

IRON SHIPS.

No. 1141 Survey held at Newcastle Date, First Survey 3rd Oct 1870 Last Survey 4th April 1871

On the V.S.S. "Nellie" Master Walker

Tonnage under Tonnage Deck <u>693.62</u>	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS	THREE DECKED VESSELS	Built at <u>Newcastle</u>
Ditto of Spar Deck, or Awning Deck <u>132.87</u>	Half moulded breadth <u>14.6</u>	Half Moulded Breadth....	When built <u>1871</u> Launched <u>22 Feb 71</u>
Ditto of Poop, or Raised Or Deck <u>2.05</u>	Depth from upper part of Keel to top of Upper Deck Beams <u>17.52</u>	Total Depth if three or more Decks.....	By whom built <u>W. B. Hornby</u>
Ditto of Houses on Deck <u>18.78</u>	Girth of Half Midship Frame (as per Rule) <u>28.6</u>	Total Girth of Half Midship Frame.....	Owners <u>Gray, Taylor & Co.</u>
Ditto of Forecastle <u>247.32</u>	1st Number <u>60.4</u>	3rd Number.....	Port belonging to <u>Whitby</u>
Gross Tonnage <u>28.10</u>	Length <u>215.8</u>	Length.....	Destined Voyage <u>Copenhagen</u>
Crew Space, as per Rule <u>271.14</u>	2nd Number <u>13034</u>	4th Number....	If Surveyed while Building, Afloat, or in Dry Dock. <u>while building.</u>
Register Tonnage, as a <u>548.00</u>	Depths to Length <u>13.5</u>	Breadths to Length.....	

Length on deck as per Rule 215 Moulded Breadth 29 Feet. Inches. 10 0 Depths from top of Floors to Upper Deck Beams, as per Rule 15 Feet. Inches. 11 Power of Engines, 90 Horse. N^o. of Decks, one N^o. of Tiers of Beams two

