

# IRON SHIP.

(Received at London Office, **APR 15** **APRIL 1889**)

No. 3553 Survey held at *Belfast* Date, First Survey *Mar. 14<sup>th</sup>* 1889 Last Survey *April 12<sup>th</sup>* 1889  
in the *Screw steamer "British Empire"*

Tonnage under } 2962.25 ~~ONE, OR TWO DECKED, THREE DECKED VESSEL,~~  
 Tonnage Deck } ~~SPAR, OR AWNING DECKED VESSEL.~~ Master *R. Wells* 1883, - 29

to of Third, Spar, } or Avning Deck. }	<b>Half Breadth</b> (moulded) . . . . .	<sup>Feet.</sup> 20. 34	Built at <i>Belfast</i>
to of Beam ends. }	<b>Depth</b> from upper part of Keel to top of Upper Deck Beams	30. 15	When built 1833
to of Beam ends. }			Launched 4 1837

... of 1000, or Raised Gr. Dk.)	38.21	... from upper part of keel to top of upper deck beam	46.41	When built 1858-9 Launched Feb. 28. 60
... of Houses)		Girth of Half Midship Frame (as per Rule)	46.41	By whom built John and J. P. H.

on Deck) 4.50 1st Number 96.94 Owners British Shipowner

0088 Tonnage 3019.94  
0089 Crew Space 22.48  
1st Number, if a 3-Decked Vessel .. deduct 1 foot  
29.94  
Residence Liverpool.

Length .. .. . 343.10  
2nd Number .. .. . 30263  
Port belonging to Liverpool

Engine Room	896.53	Proportions— Breadths to Length..	P. 42	Destined Voyage	Boston via London
Gister Tonnage	1460.66	Depths to Length—Upper Deck to Keel..	11.34	If Surveyed while Building, Afloat, or in Dry Dock	

as cut on Beam)

Main Deck ditto @ 13. 15-45 Specially surveyed while Building

Length		Feet.	Inches.	Breadth		Feet.	Inches.	Depth		Feet.	Inches.	Power of Engines		Horse.	No. of Decks with flat laid		No. of Tiers of Beams	
Deck as	Rule	343	2	Moulded...	40	9		Deck Beams	26	9								
								Do. do. Main Deck Beams	19	9					320			

Dimensions of Ship per Register, length, *345.6* breadth, *40.95* depth, *26.43* moulded depth *29.6*.  
Inches. 18ths. Inches. 18ths. Inches. 18ths. Inches. 18ths.  
In Ship. In Ship. per Rule per Rule  
Flat Keel Plating breadth and thickness

<b>EL</b> , depth and thickness	<i>Side. trans</i> ...	$9 \times 1\frac{1}{2}$	$9 \times 1\frac{1}{2}$	<b>PL</b> keel plates, breadth and thickness ...	...	...	...	...
<b>EM</b> , moulding and thickness...	...	$9 \times 3\frac{3}{8}$	$9 \times 3\frac{3}{8}$	<b>PLATES</b> in Garboard Strakes, br'dth & thickness	36	12	36	12
				„ From Garboard to upper part of Bilges.	11	11	12	12

<b>ERN-POST</b>	for Rudder do. do.	... ..	$1\frac{1}{2} \times G_2$	$41 \times G_2$	„ Of d'bling at Bilge, or increased thickness,	Consecutively	Consecutively
" "	for Propeller	... ..	$11 \times G_2$	$11 \times G_2$	and length applied		

stance of Frames from moulding edge to moulding edge, all fore and aft ... ..	24	(Class)	24	From up. prt of Bilge to lr. edge of Sh'rstrake..	12, 11, 12, 11, 12, 12, 11, 12, 11, 12
		(Class)	100	Main Sheerstrake, breadth and thickness.....	12, 12, 12, 12, 12, 12, 12, 12, 12, 12

