

Special Survey No. 3 Lengthening & for Class under New Rules. **IRON SHIPS.** Reg. 28/12/71

No. 2778 Survey held at Whitehaven Date, first Survey 24 July Last Survey 28 December 1871
 on the B.R. "William Wilson" Master Alfred Ryan

Reg. Book No. <u>255</u>	Cargo under Tonnage Deck <u>425.75</u>	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Bristol</u>
Ditto of Spar Deck, or Awning Deck		Half moulded breadth <u>10 3/4</u>	Half Moulded Breadth....	When built <u>1863</u> Launched <u>August</u>
Ditto of Poop, or Raised Or. Deck		Depth from upper part of Keel to top of Upper Deck Beams <u>16.5</u>	Total Depth if three or more Decks	By whom built <u>J. M. Hyde & Co</u>
Ditto of Houses on Deck		Girth of Half Moulding Frame <u>24.2</u>	Total Girth of Half Mid-ship Frame	Owners <u>George Wilson & Co</u>
Ditto of Forecastle		1st Number <u>52.5 1/2</u>	3rd Number	Port belonging to <u>Whitehaven</u>
Gross Tonnage <u>425.75</u>		Length <u>152</u>	Length	Destined Voyage <u>Sriente</u>
Dedicated Crew Space, as per Rule <u>41.82</u>		2nd Number <u>7976.10</u>	4th Number	If Surveyed while Building, Afloat, or in Dry Dock
Register Tonnage, cut on Beam <u>383.93</u>		Depths to Length <u>9.25</u>	Breadths to Length <u>6.388</u>	<u>while lengthening on the patent slip</u>
Engine Room				
Register Tonnage, as a Steamer, cut on the Beam				

Length on deck as per Rule, 152 Feet. Inches. Moulded Breadth, 23 9 1/2 Feet. Inches. Depth from top of Keel to Deck Beam, as per Rule .. 16 5 Feet. Inches. Power of Engines, One N^o. of Decks, One N^o. of Tie Beams two

Dimensions of Ship per Register, length 156. breadth 23.9 depth 15.

	Inches in Ship	Inches required per Rule	Inches in Ship	Inches required per Rule	16ths required per Rule	Inches in Ship	Inches required per Rule	16ths required per Rule
Keel, if bar iron, depth and thickness	<u>See sketch in first entry report</u>	<u>7 1/4 x 1 1/8</u>						
Do. if centre through plate, depth and thickness	<u>See sketch in first entry report</u>	<u>6 1/2 x 1 1/8</u>						
Stem, if bar iron, moulding and thickness	<u>See sketch in first entry report</u>	<u>6 3/8 x 2 1/2</u>						
Stern-post do. do. do.	<u>See sketch in first entry report</u>	<u>6 1/2 x 1 1/8</u>						
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>18 inches</u>	<u>21 inches</u>						
Frames, size of Angle Iron, for 2/3 length amidships	<u>3 1/2 x 2 1/2</u>	<u>6</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>			
Do. for 1/3 at each end	<u>3 1/2 x 2 1/2</u>	<u>6</u>	<u>3 1/2</u>	<u>3</u>	<u>5</u>			
Reversed Frames, size of Angle Iron	<u>2 1/2 x 2 1/2</u>	<u>5</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5</u>			
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>15</u>	<u>8</u>	<u>14 1/2</u>	<u>6</u>				
Do. at the ends	<u>15</u>	<u>8</u>	<u>14 1/2</u>	<u>6</u>				
Do. do. do. at Bilge Keelson	<u>15</u>	<u>8</u>	<u>14 1/2</u>	<u>6</u>				
Do. height extended at the Bilges	<u>upper edge of floor girders</u>	<u>29</u>						
Beams, Three Decked, Spar, or Awning Decked (No.) single or double Angle Iron, Plate or Tee Bulb Iron	<u>straight and without any rise.</u>							
Single or double Angle Iron on Upper edge	<u>6 1/2 deep</u>							
Average space	<u>3 ft. 11 in. heads & 3 ft. 0 in. new.</u>							
Beams, Upper or Middle Deck (No. 4) single or double Angle Iron, Plate or Tee Bulb Iron	<u>6 x 6 1/2</u>	<u>6</u>	<u>6</u>	<u>6</u>				
Single or double Angle Iron, on Upper Edge	<u>2 1/2 x 2 1/2</u>	<u>5</u>	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>			
Average space	<u>3 feet</u>		<u>3 feet 6 inches</u>					
Beams, Lower Deck or Orlop (No. 30) single or double Angle Iron, Plate or Tee Bulb Iron	<u>6 1/2 x 6</u>	<u>6</u>	<u>6</u>	<u>6</u>				
Single or double Angle Iron on Upper Edge	<u>2 1/4 x 2 1/4</u>	<u>5</u>	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>			
Average space	<u>on every second & fourth frame</u>		<u>3 feet</u>					
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	<u>18</u>	<u>8</u>	<u>10 3/4</u>	<u>6</u>				
Do. Bulb Plate to Intercostal Keelson	<u>14</u>	<u>8</u>		<u>6</u>				
Do. Size of Angle Irons	<u>3</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		
Do. Side Intercostal Keelson, size of Plates	<u>3</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		
Do. Angle Irons on tops of Floors	<u>6</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		
Do. Bilge Keelson, Bulb Iron	<u>6</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		
Do. do. Angle Irons	<u>6</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		
Do. Side Stringers (No. 1 pair) size of Angle Irons	<u>6</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>6</u>		

