

IRON SHIP.

Survey held at Dundarton Date, First Survey 22nd March Last Survey 9th September 1870
 the Screw Pr. Amsterdam Master Laurence

NAGE under
 Tonnage Deck 497.60
 of Poop, 0.30
 of Houses 39.42
 on Deck 26.84
 of Forecastle 22.41
 Tonnage 586.65
 Free Space 40.07

Engine Room 223.76
 Tonnage 322.02
 on Beam

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING DECKED VESSEL.
 HALF BREADTH (moulded) 13.42
 DEPTH from upper part of Keel to top of Upper Deck Beams 15.66
 GIRTH of Half Midship Frame (as per Rule) 25.74
 1st NUMBER 54.042
 2nd NUMBER 193.5
 PROPORTIONS—Breadths to Length 7.2
 Depths to Length—Upper Deck to Keel 12.29
 Main Deck ditto 12.29

Built at Dundarton
 When built 1070 Launched 2nd Aug 70
 By whom built Birrell Stenhouse & Co
 Owners Jas Rankine & Son
 7 Sauchiehall St
 Port belonging to Glasgow
 Destined Voyage Ind.
 Surveyed while Building, Afloat, or in Dry Dock.

GTH deck as Rule 193.5 Breadth—Moulded 26.84 DEPTH top of Floors to Upper Deck Beams 14.35 Power of Engines 115 Horse. 115 N^o. of Decks with flat laid 1 N^o. of Tiers of Beams 2

Dimensions of Ship per Register, length, 196.5 breadth, 27.15 depth, 14.45

	Inches in Ship.	Inches per Rule.
EL, depth and thickness	<u>4 1/2 x 2 1/2</u>	<u>4 1/2 x 2 1/2</u>
AM, moulding and thickness	<u>4 x 2 1/2</u>	<u>7 x 2 1/2</u>
ARN-POST for Rudder do. do.	<u>4 x 4 1/2</u>	<u>7 x 4 1/2</u>
" for Propeller	<u>7 x 4 1/2</u>	<u>7 x 4 1/2</u>
ance of Frames from moulding edge to moulding edge, all fore and aft	<u>22 00</u>	<u>100A</u>
AMES, Angle Iron, for 3/4 length amidships	<u>3 1/2 3 6</u>	<u>3 1/2 3 6</u>
o. for 1/2 at each end	<u>3 1/2 3 5</u>	<u>3 1/2 3 5</u>
VERSED FRAMES, Angle Iron	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
DOORS, depth and thickness of Floor Plate	<u>18 1/2 - 6</u>	<u>15 1/2 - 6</u>
mid line for half length amidships	<u>7 1/2</u>	<u>4 1/2</u>
thickness at the ends of vessel	<u>31</u>	<u>31</u>
depth at 3/4 the half-bdth. as per Rule	<u>6 3 7</u>	<u>as approved</u>
1/2 height extended at the Bilges	<u>5 3 6</u>	<u>5 3 6</u>
AMS, Upper, Spar, or Awning Deck	<u>4 1/2</u>	<u>4 1/2</u>
le or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u>6 1/2 6</u>	<u>6 1/2 - 6</u>
le or double Angle Iron on Upper edge	<u>2 1/2 2 1/2 6</u>	<u>2 1/2 2 1/2 6</u>
verage space	<u>4 1/2</u>	<u>4 1/2</u>
AMS, Main, or Middle Deck	<u>6 1/2 6</u>	<u>6 1/2 - 6</u>
le or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u>2 1/2 2 1/2 6</u>	<u>2 1/2 2 1/2 6</u>
le or double Angle Iron, on Upper Edge	<u>4 1/2</u>	<u>4 1/2</u>
verage space	<u>6 1/2 6</u>	<u>6 1/2 - 6</u>
AMS, Lower Deck, Hold, or Orlop	<u>3 2 1/2 6</u>	<u>as approved</u>
le or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
le or double Angle Iron on Upper Edge	<u>6 1/2 - 6</u>	<u>6 1/2 - 6</u>
verage space	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
ELSONS Centre line, single or double plate	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
on, or Intercoastal, Plates	<u>6 1/2 6</u>	<u>6 1/2 - 6</u>
Bulb Plate to Intercoastal Keelson	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
Angle Irons	<u>5 - 5</u>	<u>5 - 5</u>
Double Angle Iron Side Keelson	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
Side Intercoastal Plate "Wash"	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
do. Angle Irons	<u>6 1/2 - 6</u>	<u>6 1/2 - 6</u>
Attached to outside plating with angle iron	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
Angle Irons	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
do. Bulb Iron	<u>6 1/2 - 6</u>	<u>6 1/2 - 6</u>
do. Intercoastal plates riveted to plating for length	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
STRINGER Angle Irons	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>
Intercoastal plates riveted to plating for length		
STRINGER Angle Irons		

