

# Steel IRON SHIP.

(Received at London) 12 OCT 1885

No. 750 Survey held at Dundee Date, First Survey 24<sup>th</sup> Feb<sup>y</sup> Last Survey 17<sup>th</sup> September 1885

On the S.S. "Shieldrake"

TONNAGE under Tonnage Deck 951.88 **ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.**  
 Di to 9.93 Half Breadth (moulded) 16.80  
 Ditto of 48.44 Depth from upper part of Keel to top of Upper Deck Beams 18.66  
 Ditto of 47.36 Girth of Half Midship Frame (as per Rule) 31.00  
 Di of 22.69 1st Number 65.66  
 C Tonnage 1080.30 1st Number, if a 3-Decked Vessel deduct 1 foot  
 I as Crew Space 51.74 Length 248.66  
1028.56 2nd Number 16327.01  
 Engine Room 422.12 Proportions—Breadths to Length 13.3  
 Tonnage in Beam 606.44 Depths to Length—Upper Deck to Keel 13.3  
 Main Deck ditto 13.3

Master Hore  
 Built at Dundee  
 When built 1885 Launched 13<sup>th</sup> August  
 By whom built N.B. Thompson  
 Owners Corn S.S. Co (Lind)  
 Residence Corn  
 Port belonging to Corn  
 Destined Voyage Liverpool  
 If Surveyed while Building, Afloat, or in Dry Dock. Surveyed while building

LENGTH	Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH top of Floor Plate to Upper Deck Beams	Feet.	Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
on deck as per Rule	248	8	Moulded	32	0	Deck Beams to Cellular Bottom	15	0	160	160	two	two
Dimensions of Ship per Register, length,	249.6		breadth,	32.2		depth,	15.42					
KEEL, depth and thickness												
STEM, moulding and thickness												
STERN-POST for Rudder do. do.												
" " for Propeller												
Distance of Frames from moulding edge to moulding edge, all fore and aft												
AMES, Angle Iron, for $\frac{1}{2}$ length amidships	4	3	12	4	3	12						
Do. for $\frac{1}{2}$ at each end	4	3	10	4	3	10						
REVERSED FRAMES, Angle Iron	3	3	10	3	3	10						
FLOORS, depth and thickness of Floor Plate at mid-line for half length amidships												
" thickness at the ends of vessel												
" depth at $\frac{1}{2}$ the half-birth, as per Rule												
" height extended at the Bilges												
BEAMS, Upper, Spar, or Awning Deck	5 $\frac{1}{2}$	3	13	5 $\frac{1}{2}$	3	13						
Angle of d'ble Ang. Iron, Plate or Tee Bulb Iron												
Angle or double Angle Iron on Upper edge												
Average space												
BEAMS, Main, or Middle Deck												
Angle of d'ble Ang. Iron, Plate or Tee Bulb Iron												
Angle or double Angle Iron on Upper Edge												
Average space												
BEAMS, Lower Deck	8	13		8	13							
Angle of d'ble Ang. Iron, Plate or Tee Bulb Iron												
Angle or double Angle Iron on Upper Edge	3	3	10	3	3	10						
Average space												
BEAMS, Hold, or Orlop												
Angle of d'ble Ang. Iron, Plate or Tee Bulb Iron												
Angle or double Angle Iron on Upper Edge												
Average space												
KEELSONS Centre line, <u>through</u> plate, <u>box</u> , or Intercoastal Plates	44	16										
" Bulb Plate (middle cellular bottom)	48	16										
" Bulb Plate to Intercoastal Keelson												
" Angle Irons (under middle plate)	4	4	16	4	4	16						
" Double Angle Iron Side Keelson												
" Side Intercoastal Plate												
" do. Angle Irons												
" Attached to outside plating with angle iron												
BILGE Angle Irons outside, <u>bulb</u> Keelson	3 $\frac{1}{2}$	3 $\frac{1}{2}$	7 $\frac{1}{2}$									
" do. Bulb Iron	8 $\frac{1}{2}$	7 $\frac{1}{2}$										
" do. Intercoastal plates riveted to plating for length												
BILGE STRINGER Angle Irons	5	3 $\frac{1}{2}$	15	5	3 $\frac{1}{2}$	15						
Intercoastal plates riveted to plating for $\frac{1}{2}$ length												
SIDE STRINGER Angle Irons												