	Inches in Ship	16ths in Ship	Inches required per Rule	16ths required per Rule
Flat Keel Plates, breadth and thickness	<u>See sketch</u>	<u>in first entry report</u>		
Plates in Garboard Strakes, breadth and thickness	<u>29</u>	<u>9</u>	<u>30</u>	<u>9</u>
Do. from Garboard to upper part of Bilges	<u>29</u>	<u>9</u>	<u>30</u>	<u>9</u>
Do. of doubling at Bilge, or increased thickness, and length applied				
Do. from upper part of Bilge to lower edge of Sheerstrake	<u>29</u>	<u>9</u>	<u>30</u>	<u>9</u>
Do. Sheerstrake, breadth and thickness	<u>29</u>	<u>9</u>	<u>30</u>	<u>9</u>
Do. of doubling at Sheerstrake, and length applied				
Butt Straps to outside plating, breadth and thickness	<u>8 1/2</u>	<u>8 1/2</u>	<u>8 1/2</u>	<u>8 1/2</u>
Lengths of Plating	<u>9 ft. old work & 12 ft. in new</u>			
Shifts of Plating, and Stringers	<u>4 1/2</u>	<u>3.6</u>		
Gunwale Plate on ends of Awning, or Spar 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 Deck do. do.				
How fastened to Beams	<u>See sketch</u>			
Stringer Plate on ends of Upper or Middle Deck	<u>18</u>	<u>8</u>	<u>16</u>	<u>6</u>
Beams, breadth and thickness	<u>22</u>	<u>8</u>	<u>21</u>	<u>4</u>
Angle Irons on ditto	<u>3 x 3</u>	<u>8</u>	<u>3 x 3</u>	<u>6</u>
Tie Plates, outside Hatchways	<u>8</u>	<u>7</u>	<u>16</u>	<u>7</u>
Diagonal Tie Plates on Beams (No. of pairs)	<u>4</u>	<u>8</u>	<u>7</u>	<u>7</u>
Waterways materials and scantlings	<u>See sketch</u>			
Flat of Deck	<u>See sketch</u>			
How fastened to Beams	<u>See sketch</u>			
Stringer Plates on ends of Lower Deck or Orlop	<u>18</u>	<u>8</u>	<u>16</u>	<u>6</u>
Beams	<u>18</u>	<u>8</u>	<u>16</u>	<u>6</u>
Angle Irons on ditto (No. 1 on each side)	<u>3 x 3</u>	<u>6</u>	<u>3 x 3</u>	<u>6</u>
Stringer or Tie Plates, outside Hatchways	<u>3 x 3</u>	<u>6</u>	<u>3 x 3</u>	<u>6</u>
Flat of Deck	<u>See sketch</u>			
Ceiling betwixt Decks, thickness and material	<u>2 Battens</u>			
Do. in hold	<u>2 Pine 2 1/2</u>			
Clamps or Spiketting	<u>Close Ceiled to upper part of bilges</u>			
Main piece of Rudder, diameter at head	<u>3 1/4 new</u>	<u>3 1/4</u>		
Do. do. at heel	<u>2 1/4</u>	<u>2 1/4</u>		
(Can the Rudder be unshipped afloat?)	<u>yes</u>			
Bulkheads No. <u>2</u> Thickness of <u>5/16</u>				
Do. Height up <u>to Main deck</u>				
Do. How secured to the sides of the ship	<u>single frames & Keel of Plate</u>			
Do. Size of Vertical Angle Irons and their distance apart	<u>2 1/2 x 2 1/2</u>	<u>2 x 6</u>		
Do. Are the outside Plates doubled two spaces of Frames in length?	<u>yes</u>			