JAMES, Angle <sup>Steel</sup> <del>Iron</del> , for $\frac{3}{4}$ length amidships ...	In	In	In	per Rule	per Rule	per Rule	" Of a ding at Sta strk. & ing. applied	✓	12	15	12	12	Compensated	of alter
	Ship.	Ship.	Ship.	per Rule	per Rule	per Rule								
	52	32	0	44	30	0	" From M'n to strk. or Spar Dk. Sh'rstrake. <sup>13</sup>							
				32	30	0	" Up or Spar Dk. Sh'rstrake, brdly thicknes <sup>30</sup>							

**D.O.**, for  $\frac{1}{2}$  at each end ... ..  
**REVERSED FRAMES**, Angle Iron *Steel* ... ..  
 Butt Straps to outside plating, breadth & thickness  
 Lengths of Plating

[illegible]

depth at  $\frac{3}{4}$  the half bath. as per Rule in 2. 5. 3. Sp 9 Bottom - Upper Deck Beams, breadth and thickness...  
height extended at the Bilges... Bkts. 69 60 Brackets Angle <sup>floor</sup> iron on ditto ...  $4\frac{1}{2} \times 4\frac{1}{2} \times 12$   $4 \times 4 = 9$

[illegible]

Single or double Angle Iron on Upper edge	steel	10 at Hatch	How fastened to Beams	steel	2	steel	2
Average space...	48	48	Stringer Plate on ends of Main or Middle Deck)	1	1	1	1

AMS, Main, or Middle Deck <u>steel</u>	<u>100' Bulb</u>	<u>10" Bulb</u>	Beams, breadth and thickness ... ..	<u>33</u>	<u>9</u>	<u>10 1/2</u>	<u>9</u>
10" or 12" Ang. Iron, Plate or Tee Bulb, Iron	-	-	Is the Stringer Plate attached to the outside plating?	<u>yes</u>		<u>As required</u>	

AMS. Lower Deck— <i>how except at ends and</i>	40	40	Angle Irons on ditto, No. 2	4x4x9	4x4x9
			Tie Plates, outside Hatchways		

gle or d'ble Ang. Iron, Plate or Tee Bulb Iron)	in 2.813.26	compensated	Diagonal Tie Plates on Beams, No. of pairs		
gle or double Angle Iron on Upper Edge	as fit applied for by deep frame		Flat of Middle Deck* do.	do.	Iron 6
			How fastened to Beams		Iron 6

AMS, Hold, or Orlop—	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	34 1/2	12	34	12
Plate or Tee Bulb Iron					

Is the Stringer Plate attached to the outside plating?	Hold beams	12	24	12
Angle Irons on ditto. No. 4		2		

<b>ELSONS</b> Centre line, single or double plate, <i>51</i>	<i>10</i>	<i>51</i>	<i>10</i>	Stringer or Tie Plates, outside Hatchways	<i>23</i>	<i>4x4x9</i>	<i>4x4x9</i>	plate or
<del>rough</del> box, or Intercoastal, Plates ...				Flat of Lower Deck *	<i>2</i>	<i>4x4x20</i>	<i>4x4x20</i>	

[illegible]

Angle Irons	4	4	4	4	4	Ceiling betwixt Decks, thickness and material	6 x 2 Spruce
Double Angle Iron Side Keelson	-	-	-	-	-	" in hold do. do.	2 1/2 P.P. 2 1/2
Side Intercoastal Plate	4	4	4	4	4	Main pieces of Brdder diameter at head	

do.	Angle Irons	Steel	Steel	3 1/2	3 1/2	1	3 1/2	3 1/2	1 1/2	Main piece of Rudder, diameter at head	9	2 1/2
Attached to outside plating with angle		Steel	Steel	3 1/2	3 1/2	1 1/2	3 1/2	3 1/2	1 1/2	do. at heel	4	4
										Can the Rudder be unshipped		

[illegible]

do. Intercoastal plates riveted to }  
plating for \_\_\_\_\_ length }

Intercoastal plates riveted to	plating for									"	How secured to sides of ship	<i>between double frames</i>
										"	Size of Vertical Angle Irons	<i><math>\frac{1}{2} \times 3\frac{1}{2}</math> and distance apart .30 ins.</i>

**DE STRINGER** Angle Irons ... ..  
across the Keel  
*See Hold Bms. etc.*

FRAMES extend in one length from margin plate to margin plate, Riveted through plates with 1/2 in. Rivets, about 6 apart.

