

# Steel IRON SHIP.

(Received at London Office)

No. 4740 Survey held at *Dundee*  
On the *S.S. "Dresden"*

Date, First Survey *6<sup>th</sup> Dec<sup>r</sup> 1883* Last Survey *11<sup>th</sup> July* 18 *84*

Official Number *67845*  
TONNAGE under Tonnage Deck *729.43*  
Ditto of Third Spar, or of Aft Deck *38.12*  
Ditto of Poop, or of Forecastle *29.33*  
Ditto of Houses on Deck *11.05*  
Ditto of Forecastle *25.63*  
Gross Tonnage *844.94*  
Less Crew Space *47.34*  
Less Engine Room *325.75*  
Register Tonnage as cut on Beam *471.85*

ONE, OR TWO DECKED, THREE DECKED VESSEL,  
SPAR, OR AWNING-DECKED VESSEL.  
Half Breadth (moulded) *15.92*  
Depth from upper part of Keel to top of Upper Deck Beams *15.25*  
Girth of Half Midship Frame (as per Rule) *27.76*  
1st Number *58.93*  
1st Number, if 2 Decked Vessel deduct 7 feet  
Length *228.8*  
2nd Number *13483.*  
Proportions— Breadths to Length *7.2*  
Depths to Length— Upper Deck to Keel *15*  
Main Deck ditto

Master *Ayre*  
Built at *Dundee*  
When built *1884* Launched *5<sup>th</sup> June*  
By whom built *W. B. Thompson*  
Owners *Yorkshire Coal & Steam Ship Co*  
Residence *Goole*  
Port belonging to *Goole*  
Destined Voyage *Goole to Hamburg*  
If Surveyed while Building, Afloat, or in Dry Dock.  
*Surveyed while building*