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness	<u>32</u>	<u>9</u>	<u>32</u>	<u>9</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	<u>25</u>	<u>9</u>	<u>25</u>	<u>9</u>
of doubling at Bilge, or increased thickness, and length applied	<u>33</u>	<u>12</u>	<u>33</u>	<u>12</u>
fm up part of Bilge to l. edge of Sh'rstrake	<u>40 1/2 and 29 1/2</u>	<u>9 3/4</u>	<u>as approved</u>	
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake	<u>16 1/2 9 1/2 13</u>	<u>16 1/2 9 1/2 15</u>		
Up or Spar Dk Sh'rstrake, brdth & thickness	<u>6 frames</u>	<u>3 frames</u>		
Butt Straps to outside plating, breadth & thickness	<u>2 frames</u>	<u>2 frames</u>		
Lengths of Plating	<u>20 6</u>	<u>20 6</u>		
Shifts of Plating, and Stringers	<u>3 3 1/2</u>	<u>3 3 1/2</u>		
Gunwale Plate on ends of Plating, Spar, or Upper Deck Beams, breadth and thickness	<u>3 3 1/2</u>	<u>3 3 1/2</u>		
Angle Iron on ditto	<u>7 6</u>	<u>7 6</u>		
Tie Plates fore and aft, outside Hatchways	<u>3 3 1/2</u>	<u>3 3 1/2</u>		
Diagonal Tie Plates on Beams No. of Pairs	<u>7 6</u>	<u>7 6</u>		
Planksheer material and scantling	<u>Teak</u>			
Waterways do. do.	<u>Gutter 2 1/2 in Deck</u>			
Flat of Upper Deck do. do.	<u>2 1/2</u>	<u>2 1/2</u>		
How fastened to Beams	<u>3</u>	<u>3</u>		
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<u>40 9</u>	<u>40 9</u>		
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>			
Angle Irons on ditto, No. 1	<u>4 1/2 3 7</u>	<u>4 1/2 3 7</u>		
Tie Plates, outside Hatchways	<u>9 7</u>	<u>9 7</u>		
Diagonal Tie Plates on Beams, No. of pairs	<u>3 1/2</u>	<u>3 1/2</u>		
Waterways materials and scantlings	<u>Teak Margin</u>			
Flat of Middle Deck do. do.	<u>3 1/2</u>	<u>3 1/2</u>		
How fastened to Beams	<u>Indented Bolt</u>			
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>23 7</u>	<u>23 7</u>		
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>			
Angle Irons on ditto, No. 2	<u>5 1/2 3 7</u>	<u>5 1/2 3 7</u>		
Stringer or Tie Plates, outside Hatchways	<u>9 7</u>	<u>9 7</u>		
Flat of Lower Deck	<u>3 1/2</u>	<u>3 1/2</u>		
Ceiling betwixt Decks, thickness and material	<u>2 1/2</u>	<u>2 1/2</u>		
" in hold do. do.	<u>4 1/2</u>	<u>4 1/2</u>		
Main piece of Rudder, diameter at head	<u>2 1/4</u>	<u>2 1/4</u>		
do. at heel				
Can the Rudder be unshipped afloat?	<u>Yes</u>			
Bulkheads No. 5 Thickness of 5/16				
" Height up Main Deck				
" How secured to sides of ship	<u>Double frames</u>			
" Size of Vertical Angle Irons 3 x 2 1/2 x 5/16 and distance apart	<u>30 ins.</u>			
" Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>			

ms, material. Knight-heads. Hawse Timbers. Plate iron
 ss Iron Patent Pall Bitt

AMES extend in one length from Keel to Stringer plates Riveted through plates with 3/4 in. Rivets, about 6 apart.
 REVERSED ANGLE IRONS on floors and frames extend from middle line to above lower deck and to Main deck alternately
 GONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes
 NG. Garboard, double riveted to Keel, with rivets 1 in. diameter, averaging 5 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.
 Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/6 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted
 Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2
 Laps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part treble the rest double
 y, how secured to Beams Gutter Waterway (Explain by Sketch, if necessary.)
 f the various Decks, how secured to the sides? Forged knee ends No. of Breasthooks, 3 Crutches, 3
 escription of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. Drumfeller Blackline
 turer's name or trade mark, Drumfeller Blackline

above is a correct description.