REVERSED ANGLE IRONS on floors and frames extend from middle line to margin plate to margin and to upper deck alternately?

**HEELSONS.** Are the various lengths of Plates and Angles ~~from~~ properly connected? *Yes.* And butts properly shifted? *Yes.*

Edges of *Carboards* and to upper part of Bilge, worked clencher, double riveted; with rivets  $\frac{7}{8}$  in. diameter, averaging  $2\frac{3}{4}$  ins. from centre to centre.

Butts from keel to turn of Bilge, worked square, double riveted; with rivets  $\frac{3}{8}$  in. diameter averaging 3 ins. from centre to centre.

{ Butts of all Strakes at Bilge for entire length, treble riveted, with Butt Straps, 4 thicker than the plates they connect where butted outside straps fitted to both in way of bracing plate, and double straps fitted to strake above.

Edges from Bilge to Main Sheerstrake, worked clencher, double ~~lapped and~~ riveted; with rivets  $\frac{1}{2}$  in. diameter, averaging 32 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets  $\frac{1}{2}$  in. diameter, averaging 37 ins. from cr. to cr.

Edges of Main Sheerstrake, double ~~or single~~ riveted. Upper Sheerstrake, double ~~or single~~ riveted.  
Butts of Main Sheerstrake, <sup>lapped and</sup> treble riveted for <sup>interior</sup> length amidships. Butts of Upper ~~or Spar~~ Sheerstrake, treble riveted <sup>interior</sup> length amidships with double butt strakes in 2 butts.

Butts of Main Stringer Plate, treble riveted for  $\frac{3}{4}$  length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for  $\frac{3}{4}$  length. Breadth of laps of plating in double riveting @ 2.54 Breadth of laps of plating in single riveting  $\frac{1}{2}$  length, and lapped at ends

tt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted Quadruple No. of Breasthooks, 4 Crutches, 4 deep floor.

Manufacturer's name or trade mark, *James "Clive" Coates & Co.; Rev. bars, steel C. of Scotland; Beams, Dringman Long & Co., Ell. B. & Stringers, Landre & Co. & Steel C. of Scot., Decks, Banou & Co. & Decks, m. S. C. & Bell, Clydesdale, Cussett, & Co.*

Child's Signature, *Pauland & half of the* Surveyor's Signature, *James Surpin*  
 Surveyor to Lloyd's Register of British and Foreign Shipping

ROBERT EDMUND TAYLOR & SON, Commercial and General Steam Printers, London, E.C.

15635-0321



Workmanship. Are the butts of plating planed or otherwise fitted? *planed where butted, but mostly lapped*  
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 *all* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantlings  
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 Material  
State also Length and Diameter of Lower Masts and Bowsprit *Schooner rigged as Auxiliary to Steam power.*

*Fore and Main pole masts of steel 111.6 x 24 and 104.8 x 22 respectively.*  
*Constructed with 3 plates in the round 10 to 32 and 3 angles 3 x 3 x 16 & 3 x 3 x 16*  
*doubling plates fitted at the partners, and at the heels, and the plates tested*  
*at the steel works.*

NUMBER & LETTER for EQUIPMENT	SAILS.		CABLES, &c.		Fathoms	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested and Superintendent, also Number of Certificate.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate	W't req'd per Rule.	Machine where Tested and Superintendent, also Number of Certificate.
			Chain		150	2	100.16.0-0	300 x 2	Feb 4 to 29	Bower Anchors (State Machine where Tested, of Certificate, & Name of Superintendent.)	1	38.3.0	34.19.1.14	30	Jan 24
			Fore Sails,		150	2	72.0.0-0	Refuted	J. G. Lewis		2	9.2.22			
			Iron Stream Chain		90	4 1/2 W. 39 5/8		90 x 1 1/2	Mar 19		3	38.0.5	34.11.2.7	30	" 24
			Fore Top Sails,								4	10.0.0			
			or Steel Wire								5	34.0.0	31.12.2.0	32 1/2	Feb 6
			Fore Topmast												
			Stay Sails,												
			Cable												
			Towline, Hemp		100	4 1/2 W. 39 5/8		120 x 12	Mar 19						
			or Steel Wire		20	12 Manila		4 1/2 W.							
			Main Sails,												
			Hawser		90	9		90 x 10							
			Warp		90	9		90 x 2 1/2							
			Main Top Sails, and												
			quality food		4 x 90	6									