LENGTH	Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH	Feet.	Inches.	Power of	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
on deck as per Rule	228	10	Moulded	31	10	top of Floors to Upper Deck Beams	13	10	Engines	150	one	one
Dimensions of Ship per Register, length, <i>230</i> breadth, <i>32</i> depth, <i>13.65</i>												
KEEL, depth and thickness <i>Iron 8 x 2 3/8</i>												
STEM, moulding and thickness <i>7 1/2 x 2 3/8</i>												
STERN-POST for Rudder do. do. <i>7 1/2 x 4 3/4</i>												
" " for Propeller <i>23 in</i>												
Distance of Frames from moulding edge to moulding edge, all fore and aft <i>23 in</i>												
FRAMES, Angle <i>Iron</i> , for 1/2 length amidships <i>3 1/2 3 12 3 1/2 3 12</i>												
Do. for 1/2 at each end <i>3 2 10 3 2 10</i>												
REVERSED FRAMES, Angle <i>Iron</i>												
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships <i>17 1/4 x 1/2</i>												
" thickness at the ends of vessel <i>10</i>												
" depth at 3/4 the half-bdth. as per Rule <i>9</i>												
" height extended at the Bilges <i>twice midship height</i>												
BEAMS, Upper, <i>Spar on Aft Deck</i>												
Single or double Angle <i>Iron</i> , Plate or Tee Bulb <i>Iron</i>												
Single or double Angle <i>Iron</i> on Upper edge <i>3 3 10 3 3 10</i>												
Average space <i>alternate frames</i>												
BEAMS, Main, or Middle Deck												
Single or double Angle <i>Iron</i> , Plate or Tee Bulb <i>Iron</i>												
Single or double Angle <i>Iron</i> on Upper Edge												
Average space												
BEAMS, Lower Deck												
Single or double Angle <i>Iron</i> , Plate or Tee Bulb <i>Iron</i>												
Single or double Angle <i>Iron</i> on Upper Edge												
Average space												
BEAMS, Hold, or Orlop												
Single or double Angle <i>Iron</i> , Plate or Tee Bulb <i>Iron</i>												
Single or double Angle <i>Iron</i> on Upper Edge												
Average space												
KEELSONS Centre line, single or double plate, <i>14 18 14 18</i>												
" Rider Plate <i>10 1/4 18 10 1/4 18</i>												
" Bulb Plate to Intercoastal Keelson <i>5 3 1/2 12 5 3 1/2 12</i>												
" Angle <i>Iron</i> <i>12 12</i>												
" Double Angle <i>Iron</i> Side Keelson <i>5 3 1/2 12 5 3 1/2 12</i>												
" Side Intercoastal Plate <i>5 3 1/2 12 5 3 1/2 12</i>												
" do. Angle <i>Iron</i> <i>5 3 1/2 12 5 3 1/2 12</i>												
" Attached to outside plating with angle <i>Iron</i> <i>5 3 1/2 12 5 3 1/2 12</i>												
BILGE Angle <i>Iron</i> <i>5 3 1/2 12 5 3 1/2 12</i>												
" do. Bulb <i>Iron</i> <i>7 1/2 12 7 1/2 12</i>												
" do. Intercoastal plates riveted to plating for <i>length</i>												
BILGE STRINGER Angle <i>Iron</i> <i>5 3 1/2 12 5 3 1/2 12</i>												
Intercoastal plates riveted to plating for <i>1/2 length</i>												
SIDE STRINGER Angle <i>Iron</i> <i>15 x 3 1/2 x 9/16 5 x 3 1/2 x 9/16</i>												
The FRAMES extend in one length from <i>Keel</i> to <i>gunwale</i>												
The REVERSED ANGLE IRONS on floors and frames extend <i>from</i> middle line to <i>hold string</i> and to <i>gunwale</i> alternately												
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? <i>Yes</i> And butts properly shifted? <i>Yes</i>												
PLATING. Garboard, double riveted to Keel, with rivets <i>1</i> in. diameter, averaging <i>5</i> ins. from centre to centre.												
" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets <i>3/4</i> in. diameter, averaging <i>3 1/2</i> ins. from centre to centre.												
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets <i>3/4</i> in. diameter averaging <i>3</i> ins. from centre to centre.												
" Butts of <i>3</i> Strakes at Bilge for <i>2</i> length, treble riveted with Butt Straps <i>1/16</i> thicker than the plates they connect.												
" Edges from Bilge to Main Sheerstrake, worked clencher, double <i>single</i> riveted; with rivets <i>3/4</i> in. diameter, averaging <i>3 1/2</i> ins. from cr. to cr.												
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets <i>3/4</i> in. diameter, averaging <i>3</i> ins. from cr. to cr.												
" Edges of Main Sheerstrake, double <i>single</i> riveted.												
" Butts of Main Sheerstrake, treble riveted for <i>1/2</i> length amidships. Butts of Upper or Spar Sheerstrake, treble riveted <i>length amidships</i>												
" Butts of Main Stringer Plate, treble riveted for <i>1/2</i> length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for <i>length</i>												
" Breadth of laps of plating in double riveting <i>4 1/2</i> Breadth of laps of plating in single riveting												
Butt Straps of Keelsons, Stringer and Tie Plates, treble <i>double</i> Riveted												
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. ? <i>See memo. Chel</i>												
Manufacturer's name or trade mark, <i>Frames - Messend</i>												
The above is a correct description. <i>Plates of Connell</i>												
Builder's Signature, <i>Pro. W. B. Thompson</i> Surveyor's Signature, <i>Geo. P. Cooper</i>												
Surveyor to Lloyd's Register of British and Foreign Shipping, <i>Robert Edmund Taylor &amp; Son</i>												



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? *no*

Masts, Bowsprit, Yards, &c., are *of 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 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 rigged*

*Foremast 65 ft 3 in - diam 21 in } Two plates in wood 5/16 x 3/4 - double riveted*  
*Main . 62 ft . 21 in } Seam - butte straps - double riveted at deck*