's Signature, Birrell Stenhouse & Co Surveyor's Signature, W. Drumfeller

Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 480-0119

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed where practicable*
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*
Are the fillings between the ribs and plates solid single pieces? *Yes*
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*
Do any rivets break into or through the seams or butts of the plating? *Very few*

Masts, Bowsprit, Yards, &c., are *Iron* in *good* condition, and sufficient in size and length. If of Iron or Steel give
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 Mast and Bowsprit
Pole masts of Dutch Pine

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test per Rule.
11660		100.	1 1/2	42.2.2	210 1 1/2	42.2.2	13133	13.2.25	13.0.0.17	13 1/2	15 1/2	15 1/2
SAILS.		Chain	105				13135	13.2.11	13.3.5.21	13 1/2	13 1/2	13 1/2
Fore Sails,		(State Machine where tested, date, & name of Superintendent.)					13154	11.2.13	13.10.0.0	11 1/2	13 1/2	13 1/2
Fore Top Sails,		LPHN No. 14056	14093	Certificates signed D. Lewis dated 17 8 20 May 1870			12650	4.2.24	7.2.2.0	6 1/2	10 1/2	10 1/2
Fore Topmast Stay Sails		Strm Cbl	90 3/4	17.16.0	60 1/2	11 1/2	Stream	13136	2.1.7	4.17.2.0	3	4 1/2
Main Sails,		Hawser ...	10	11.17.2	48 9 1/2	17 1/2	Kedges		2.3.23		1 1/2	
Main Top Sails,		Towlines ...	7 1/2	29.5.70	90 7	4						
and		Warp ...										
		quality	good									

Standing and Running Rigging *Anchor* sufficient in size and *good* in quality. She has *one* life long Boat and *2* others

The Windlass is *Iron Patent* Capstang *Iron* and Rudder *good* Pumps *good*

Engine Room Skylights. How constructed? *on windship house* How secured in ordinary weather? *by bolts*

What arrangements for deadlights in bad weather? *Gratings and tarpaulins*

Coal Bunker Openings. How constructed? *flush deck* How are lids secured? *by bolts* Height above deck? *flush*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *3 ports and 3 scuppers on each side*

Cargo Hatchways. How formed? *Iron Cornings*

State size Main Hatch *13' x 0'* Forehatch *7' 2" x 5'* Quarterhatch *11' x 0'*

extraordinary size, state how framed and secured? *one iron shifting beam in main hatchway*

What arrangement for shifting beams?

Hatches, If strong and efficient? *Yes.*

Order for Special Survey No. <i>1341</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>March 22. 25. 28. Apr 2. 5. 8. 11. 16. 25. 29. May 2. 6. 9.</i>
Date <i>March 28/70</i>	2nd. On the plating during the process of riveting	<i>16. 21. 27. 31. June 3. 6. 10. 13. 17. 20. 24. 27. July 4. 9.</i>
Order for Ordinary Survey No. <i>1341</i>	3rd. When the beams were in and fastened, and before the decks were laid....	<i>18. 23. 31. Aug 5. 8. 12. 15. 19. 22. Sept 2. 9. 1070</i>
Date <i>March 28/70</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>31</i> in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.)

The workmanship is good. She is built in accordance with the appended approved indship section and their plan and with the requirements of the Secretary's letter dated 19th February 1870

State if one, two, or three decked vessel, ~~if open, or awning decked~~, and the lengths of poop, forecastle, ~~on raised quarter deck~~, and the length of double, or part double

How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *+ 100 A1.*

The amount of the Entry Fee ... £ 5 : : : is received by me, *Sept 11th*

Special ... £ 27 : 7 : : *Sept 11th* 1870

Certificate ... *British*

(Travelling Expenses, if any, £ 6.6/4.)

Committee's Minute 13th September, 1870

Character assigned

Lloyd's Register

Surveyor to Lloyd's Register of British and Foreign Ships

This vessel appears to be classed 100 A1 - recommended.

Lloyd's Register Foundation