Standing and Running Rigging *Wire Hemp* sufficient in size and *good* in quality. She has *two* *Long* Boats and *two other boats*  
The Windlass is *Patent and good* Capstan *good*, and Rudder *good* Pumps *good*

Engine Room Skylights.—How constructed? *of Iron on Comings* How secured in ordinary weather? *Screw bolts and nuts*

What arrangements for deadlights in bad weather? *Solid top with strong small squares of glass, and shutter*

Coal Bunker Openings.—How constructed? *plates & angles, and* How are lids secured? *Watch bars & studs* Height above deck? *9' and 1 1/2'*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *5 freeing ports, 2 Scuppers and*  
*2 Spring pipes forward, and 4 freeing ports 4 Scuppers and 2 Spring pipes aft each side*

Cargo Hatchways.—How formed? *of plates and angles, Comings 36 inches above deck.*

State size Main Hatch, *19.6 x 12.0* Forehatch, *19.6 x 11.0*, *7.6 x 6.0* Quarterhatch, *15.6 x 11.0* and *15.6 x 10.0*

If of extraordinary size, state how framed and secured? *One deep web plate in each of No 1 & 2 hatchways, a shifter*

What arrangement for shifting beams? *beam in each of No 4 and 5, and one strong fore and after in all*

Hatches, If strong and efficient? *yes 3 are solid*

Order for Special Survey No. *221* Date *Jan 24 1888*  
Order for Ordinary Survey No. *214* Date *✓*  
No. *214* in builder's yard.  
State dates of letters respecting this case *Dec. 21. 87; Jan 5, April 5, 88; Feb. 23, Mar. 9, 19, and 26 1889*

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the approved tracings of Midship and Longitudinal sections forwarded on the 6<sup>th</sup> Inst and with the 4 accompanying approved plans in way of Engine & Boiler space; in compliance with the Secretary's letters, dated as above and the Rules in other respects, including the Committee's Circulars on steel have been adhered to. She is a two deck vessel, built on the 30<sup>th</sup> Rule, having a Forecastle 43 feet long, a Bridge 88 feet long, over the Engine and Boilers, on the top of which is fitted a Chart room and the Engine Skylight and a Poop 33 feet long. She has a double bottom constructed on the cellular system 264 feet long, with water capacity for 54 1/2 tons, and an after peak tank, with water capacity for 48 tons, tested as required by the Rules. She is stronger in some parts than required by the Rules. The materials used in her construction, and the workmanship are very good.*

State if one, two, or three decked vessel, *one or two decked*; and the lengths of poop, bridge, fore-castle, *un-raised quarter deck*. (If double bottom, state particulars on separate form)

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

I am of opinion this Vessel should be Classed *+ 100 A 1 Steel 20 lbs 1 Iron 1 Steel 30 lbs Rule.*

The amount of the Entry Fee .....£ *5* : : : is received by me, *190*

Special .....£ *100* : *10* : *0* *17/4/1889*

(to be sent as per margin). Certificate .. *Gratis* :  
(Travelling Expenses, if any, £ *✓* ) :  
Committee's Minute *THURS 18 APRIL 1889*

Character assigned *100 A 1 Steel*  
*+ 20 lbs 1 Iron 1 Steel*  
*30 lbs Rule*

*L A 1889* *THURS* *18 APRIL 1889* *James Curpin*  
Surveyor to Lloyd's Register of British and Foreign Shipping  
It is submitted that this vessel appears eligible to be classed *100 A 1 Steel* as above noted *20 lbs 1 Iron 1 Steel* (30 lbs Rule.)  
All other particulars appended *17/4/1889*