NUMBER for EQUIPMENT <i>14831 (M)</i>		Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.						Bower Anchors					
N <sup>o</sup> .	CABLES, &c.					1125					
Fore Sails,	Chain	240	1 7/16	37-125	240-136	1127					
Fore Top Sails,	Iron Stream Chain	60	5/16	15.8	60-156	1126					
Fore Topmast Stay Sails,	or Steel Wire ..	60	5/16	15.8	60-156	1126					
	or Hempen Strm Cable .....	90	3/4	26	90-38	Total					
Main Sails,	Towline, Hemp.	90	2	7	90-38	1132					
Main Top Sails, and	or Steel Wire ..	140	7/8	26	90-72	Stream Anchor					
	Hawser .....	180	5/8	26	90-52	Kedge					
	Warp .....	360	4/8	26	90-52	2nd Kedge					

Standing and Running Rigging *wire & rope* sufficient in size and *good* in quality. She has *Two* Life Boats and *two* others.  
The Windlass is *Patent* Capstan *good* and Rudder *good* Pumps *5 in diam.*

Engine Room Skylights.—How constructed? *Lean skylight on rim* How secured in ordinary weather? *bolts*

What arrangements for deadlights in bad weather? *Craning 24 in above bridge etc. fitted with solid shutters & bullseyes*

Coal Bunker Openings.—How constructed? *Chest in rim 4 cm* How are lids secured? *locking cranes* Height above deck? *flush under*

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

Cargo Hatchways.—How formed? *Iron cranning full depth 28 in above deck*

State size Main Hatch *28.9 x 10.6* Forehatch *11.6 x 10.6* Quarterhatch *28.9 x 10.6*

If of extraordinary size, state how framed and secured? *not extraordinary size*

What arrangement for shifting beams? *Two deep web plates in after hatchway & one in main hatchway*

Hatches, If strong and efficient? *2 3/4 in solid*

Order for Special Survey No. *453* Date *28th Nov 1883*  
Order for Ordinary Survey No. *59* in builder's yard. State dates of letters respecting this case.

General Remarks (State quality of accordance with the rules)  
REPORT, No. *4740* FROM *Dundee* DATE *5/8/84*  
ON THE *Dresden* REMARKS OF THE CHIEF SURVEYOR.

*This vessel has been built in accordance with the approved plans appended, and appears to be worthy to be classed 100 A 1 Steel as recommended (part Steel).*  
*Double Bottom particulars appended.*

*The vessel is built in accordance with the rules. The scantlings are 8 1/8 Angle iron 5 x 3 1/2 plating 5/16 - Flanged on In wood. The boiler is double bottomed. The vessel is built in accordance with the rules. The vessel is built in accordance with the rules.*

*The material, stamped B & marked as having been tested by the Scottish Surveyor, has proved very satisfactory. The workmanship is very good.*

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

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

The amount of the Entry Fee .....£ 3 : 0 : 0 is received by me, *28th July 1884*

Committee's Minute *TUESDAY 5 AUGUST 1884*

Character assigned *100 A 1 Steel*

No. 1  
No. 2  
Reg. B  
Master  
Engines  
Boilers  
Register  
ENGI  
Descript  
Diameter  
Diameter  
Diameter  
No. of  
No. of  
Where d  
No. of  
Constr  
Are all  
No. of  
How are  
Are all  
Are they  
Are they  
What pr  
Are all  
Are the  
When w  
Is the sc  
BOILE  
Number  
Working  
Descriptio  
Can each  
No. of sq  
Area of  
Are they  
Length of  
Diameter  
Per centag  
Size of co  
Outside di  
Greatest le  
Pitch of st  
rules  
Pitch of st  
smalles  
Greatest p  
plates  
Diameter of  
Pitch of r  
Distance be



**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? *no*

Masts, Bowsprit, Yards, &c., are *of 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 Masts and Bowsprit *Schooner rigged*

*Foremast 65 ft 3 in. diam 21 in. Two plates in wind 5/16 x 1/2 - double riveted*  
*Main 62 ft 21 in. 5 seams - butte straps - double riveted at deck*