The FRAMES extend in one length from Keel to gunwale  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to gunwale and to gunwale alternately  
 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 $\frac{1}{2}$  in. diameter, averaging 5 $\frac{1}{2}$  ins. from centre to centre.  
 " Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7 $\frac{1}{8}$  in. diameter, averaging 3 $\frac{3}{4}$  ins. from centre to centre.  
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7 $\frac{1}{8}$  in. diameter averaging 3 $\frac{1}{2}$  ins. from centre to centre.  
 " Butts of 3 Strakes at Bilge for  $\frac{1}{2}$  length, treble riveted with Butt Straps 7 $\frac{1}{2}$  thicker than the plates they connect.  
 " Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7 $\frac{1}{8}$  in. diameter, averaging 3 $\frac{3}{4}$  ins. from cr. to cr.  
 " Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7 $\frac{1}{8}$  in. diameter, averaging 3 $\frac{1}{2}$  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  $\frac{1}{2}$  length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.  
 " Butts of Main Stringer Plate, treble riveted for  $\frac{1}{2}$  length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length amidships.  
 " Breadth of laps of plating in double riveting 5 $\frac{1}{2}$  x 4 $\frac{1}{2}$  Breadth of laps of plating in single riveting 5 $\frac{1}{2}$  x 4 $\frac{1}{2}$   
 Butt Straps of Keelsons, Stringer and Tie Plates, treble double or single Riveted? No. of Breasthooks, 4 Crutches, 4  
 What description of Steel is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Piemonts marine steel  
 Manufacturer's name or trade mark, Steel Co of Scotland  
 The above is a correct description.  
 Builder's Signature, N.B. Thompson Surveyor's Signature, Geo. Horner  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the butts of plating planed or otherwise fitted? *planed*  
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? *few*

Masts, Bowsprit, Yards, &c., are *Steel* 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 Masts and Bowsprit

*Schooner*  
*Four masts 103 ft x 22 in } Two plates in the round 5/16 thick for 7/4 length of mast*  
*main - 106 x 22 - } to 4/16*  
*mizen - 83 x 18 - } double & single landings - tube ended butts - masts*  
*drifted at heel & partners*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.												
CABLES, &c.												
N <sup>o</sup> .	Chain	270	1 9/16	43 3/4	270-1 9/16	<i>Reheated &amp; R.W.C</i>	Bower Anchors	14606	24-1-27	24-6-1-0	23-2-0	<i>R.W.C</i>
Fore Sails,	Iron Stream Chain	<i>1m. 15015 x 6000</i>				<i>do G. Lewis &amp; J. R. H. H. H.</i>	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	19720	23-2-11	23-11-3-14	23-2-0	<i>L.P.H. H. H.</i>
Fore Top Sails,	or Steel Wire	75	1	18	75-1	<i>L.P.H.</i>		14607	19-3-5	20-12-3-7	20-0-0	<i>R.W.C</i>
Fore Topmast Stay Sails,	or Hempen Strm Cable	<i>25 8/11</i>				<i>L.P.H.</i>						
Main Sails,	Towline, Hemp.	90	3 1/2	26	90-3 1/2	<i>R.W.C</i>	Stream Anchor	19719	8-0-24	10-7-2-0	8-0-0	<i>L.P.H. H.</i>
Main Top Sails, and	or Steel Wire	90	3 1/2	22	90-3 1/2		Kedge	19718	4-1-15	6-17-2-0	4-0-0	<i>do</i>
	Hawser	90	2 1/2	12 1/2	90-2 1/2		2nd Kedge	19717	1-3-25	4-10-0-0	2-0-0	<i>do</i>
	Warp	75	7	<i>2 1/2</i>	75-7							
	quality											

