

IRON OR STEEL SHIP.

(Received at London Office, 23887)

No. 23887 Survey held at *Hull* Date of writing Report

Port of *Newcastle* Date, First Survey *25 February 1899* Last Survey *22 Dec 1890*

On the *Steamer "Moragshire"*

Rig *Brig* Master *J. Coull*

Year of appointment (1) As master in service of owner of present vessel = 18 (2) As master of this vessel = 18

Built at *Hull*

When built *1890* Launched *9 Dec 1890*

By whom built *Hawthorn Leslie & Co*

Owners *Elderlie & Co Ltd*

Managers *Turnbull Martin & Co*

Residence *Glasgow*

Port belonging to *Glasgow*

Destined Voyage *Australia via Panama*

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

Tonnage under {
Tonnage Deck 3070.85
between Tonnage Dk.
and 3rd, 4th, Spar or
Awning Dk.
Total under Upper Dk.
of Poop 643.68
of Raised Qr. }
k. of Break }
of House }
of House on Deck }
of excess of Hatchways }
No. of Forecastle }
Gross Tonnage 3822.18
Less Crew Space 106.04
Machinery 3716.14
Less Engine Room 1253.10
Register Tonnage 2463.05

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

Half Breadth (moulded) ... 23.65

Depth from upper part of Keel to top of Upper Deck Beams 28.00

Girth of Half Midship Frame (as per Rule) ... 45.39

1st Number ... 99.04

1st Number, if a 3-Decked Vessel deduct 7 feet 90.04

Length ... 348.16

2nd Number ... 312.48

Proportions— Breadths to Length ... 7.36

Depths to Length—Upper Deck to Keel ... 12.43

Main Deck ditto ... 17.40

Dimensions of Ship per Register, length 348.16 breadth 47.40 depth 24.15

EEL, depth and thickness ... 11 x 3
EEL, moulding and thickness ... 11 x 3
TURN POST for Rudder do. do. ... 11 x 4
" for Propeller ... 11 x 4
Distance of Frames from moulding edge to moulding edge, all fore and aft ... 24

FRAMES, Angle Iron for 1/2 length amidships ... 5 1/2 x 3/2
Do. for 1/4 at each end ... 5 1/2 x 3/2
REVERSED FRAMES, Angle Iron ... 5 1/2 x 3/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... 7
thickness at the ends of vessel ... Cellular plating
depth at 1/2 the half-bdth. as per Rule ... 7
height extended at the Bilges ... 7

BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... 9 1/2 x 10
Single or double Angle Iron on Upper edge ... 3 1/2 x 3/2
Average space ... 10
BEAMS, Main, or Middle Deck ... 10 1/2 x 10
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... 3 1/2 x 3/2
Single or double Angle Iron on Upper Edge ... 3 1/2 x 3/2
Average space ... 10
BEAMS, Lower Deck ... 10 1/2 x 10
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... 3 1/2 x 3/2
Single or double Angle Iron on Upper Edge ... 3 1/2 x 3/2
Average space ... 10

BEAMS, Hold, or Orlop—Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ... 3 1/2 x 3/2
Single or double Angle Iron on Upper Edge ... 3 1/2 x 3/2
Average space ... 10
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates ... 4 1/2 x 10
Rider Plate ... 9
Bulb Plate to Intercoastal Keelson ... 9
Angle Irons ... 28 x 8
Double Angle Iron Side Keelson ... 28 x 8
Side Intercoastal Plate ... 28 x 8
do. Angle Irons ... 28 x 8
Attached to outside plating with angle iron

BILGE Angle Irons ... 28 x 8
do. Bulb Iron ... 28 x 8
do. Intercoastal plates riveted to plating for length
BILGE STRINGER Angle Irons ... 28 x 8
Intercoastal plates riveted to plating for length
SIDE STRINGER Angle Irons ... 28 x 8

The FRAMES extend in one length from Keel to Gunwale
The REVERSED ANGLE IRONS on floors and frames extend from middle line to Main deck and to Upper
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes
PLATING. Garboard, double riveted to Keel, with rivets 1 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/8 ins. from centre to centre.
Butts of Strakes at Bilge for all length, treble riveted with Butt Straps 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/8 ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted.
Butts of Main Sheerstrake, treble riveted for all length amidships.
Butts of Main Stringer Plate, treble riveted for all length amidships.
Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
Butts of Upper or Spar Stringer Plate, treble riveted for length.

Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting 5
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? No. of Breasthooks, 5 Crutches, 4
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plate Consist of Mild Steel & Angles Dorman Long & Co
Manufacturer's name or trade mark, The above is a correct description.

Builder's Signature, *W. A. Macnaught* Surveyor's Signature, *C. Montelberg*
Surveyor to Lloyd's Register of British and Foreign Shipping.

Do the edges of the carvel work and 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*
to plate, &c., conform well to each other? *Yes*
from the faying surfaces? *Yes*
Do the holes for riveting plate to frames, butt straps, or plate
Are the rivet holes well and sufficiently countersunk in the plate and punched
Do any rivets break into or through the seams or butts of the plating? *After*

Masts, Bowsprit, Yards, &c., are *in good* condition, and sufficient in size and length. If of Iron or Steel give scantlings of
Putting, Angle Iron, &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 *Foremast 92 feet 24" diam Mainmast 84 feet 6" - 24" diam - 2 plates in round edges double riveted*
butts triple riveted. Spliced at leading plate 7/16 to 6/16
other span pitch pine -

37501											
Number for Equip- ment	CABLES, &c.		Inches.	Test per Certificate Tons.	Fathoms & Inches per Rule.	Machine where Tested and Superintendent, also Name of Chain Maker.	ANCHORS.	Weight.	Test per Certificate	W't req'd per Rule.	Machine where Tested and Superintendent, also Name of Anchor Maker.
Letter for do.	Number of Certificate.	Fathoms.					Number of Certificate (State if any are which Anchors are Stockless.)	Ex. Stock.			
N ^o .	SAILS.										
Fore Sails,											
Fore Top Sails,											
Fore Topmast Stay Sails,											
Main Sails,											
Main Top Sails, and quality											
	Iron Stream Casin or Steel Wire										
	Hawson Str'm Cabl										
	TOWLINE										
	Hawson Steel Wire.										
	Hawson										
	Warp										
	</										

Standing and Running Rigging *Chain* sufficient in size and *Good* in quality. She has *2* Long Boats and *4* others
The Windlass is *Iron* *Palms* *Capstan* *Winch* and *Rudder* *Good*
Engine Room Skylights. How constructed *Iron Coaming* How secured in ordinary weather? *Leak Tatches*
What arrangements for deadlights in bad weather? *Glass* *Blue* *Eye*
Coal Bunker Openings. How constructed *Iron Coaming* How are lids secured? *Latches* Height above deck? *15"*
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *Port* *Scuppers*
Cargo Hatchways. How formed *Iron Coaming*
State size *Main Hatch 16x12 No 2 - 24x12 Fore hatch 16x12* Hatches, If strong and efficient? *3* *Solid*
If of extraordinary size, state how framed and secured. *Quarter hatch 10x4 - 12x8*
What arrangement for shifting beams? *Mr*

Order for Special Survey No. *258*
Date *10 Dec 1888*
Order for Ordinary Survey No. *293*
Date *293*
No. *293* in builder's yard.
State dates of letters respecting this case *Nov 5/88 - August 8/89 Memo letter August 2/88*
General Remarks (State quality of workmanship, &c.)
This is a three decked vessel & sister to the screw steamer
Northshire La Newcastle Report No 23164. Built in
accordance with the Rules & approved plans has a
cellular double bottom for 10 ft which has been
tested by water pressure a few Rules and found
satisfactory. Workmanship & Material good.

