iron on lower edge				35 1/4						Ceiling in Hold		Baltic Pine		2 1/2			
,, average space between				35 1/4						Ceiling betwixt Decks		" " "		2 1/4			
,, if wood (No.) sided & moulded										Beam Clamps							
,, Paddle, wood, sided and moulded or if Iron, size of Plate										,, Shelf							
,, Engine										,, Stringer Plates on ends of Hold or Lower Dk Beams				24		14 1/8 24 1/8	
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions				15		13 1/8 5 1/4 9 1/8		15 1/8 5 1/4 9 1/8		Ceiling between Decks		Baltic Pine		2 1/4			
,, Side or Bilge										Stringer or Tie Plates outside Hatchways		in main Deck		12		14 1/8 12 1/8	
,, Number				3						Deck Beam Clamps							
										,, Shelf							
										Stringers in Hold				5 x 4		9 1/8	
										Deck, Lower		Baltic Pine		3			
										Deck, Upper, how fastened to Beams		with 1/2 inch per inch Baltic wood					

Transoms, material Iron or, if none, in what manner compensated for By flooring plate rivetted to frames & tapped to stern post
 Knight-heads " " } Bulkheads, N°. 3 to main deck Thickness of 4 1/16
 Hawse Timbers " " } are they free from defects? Yes how secured to the sides of the ship Rivetted between two frames

The Frames or Ribs extend in one length from Keel to Quarter rivetted through plates with ($\frac{1}{8}$ in.) rivets, about (6 in.) apart.

The reverse angle irons on the floors extend in one length across the middle line from 3 1/2 to 4 feet on each side alternately to hold beam stringers
 " " " on the frames " " " from 2' to 2'

Keelson, how are the various lengths of plates or angle irons connected? *With butt straps and double rivetted*

Plates, Garboard, ~~double or single~~ rivetted to keel & at upper edge, with rivets ($\frac{5}{8}$ in.) diameter averaging ($\frac{4}{8}$ in.) from centre to centre of rivet.

„ Edges from Garboards to upper part of bilge, worked ^{put in alternately} parrel with a lining piece (in.) thick, ~~or~~ ^{or} ~~clencher~~, ~~double or single~~ rivetted; rivets ($\frac{1}{2}$ in.) diameter, averaging ($\frac{3}{8}$ in.) from centre to centre of rivets.

„ Butts from Keel to turn of bilge, worked carvel with a lining piece $\frac{2 \times 13}{16 \quad 16}$ thick, ~~double or single~~ rivetted; rivets $\frac{7}{8}$ in. diameter, averaging (13 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? *alternately*

„ Edges from bilge to planksheer, worked ^{over} ~~carvel~~ with a lining piece () thick, ~~double or single~~ rivetted; rivets ($\frac{1}{8}$ in.) diameter, averaging (3 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? alternately

„ Butts from bilge to planksheers, worked carvel with a lining piece $\frac{11 \frac{1}{2}}{16}$ thick, ~~or clench~~, double ~~or single~~ rivetted; rivets $\frac{5}{8}$ in. diameter averaging (3 ins.) from centre to centre of rivets. Breadth of laps in double rivetting ($4 \frac{1}{2}$) Breadth of laps in single rivetting (—)

Planksheer, how secured to the plating of the sides { Explain by sketch, }
Waterway „ „ planksheer and to the Beams { if necessary. }

Side trussing _____ breadth and thickness of plates _____ how secured? _____
Deck trussing " " " " " ? _____

Deck Beams, how secured to the side? *Iron plates welded & rivetted to frames*

Hold or Lower Deck „ *The same as above, and diagonal bracing to masts & stringer plates*

No. of breasthooks 4 crutches 3 how are pointers compensated? By plate iron rivetted to frames

What description of iron is used for the angle iron and plate iron in the vessel? 1674 bars Staffordshire plate Builder's Signature Musland Wolff

IRON 436-0378

3233 Iron
five times the diameter of the rivets

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? *Filled in solid*

Do the holes for rivetting plate to frames, lining pieces, 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? *a few*

Her Masts, Yards, &c., are in _____ condition, and sufficient in size and length.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.			
No.		Proved Admiralty scale of Test	Fathoms.	Inches.		No.	Weight.
		Iron, <i>Ant. 10.0</i>	150	1 1/2	Porter Iron Stock		
		51" 5" 10.0			Proved & sustained a tension <i>34 Cwt</i>		
Fore Sails,	Chain	24" 5" 2.0	150	1 1/2	Bower,	1	24.2.10
		20" 5" - -	90	1 1/2	Common anchor	1	24.3.15
Fore Top Sails,	Hempen Stream Cable					1	24.1.22
			90	9	Stream,	1	11.1. -
Fore Topmast Stay Sails,	Hawser		80	11			
Main Sails,	Towlines		90	1 1/2	Kedge,	1	5.1.22
Main Top Sails,	Warp				" " "	1	2.3.10
and	All of <i>Good</i> quality.						

Her Standing and Running Rigging _____ sufficient in size and _____ in quality.

She has one Long Boat and three others

The present state of the Windlass is Good ✓ Capstan 2 Good ✓ and Rudder Good ✓ Pumps 4 Cast Metal Good ✓

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

DATES of Surveys held while building, as per Section 17.	1st.	On the several parts of the frame, when in place, and before the plating was wrought	Nov ^r 28 th 1862
	2nd.	On the plating during the progress of rivetting	Jan ^y 23 rd 1863
	3rd.	When the beams were in and fastened, and before the decks were laid	Nov ^r 28 th 1862
	4th.	When the ship was complete, and before the plating was finally coated	May 18 th 1863
	5th.	After the ship was launched	July 13 th "

This Vessel's Sheerstrake for about 100 feet on each side amidships, are treble rivetted in the butts. Mash plates 9/16 In. rivetted between the bilge keelson angle Irons. for 110 feet on each side. has a greenheart plank in main deck, on each side next Iron waterway.

She left this on the 13th Instant. in tow of a Steamer for Liverpool, with only her lower masts stepped, and there to be fitted out,

In what manner are the surfaces preserved from oxidation?

In what manner are the surfaces preserved from oxidation? *The flat of floor inside to well up the turn of bilge, all fore and aft, is covered with Portland Cement, above this, and the topsides, 3 Coats of paint, from keel to load water mark, coated with Red & White lead mixed, also with Maginess Patent grease.*
I am of opinion this Vessel should be classed *2A*

I am of opinion this Vessel should be classed 12 A

The amount of the Fee£ 5 : : is received by me, *W. G. Linton*

Special£49:18:

Certificate (if required)£ : :

Committee's Minute 31st July 1843

Character assigned *A - for 12 years*

I concur in the
opinion given above
that this paper is
eligible for Chapter
12. J. H. R.
28 July 1865

Lloyd's Register
Foundation