Dimensions of Ship per Register, length 217.4 breadth 28.9 depth 15.55

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, $\frac{1}{2}$ bar iron, depth and thickness	$8 \times 2\frac{3}{8}$	$8 \times 2\frac{3}{8}$	Plates in Garboard Strakes, breadth and thickness	30	9	30
Do. if centre through plate, depth and thickness	$8 \times 2\frac{3}{8}$	$7 \times 2\frac{3}{8}$	Do. from Garboard to upper part of Bilges	10	8	10
Stem, $\frac{1}{2}$ bar iron, moulding and thickness	$8 \times 4\frac{3}{4}$	$8 \times 4\frac{3}{4}$	Do. of doubling at Bilge, or increased thickness, and length applied	10	8	10
Stern-post for Rudder do. do.	$8 \times 4\frac{3}{4}$	$8 \times 4\frac{3}{4}$	Do. fm up. part of Bilge to l. edge of Sh'rstrake	30	12	30
Stern-post for Propeller	22	22	Do. Main Sheerstrake, breadth and thickness	30	12	30
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	22	Do. of d'bling at Sh'rstrake, & length applied	30	12	30
Frames, size of Angle Iron, for $\frac{1}{2}$ length amidships	4×3	4×3	Do. from Mn. to Up. or Spar Dk. Sh'rstrake	30	12	30
Do. for $\frac{1}{2}$ at each end	4×3	4×3	Do. Up. or Spar Dk. Sh'rstrake, breadth & thickness	30	12	30
Reversed Frames, size of Angle Iron	3×3	3×3	Butt Straps to outside plating, breadth & thickness	$16\frac{1}{2} \times 7$	$16\frac{1}{2} \times 7$	$16\frac{1}{2} \times 7$
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	$10\frac{1}{2} \times 8$	$10\frac{1}{2} \times 8$	Lengths of Plating	110	110	110
Do. at the ends	7	7	Shifts of Plating, and Stringers	44	44	44
Do. do. do. at Bilge Keelson	12	12	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	31	10	31
Do. height extended at the Bilges	37	37	Angle Iron on ditto	$4 \times 4 \times 7$	$4 \times 4 \times 7$	$4 \times 4 \times 7$
Beams, Upper, Spar, or Awning Deck (No. 57)	$7\frac{1}{4} \times 7$	$7\frac{1}{4} \times 7$	Tie Plates (fore and aft), outside Hatchways	10	8	10
Single or double Angle Iron, Plate or Tee Bulb Iron	$2\frac{3}{4} \times 6$	$2\frac{3}{4} \times 6$	Diagonal Tie Plates on Beams (No. of Pairs, 4)	10	8	10
Single or double Angle Iron on Upper edge	$2\frac{3}{4} \times 6$	$2\frac{3}{4} \times 6$	Planksheer material and scantling	$3\frac{3}{4}$	$3\frac{3}{4}$	$3\frac{3}{4}$
Average space	$on alternate frames$	$on alternate frames$	Waterways do. do.	$3\frac{3}{4}$	$3\frac{3}{4}$	$3\frac{3}{4}$
Beams, Main or Middle Deck (No.) single or double Angle Iron, Plate or Tee Bulb Iron	$7\frac{1}{4} \times 7$	$7\frac{1}{4} \times 7$	Flat of Deck do. do.	$3\frac{3}{4}$	$3\frac{3}{4}$	$3\frac{3}{4}$
Single or double Angle Iron on Upper Edge	$2\frac{3}{4} \times 6$	$2\frac{3}{4} \times 6$	How fastened to Beams	$by rivets & a new bolt.$	$by rivets & a new bolt.$	$by rivets & a new bolt.$
Average space	$on every fourth frame$	$on every fourth frame$	Stringer Plate on ends of Main or Middle Deck	23	7	23
Beams, Lower Deck, Hold or Orlop (No. 20)	$7\frac{1}{4} \times 7$	$7\frac{1}{4} \times 7$	Beams, breadth and thickness	23	7	23
Single or double Angle Iron, Plate or Tee Bulb Iron	$2\frac{3}{4} \times 6$	$2\frac{3}{4} \times 6$	(Is the Stringer Plate attached to the outside plating?)	Yes	Yes	Yes
Single or double Angle Iron on Upper Edge	$2\frac{3}{4} \times 6$	$2\frac{3}{4} \times 6$	Angle Irons on ditto (No. 2)	$3\frac{1}{2} \times 7$	$3\frac{1}{2} \times 7$	$3\frac{1}{2} \times 7$
Average space	$on every fourth frame$	$on every fourth frame$	Stringer or Tie Plates, outside Hatchways	10	7	10
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	18×8	18×8	Flat of Deck	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$
Do. Bulb Plate to Intercoastal Keelson	4×4	4×4	Ceiling betwixt Decks, thickness and material	3	3	3
Do. Size of Angle Irons	4×4	4×4	Do. in hold do. do.	3	3	3
Do. Side Intercoastal Keelson, size of Plates	4×4	4×4	Main piece of Rudder, diameter at head	5	5	5
Do. Angle Irons on tops of Floors	4×4	4×4	Do. do. at heel	3	3	3
Do. Bilge Keelson, Bulb Iron	$7\frac{1}{4} \times 7$	$7\frac{1}{4} \times 7$	(Can the Rudder be unshipped afloat? <u>Yes</u>)			
Do. do. Intercoastal plates riveted to plating for length	4×4	4×4	Bulkheads No. <u>4</u> Thickness of <u>5/16</u>			
Do. do. Angle Irons	4×4	4×4	Do. Height up <u>upper deck</u>			
Side Stringers (No. <u>one</u>) size of Angle Irons	4×4	4×4	Do. How secured to the sides of the ship <u>by double frames</u>			
Do. Intercoastal plates riveted to plating for length	4×4	4×4	Do. Size of Vertical Angle Irons, $3 \times 3 \times 6$ and their distance apart, <u>30"</u>			
Transoms, material <u>iron</u> or, if none, in what manner compensated for.			Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes.</u>			
Knight-heads <u>iron</u> Hawse Timbers <u>iron & wood</u>						
Windlass <u>Patent, iron</u> Pall Bitt <u>iron</u>						
The Frames extend in one length from <u>Keel</u> to <u>gunwale</u>						
The Reverse Angle Irons on the floors and frames extend across the middle line to <u>Upper turn of bilge</u> and to <u>gunwale</u> alternately						
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u>						
Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets ($1 \times \frac{3}{4}$ in.) diameter, averaging ($5 \times 3\frac{1}{2}$ ins.) from centre to centre.						
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ($\frac{3}{4}$ in.) diameter, averaging ($3\frac{1}{4}$ ins.) from centre to centre.						
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (8×9) thick, double or single Riveted; with Rivets ($\frac{3}{4}$ in.) diameter averaging ($3\frac{1}{4}$ ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>No</u>						
Do. of <u>2</u> Strakes at Bilge for <u>1/2</u> length, treble riveted with Butt Straps <u>one</u> thicker than their plates.						
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece (<u>one</u>) thick, or clencher, double or single riveted; with rivets ($\frac{5}{8}$ in.) diameter, averaging ($2\frac{1}{2}$ ins.) from centre to centre.						
Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>single</u> At lower edge <u>double</u>						
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ($\frac{7}{16}$) thick, double or single Riveted; with Rivets ($\frac{5}{8}$ in) diameter, averaging ($2\frac{1}{2}$ 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 <u>1/2</u> length amidships. Breadth of laps of plating in double Riveting ($\frac{4}{2}$) Breadth of laps of plating in single Riveting ($\frac{5}{4}$)						
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>double and treble riveted</u>						
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)						
Beams of the various Decks, how secured to the sides? <u>welded & riveted</u> No. of Breasthooks, <u>4</u> Crutches, <u>3</u>						
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. <u>Frames & angles from Fraser, Roberts & Co.</u>						
Manufacturer's name or trade mark, <u>Beams - John Wilson & Bell; Plating - Palmer & Co.</u>						
We certify that the above is a correct description of the several particulars therein given.						
Builder's Signature, <u>W. B. Hornby</u> Surveyor's Signature, <u>A. Reed</u>						