How are the surfaces preserved from oxidation? Inside *Pullard Cement Paint* Outside *Paint*
Particulars for Record in R.B. - Length of Poop *208* ft., R.Q.D. *208* ft., Bridge Dk. *208* ft., F'castle *208* ft.; No. of Dks. (excluding spar, awn., &c.) *2*
Material of dks. *Iron* If spar, awn. dk., &c. *Iron* Material of spar, awn. dk., &c. *Iron*; No. of tiers of beams (with and without dks. laid) *2*
Official No. *1150*; Signal Letters *LPG*
I am of opinion this Vessel should be Classed *100* *At Steel*
The amount of the Entry Fee *£ 5* is received by me *22/4 1888*
Special *£ 114.18* is received by me *22/4 1888*
(to be sent as per margin). Certificate *100*
(Travelling Expenses, if any, £ *100*)
Committee's Minute *100*
Character assigned *100*
+ Sub 2190
A vcp
2 dks u Stl w8 web frames
well dk

Surveyor to Lloyd's Register of British and Foreign Shipping.
From the further information now received
it is submitted that this vessel appears
eligible to be Classed 100. A. 1 (Steel) as
recommended -
to who (U. Stal - H. S.) & web frames
All D.B. (particulars appended)
Well dk
12/3/88

Continuation of *Newcastle* Report No. *23887* dated *February 1900* on the
S/S "Northshire" "Morayshire"
Messrs Hawthorn Leslie & Co No 287 S/S
amendments as noted in Secretary's letter dated Aug 2/88

(1) The Web frames if $1\frac{3}{4}$ deep as proposed, to be spaced 4 frames
apart instead of 6 frames apart as proposed, and the
Bracket plates outside the flange plate to be extended
up the filges as shown in Black on the sketch of Midship
Section and as required in the case of the sister vessel
"Fifeshire"
(2) The side intercostal springers to be $9/20$ thick with double
angles & a face plate on the inner edge and as in the sister
vessel instead of as proposed.
(3) The diamond plates connecting the intercostal side
springers to the web frames to be $9/20$ thick, and the web
frames to be connected to the flange plate by double angles
as required in previous cases.
(4) The web frames in the engine & boiler space to be 18 inches deep
spaced 8 feet apart & a plan showing the arrangement
of web frames & strong beams at this part to be
submitted.
(5) The upper deck beams if under 46 feet amidships to be
 $9\frac{1}{2} \times 10\frac{1}{2}$ as required by the Rules, instead of as proposed.
(6) The hold pillars to be $4\frac{1}{2}$ dia and the tween deck pillars
 $2\frac{3}{4}$ dia as required by the Rules instead of as proposed.
(7) The upper deck to be $7/20$ thick for $\frac{1}{2}$ length amidships
reduced to $6/20$ at the ends of the vessel as required by the
Rules.
(8) The wood sheathing to the upper deck to be $3\frac{1}{2}$ thick as
required by the Rules instead of as proposed.
(9) The inner port to be extended well into the body of the vessel
and to be efficiently connected to a deep transverse plate
on the upper deck plating as required by the Rules.
(10) The upper deck stringer plate to be increased $\frac{1}{2}$ for $\frac{1}{5}$
the vessel length amidships as required by the Rules.
(11) Intermediate reversed frames to be fitted to stiffen
the inner bottom plating.
(12) The bulkheads to be connected to the decks by double angles
or by single angle of the size of the frames.
(13) Double brackets to be fitted to the sheerstrake and to side
plating as recommended, or other equivalent strength supplied
at this part to the satisfaction of the Committee.
(14) The floor plates to be connected to the centre girder by double angle
in view of the centre girder not extending to the bottom of the keel

S/S "Hawthorn" (Continued)

- (15) The painting arrangements, stringers, Keelsons and Breastworks at the ends of the vessel, also the floors above the stern tube, to be to the satisfaction of the surveyors.
- (16) The plates to be fitted at the sides of the openings in the decks or the adjacent strakes of deck plating increased in thickness.
- (17) The joints in the butts of the shell plating and stringer plates to be spaced $3\frac{1}{2}$ diameters apart from centre to centre as required by the Rules.
- (18) The middle line top plate to be $\frac{7}{20}$ thick at the ends instead of $\frac{1}{20}$ as proposed.
- (19) The Forecastle beams to be as required by the Rules instead of as proposed.
- (20) The beams at the ends of the long main Hatchways on the middle & upper decks to be as indicated on the drawing and as required in the sister vessel "Lifeshire".

C. M. M. M. M.