NUMBER for EQUIPMENT 14831 (M)		Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W't req'd per Rule.	Machine where Tested & Suprntd.
SAILS.						Bower Anchors	1125	18-1-16	19-6-2-7	18-0-0	
CABLES, &c.						(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1127	17-0-19	18-7-3-4	18-0-0	
N <sup>o</sup> .	Chain .....	240	17/16	37-12-5	240-13/16		1126	16-1-3	17-11-3-14	15-1-0	
Fore Sails,	Iron Stream Chain	60	15/16	15-8	60-15/16		Total	51-3-10		51-1-0	
Fore Top Sails,	or Steel Wire ..	60	15/16	15-8	60-15/16						
Fore Topmast Stay Sails,	or Hempen Strm Cable .....	90	3/4	26	90-3/4		1132	6-2-19	8-18-3-0	6-2-0	
Main Sails,	Towline, Hemp.	90	2	7			1131	3-2-5	5-18-3-0	3-1-0	
Main Top Sails,	or Steel Wire ..	140	7/8	manilla	90-7/8		2nd Kedge	1-2-27		1-2-0	
and	Hawser .....	180	5/8		90-5/8						
	Warp .....	360	4/8								
	quality <i>fine</i>										

Standing and Running Rigging *wire & rope* sufficient in size and *fine* in quality. She has *Two* Life Boats and *two* others.  
 The Windlass is *Patent* Capstan *fine* and Rudder *fine* Pumps *5 in diam.*

Engine Room Skylights. How constructed? *Iron skylight on iron* How secured in ordinary weather? *bolted*

What arrangements for deadlights in bad weather? *Cramming 24 in above bridge etc. fitted with solid shutters & ballast*

Coal Bunker Openings. How constructed? *Cool iron 4 in* How are lids secured? *locking cranes* Height above deck? *flush under*

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

Cargo Hatchways. How formed? *Iron craning, full depth 28 in above deck*

State size Main Hatch *28.9 x 10.6* Forehatch *11.6 x 10.6* Quarterhatch *28.9 x 10.6*

If of extraordinary size, state how framed and secured? *but in ordinary size*

What arrangement for shifting beams? *Two deep web plates in after hatchway & one in main hatchway -*

Hatches, If strong and efficient? *2 3/4 in solid*

Order for Special Survey No 453  
 Date *28th Nov 1883*  
 1st. On the several parts of the frame, when in place, and before the plating was wrought } *1883 Dec 6. 18. 1884 Jan 10. 22. 29. Feb 8. 14. 26.*  
 2nd. On the plating during the process of riveting } *Mar 3. 7. 13. 18. 26. 31. Apr 3. 10. 14. 19. 23. 25. 30. May 3. 7.*  
 3rd. When the beams were in and fastened, and before the decks were laid.... } *16. 16. 17. 20. 23. 26. 30. June 2. 5. 9. 12. 20. 25. July 1. 2. 4.*  
 the ship was complete, and before the plating was finally coated or cemented... } *7. 9. 11.*  
 the ship was launched and equipped.

*Nov: 9 M 18th Dec: 1883. P 9th May 1884.*  
 ship, &c.) This is a one decked vessel built of steel in *formed plans-attached* & in other respects according

*is fitted with part double bottom, constructed of & arrangements of which are as under by. Central mid 16 - At widest part three girders 7/8 - angles 3 x 2 1/2 x 7/8. Top plate 7/8 - Length & capacity on ship attached - of engine space the deck plating where cut away for as approved by Committee - see tracing attached. has a full poop 51 ft long the front being open & the iron after part of poop placed 16 ft from front - A bridge deck bulkheaded at fore end is fitted for 45 ft & a forecabin 25*

*The material, stamped B & inrolled as having been tested by the Society's Surveyor, has formed very satisfactory. The workmanship is very fine*

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

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

The amount of the Entry Fee ..... £ 3 : 0 : 0 is received by me,  
 Special ..... £ 42 : 5 : 0 *28th July 1884*

(to be sent as per margin). Certificate ...

(Travelling Expenses, if any, £ ...)

Committee's Minute

Character assigned

TUESDAY 5 AUGUST 1884

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Surveyor to Lloyd's Register of British and Foreign Shipping

Lloyd's Register