IRON 448-0269

Workmanship. Are the butts of plating planed or otherwise fitted? *otherwise fitted* 8918 *Iron*
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 single pieces*
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *fairly so* 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*

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

No.	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.	Weight req'd per Rule.	Test req'd per Rule.
	Number for equipment <i>14 33%</i>												
	Fore Sails,	Chain	<i>270</i>	<i>1 1/6</i>	<i>34.0.0.0</i>	<i>1 1/6</i>	<i>34.0.0.0</i>						
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent.)	<i>Attenton P.H. M.H. Read, Capt.</i>										
	Fore Topmast Stay Sails	Hempen Stream Cable	<i>75</i>	<i>3/4</i>									
	Main Sails,	Hawser	<i>70</i>	<i>8</i>		<i>8</i>							
	Main Top Sails,	Towlines ...	<i>70</i>	<i>6 1/2</i>		<i>5</i>							
		Warp	<i>70</i>	<i>5 1/2</i>									
		All of <i>good</i> quality.	<i>29</i>	<i>3</i>									

Her Standing and Running Rigging *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 *good* and Rudder *good* Pumps *good and sufficient*
Engine Room Skylights.—How constructed? *solid shutters & bullseyes* How secured in ordinary weather? *hatted down*
What arrangements are there for deadlights in such for bad weather? *bullseyes are covered with tarpaulins.*
Coal Bunker Openings.—How constructed? *of cast iron* How are lids secured? *cap lids* How high above deck? *about 5 1/2*
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, and mooring pipes &c., on each side

Cargo Hatchways.—How formed? *as usual* (State size *Fore 14.8 x 10.0*
If of extraordinary size, state how framed and secured? *ordinary size* *Mizzen 14.8 x 10.0*
What arrangement for shifting beams? *bullplate & double angles*
Hatches, themselves, whether strong and efficient? *yes* Main Hatchways.—State size *22.0 x 10.0*

Order for Special Survey No. *707* DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought } *built*
Date *22 Sept 1878* Surveys held 2nd. On the plating during the progress of riveting } *under*
Order for Ordinary Survey No. *—* while building 3rd. When the beams were in and fastened, and before the decks were laid } *special*
Date *—* as per 4th. When the ship was complete, and before the plating was finally coated or cemented } *Survey.*
No. *10* in builder's yard. Section 18. 5th. After the ship was launched and equipped }

General Remarks, *Length of Poop 105 feet Forecastle 22 feet.*
This vessel is fitted with water ballast tanks (top plating 5/16) before and abaft the engine room.

In what manner are the surfaces preserved from oxidation? Inside *by cement and paint* Outside *paint & composition.*

I am of opinion this Vessel should be Classed *90A.1.*

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

Special£ *40.19* :
Certificate

(Travelling Expenses)
(if any) £ *—*

Committee's Minute *18 April* 18*78*

Character assigned *90A.1*

This vessel built under S.S. appears eligible for Classification 90A.1 as recommended above. The first 14 water ballast tanks not fitted.
April 17/78