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

Knight-heads Engl Oak Hawse Timbers Engl Oak

Windlass Engl Oak Pall Bitt Engl Oak

The Frames extend in one length from Keel to Gunwale Riveted through plates with (3/4 in.) Rivets, about 6 apart.

The Reverse Angle Irons on the floors extend across the middle line up to the height of 1 1/4 below the hold beam stringer

On all the Frames and to above the hold beam stringer in new work, and on every alternate frame to Gunwale

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 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 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (9/16) thick, single, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? yes

Do. Edges of Sheerstrake, double or single Riveted. At upper edge single At lower edge double rivetted

Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (9/8) thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 ins.) from centre to centre. Breadth of laps in double Riveting (4 1/4) Breadth of laps in single Riveting (2 1/2)

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

Planksheer, how secured to the plating of the sides, { Explain by Sketch, } Iron Gutter Waterway Cemented

Waterway " " planksheer and to the Beams, { if necessary. }

Beams of the various Decks, how secured to the sides? welded, bracket bands riveted to frames

No. of Breasthooks, 4 Crutches, 3

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? The beams frames and other angle iron used in the new work on this vessel, from the Stockton Malleable Iron Company

Manufacturer's name or trade mark, and the plating, from the West Cumberland Cemented Iron Company Workington.

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

Joint Surveyor's Signature, John Pearson Surveyor's Signature, J. W. Miles

1210-50127

* copy of sheet tracks 1/16 thick, also the bilge keelsons and side stringers which are much larger than required in date of 1862 for 100 A. The drawings referred to are in my opinion fully complied with the requirements of the Board of Trade. I have been produced from the Messrs. Robert & Co. Ltd. and the Messrs. W. & A. G. & Co. Ltd. Publicity Company, London.

Workmanship. Are the butts of plating planed or otherwise fitted? all closely fitted

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 pieces

Do the holes for riveting 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 plate and punched from the faying surfaces? yes where seen

Are there any rivets which either break into or have been put through the seams or butts of the plating? 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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit

9677 Lm

Number for equipment		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.		CABLES, &c.		<u>Low</u>		<u>Low</u>	Bowers	<u>3</u>	<u>14.3.8</u>	<u>16.7.0.0</u>	<u>13.2.0</u>	<u>15.3.0.0</u>
Fore Sails,	Chain	<u>240</u>	<u>1 1/4</u>	<u>28 2/20</u>	<u>1 1/4</u>	<u>28 2/20</u>	(State Machine where Tested, and name of Superintendent).	<u>12.0.20</u>	<u>14.0.3.0</u>	<u>13.2.0</u>		
Fore Top Sails,	Hempen Stream	<u>90</u>	<u>1 1/2</u>	<u>new</u>	<u>1 1/2</u>		Stream	<u>1</u>	<u>6.3.13</u>		<u>6.0.0</u>	
Fore Topmast Stay Sails	Cable	<u>60</u>	<u>1 3/16</u>				Kedges	<u>2</u>	<u>5.0.0</u>		<u>3.0.0</u>	
Main Sails,	Hawser chain	<u>80</u>	<u>5 1/2</u>						<u>1.2.0</u>			
Main Top Sails,	Towlines ...	<u>90</u>	<u>5 1/2</u>	<u>new</u>	<u>5 1/2</u>							
and Spare Sails	Warp	<u>110</u>	<u>5</u>									
	All of <u>good</u> quality.											