Standing and Running Rigging *wire & rope* sufficient in size and *good* in quality. She has *two* Life Boats and *two* other Pumps *5 in diam.*  
The Windlass is *Emerson & Walcott (Steam)* Capstan *good* and Rudder *good*

Engine Room Skylights. How constructed? *Lean skylight on wire* How secured in ordinary weather?  
What arrangements for deadlights in bad weather? *Cranning 46 in above bridge deck - with strong brass gratings*

Coal Bunker Openings. How constructed? *Coal iron rim & cover* How are lids secured? *Bayonet fitting* Height above deck? *4 m pipe*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *Freeing ports & scuppers*

Cargo Hatchways. How formed? *Plank cranning full depth of beam*  
State size Main Hatch *24' 10" x 11 ft* Hatch *15' 5" x 10* Quarter hatch *7' 5" x 8'*

If of extraordinary size, state how framed and secured? *Not extraordinary size - The double slope side hatchway is made 7/16 thick & 2' of engine & boiler opening all the deck plating is 7/16 thick*

What arrangement for shifting beams? *Two deep web plates in main hatchway*  
Hatches, If strong and efficient? *Solid hatches 3 in.*

Order for Special Survey No. <i>466</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1885 Feb 24 27. Mar 2 5 10 12 18 21 25 30. Apr 1 3.
Date <i>3<sup>rd</sup> Feb 1885</i>	2nd. On the plating during the process of riveting	4. 9. 14 22 27 30. May 5 7 11 12 14 19 21 26. June 1 3 5.
Order for Ordinary Survey <i>71</i>	3rd. When the beams were in and fastened, and before the decks were laid....	9. 11 15 17 22 24 29. July 2 4 8 11 15 17 22. Aug 3 5 10 14.
Date <i>4<sup>th</sup></i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	17 21 24 26 31. Sep 3 9 14 16 17 -
No. <i>69</i> in builder's yard.	5th. After the ship was launched and equipped	
State dates of letters respecting this case		<i>M 29<sup>th</sup> January 1885 &amp; M 4<sup>th</sup> June 1885.</i>

General Remarks (State quality of workmanship, &c.) *This is a two decked vessel - built of steel - nearly similar to the "Arctur" Report No 4833 by the same builder & for the same owners - built in accordance with the approved plans & in other respects in accordance with the Rules*

*She is fitted with a prop 96 ft long - open framed, the engine & boiler space - under the prop - being efficiently protected with trunk bulkheads. She has also a bridge deck 27 ft long - with a through alley way on starboard side the web being iron enclosed, & a forecabin 45 1/2 ft long - In these sections all the frames run up - The vessel is constructed with a cellular double bottom 188 ft long 3 ft deep at centre line - the side girders of which - 2 on each side - are 10 3/4 thick & web 1/2 thick. The floors on alternate frames are continuous from the centre to the wing plate which is 1 1/2 thick - The central plate is 1 1/2. The middle plate of the inner bottom is 9/16 thick - beams double webbed & under the engine & boiler the plating is 1 1/2. Remainder of inner bottom is 10/16 thick - This cellular bottom is intended for water ballast & under the engine & boiler & has been tested in accordance with the rules & is satisfactory*

*The steel is marked & stamped as having been tested in the presence of the Society's surveyor, & has proved very satisfactory in working. The workmanship is very good - & equipment similar to that approved in the "Arctur"*

*State of one, two, or three decked vessel, or if open, or a wing decked, and the lengths of poop, bridge, forecabin, & raised quarter deck. (If double bottom, state particulars on separate form.)*  
How are the surfaces preserved from oxidation? Inside *Cement & paint* Outside *Paint & composition*

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

The amount of the Entry Fee .....£ 4 : 0 : 0 is received by me, *9/16*  
Special .....£ 50 : 14 : 6 *3<sup>rd</sup> Oct 1885*

(to be sent as per margin). Certificate ...  
(Travelling Expenses, if any, £ ...)

Committee's Minute *TUESDAY 13 OCT 1885* 18

Character assigned *100 A1* *Steel* *280s/100m*

*280s/100m* *Call 100 A1 Steel as recommended*

*Lloyd's Register*