Her Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has one Long Boat and two others

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

Engine Room Skylights. How constructed? How secured in ordinary weather?

What arrangements are there for deadlights in such for bad weather?

Coal Bunker Openings. How constructed? How are lids secured? How high above deck?

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? ports cut in bulwarks hung with hinges

Cargo Hatchways.—How formed? Plate Iron Coverings & Wood hatches State size Fore hatchway 4' 3" x 4' 5"

If of extraordinary size, state how framed and secured? After hatchway 5' 0" x 5' 0"

Hatches, themselves, whether strong and efficient? they are. 2 Main Hatchways.—State size Old 12' 0" x 8' 0" New 8' 6" x 8' 0"

Order for Special Survey No. _____ DATES of

Date _____ Surveys held

Order for Ordinary Survey No. _____ while building

Date _____ as per

No. _____ in builder's yard. Section 18.

- 1st. On the several parts of the frame, when in place, and before the plating was wrought Specially Surveyed
- 2nd. On the plating during the progress of riveting in 1863 While building under a Roof
- 3rd. When the beams were in and fastened, and before the decks were laid and now Specially
- 4th. When the ship was complete, and before the plating was finally coated or cemented Surveyed while
- 5th. After the ship was launched and equipped Lengthening, & in conformity with N^o 3 Survey

General Remarks, This vessel has now been lengthened thirty six feet amidships, proper stages made, the hold cleared, all the ceiling removed, the whole of the frames, stringers, hooks, floor plates, keelsons, ends of beams, bulkheads, rivets, and inner surface of the plating exposed, all oxidation removed by being cut or beveled off. The several parts above named, also from the outside plating, rivets, keel, stem, stowpost & rudder; the thickness of the plating ascertained by drilling at such parts as were considered necessary, and on examination found no perceptible reduction. The Cement in the bottom found to be sound & adhering satisfactorily to the Iron, has only been removed where considered necessary for examination, and in way of new work. The Windlass unpeeling wood lining, stripped off, the Windlass examined and found good; and the anchors, cables and general equipment attended to. One bulkhead has been taken out; the fore and main masts and top gallant masts, and the fore & main yards, Mizzen topmast and fibboom, most of the rigging, 1 suit of sails, 2 hawsers 90 fathoms each of 1 1/4 & 5/8, 1 best 13 fower anchor, 1 Stream & 1 Kedge, also 340 fathoms of 1 1/4 Chain cable, and 1 boat, all new. The bottom floor and frames cemented to upper part of bilges amidships in way of new work, the Cement made good at all other parts where required, and the whole of ironwork inside and outside, coated with Paint, the Ceiling replaced and made good with part new. The deck renewed amidships with 3/4 Pitch Pine the shifts extending for 3/8 of the vessel's length diminishing at ends to 3/4 the thickness of the old portion of the deck. The Owners have requested that this vessel may now be classed 100 A under the new rules, if deemed entitled thereto. It will be seen that the top of the floors are level instead of extending up the bilge to twice the depth amidships, and the frame angle iron amidships 3 1/2 x 2 1/2 x 5/16 instead of 3 1/2 x 3 x 5/16, also the garboard strakes & sheer strakes 2 1/2 instead of 3 0 inches in breadth; but as the frames are 3 inches closer, the floors 1 1/2 & the outside plating from the garboard strakes to the lower

In what manner are the surfaces preserved from oxidation? Inside Portland Cement to bilges Paint Outside Oxide of Iron & other Paint

I am of opinion this Vessel should be Classed 100 A 1

The amount of the Entry Fee£ 5 : : is received by me, from W. J. Nelson

Travelling Expenses (if any)£ : : 13. 13. 0

Special£ 8 : : 1. 1. 0 Paid Joint Surveyor

Certificate : : 12. 2. 0

Committee's Minute 2nd January 1871

Character assigned 100 A 1

record lengthened
J. W. Nelson

John Pearson
John Nelson
 Lloyd's Register
 I concur in the opinion that this vessel should be classed 100 A 1.