

Sailing Vessel. ~~IRON OR~~ STEEL SAILING SHIP.

(Received at London Office 25/5/93)

No. 54368 Date of completion of Report May 24<sup>th</sup> 1893 Port of London  
Survey held at London Date of First Survey Oct 5<sup>th</sup> 1892 Last Survey May 17<sup>th</sup> 1893

On the Steel Tar Lighter "Coaltar"

Rig Schooner

Master Jos. Fred. Hattwell

TONNAGE under Tonnage Deck 217.59 ONE OR TWO DECKED VESSEL.

Do. of Poop CLASS 100. A. 1

Do. of raised Qr. (Dk. or Break) Half Breadth (moulded) 12.00

Do. of Bridge House Depth from upper part of Keel to top of Upper Deck Beams 13.75

Do. of Houses on Deck Girth of Half Midship Frame (as per Rule) 21.80

Do. of excess of Hatchways 1.89

Do. of Forecastle 1st Number 47.55

Gross Tonnage 219.48 Length 107.0

Less Crew Space 24.88 2nd Number 5087.8

TONNAGE FOR FEES. Proportions—Breadths to Length 4.04

Less Navigation spaces Depths to Length—Upper Deck to top of Keel 8.07

Register Tonnage 194.60 as cut on Beam. Destined Voyage Zelyat. (Plant.) If Surveyed while Building, Afloat, or in Dry Dock Building

Year of Appointment (1) As master in service of (2) As master of this vessel 1893

Built at Blackwall London E.

When built 1893 Launched April 5<sup>th</sup>

By whom built Thames Ironworks &amp; Shipbuilding Co. Ltd.

Owners Bert Boulton &amp; Heywood

Managers (Where necessary to be entered in Reg. Book.)

Residence 64 Cannon Street E.C.

Port belonging to London.

LENGTH on deck as per rule	Feet.	Inches.	BREADTH—Moulded	Feet.	Inches.	DEPTH—Top of Floors to Upper Deck Beams	Feet.	Inches.	No. of Decks with Flat laid	No. of Tiers of Beams
107	0		24	0		12	10		one	one

Dimensions of Ship per Register, Length 107.0 breadth 24.0 depth 12.8 Moulded depth, ft. 13 in. 5 Round up of Beam 6 ins.

## FORGINGS AND CASTINGS.

	Inches in Ship.	Inches per Rule.
KEEL, Bar or Side Plates, depth and thickness	6 x 1 1/2	6 x 1 1/2
STEM, moulding and thickness	6 x 1 1/2	6 x 1 1/2
STERN-POST, do. do.	6 x 1 1/2	6 x 1 1/2
MAIN-PIECE OF RUDDER, diameter at head	3 1/2	3 1/2
" " " " at heel	2	2
RUDDER, how constructed	Forged frame	
Can the Rudder be unshipped afloat?	Yes.	No. plating

## FRAMING.

	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule.	16ths or 20ths per Rule.
FRAME, Angles, 3 x 3, for 1/2 length amids.	3	3	6/16	3	3 1/2
Do. for 1/2 at each end	3	3	6/16	3	3 1/2
Do. in way of Double Bottoms	-	-	-	-	-
Distance of Frames from moulding edge to moulding edge, all fore and aft	21			21	
REVERSED FRAME, Angles	2 1/2	2 1/2	7/16	2 1/2	7/16
FLOORS, depth and thickness of Floor Plate at mid line for 1/2 length amids	13 1/2	6/16		13 1/2	6/16
" thickness at the ends of vessel	7	7/16		7	7/16
" depth at 1/2 the half breadth, as per Rule	-	-	-	-	-
" height extended at the Bilges	-	-	-	-	-
FLOORS & BRACKETS, in Cell Dble Bottoms distance apart	-	-	-	-	-
CENTRE GIRDER, in Dbl. Btm., dpth & thcknss	-	-	-	-	-
" " Angles, Top Bottom	-	-	-	-	-
SIDE GIRDERS, number and thickness	-	-	-	-	-
" " Angles	-	-	-	-	-
MARGIN PLATE, depth (exclusive of flange) and thickness	-	-	-	-	-
" " Angles	-	-	-	-	-
INNER BOTTOM PLATING, br'dth & thckn's of Middle Line Strake	-	-	-	-	-
" " " " Remainder	-	-	-	-	-
BEAMS, Main Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	5	3	6/16	5	3 1/2
" " Angles on Upper Edge	-	-	-	-	-
" " Average space	21			21	
BEAMS, Lower Deck, Plate or Tee Bulb	-	-	-	-	-
" " Angles on Upper Edge	-	-	-	-	-
" " Average space	-	-	-	-	-
BEAMS, Hold, Plate or Tee Bulb	-	-	-	-	-
" " Angles on Upper Edge	-	-	-	-	-
" " Average space	-	-	-	-	-
BEAMS, Poop or Bridge Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	-	-	-	-	-
" " Angles on Upper Edge	-	-	-	-	-
" " Average space	-	-	-	-	-
BEAMS, Forecastle Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	-	-	-	-	-
" " Angles on Upper Edge	-	-	-	-	-
" " Average space	-	-	-	-	-
PILLARS, in 'tween Decks, at Centre line, Size	-	-	-	-	-
" " " " Quarter, Size	-	-	-	-	-
" " " " Spacing	-	-	-	-	-
" " " " In Holds, at Centre line, Size	2 1/2	2 1/2		2 1/2	
" " " " Spacing	-	-	-	-	-
" " " " Quarter, Size	-	-	-	-	-
" " " " Spacing	-	-	-	-	-
WEB-FRAMES, Breadth and thickness	-	-	-	-	-
" " " " Number and Spacing	-	-	-	-	-
Number of Side Stringers, breadth and thickness	-	-	-	-	-
Size of Angles or Tee Bars to Web-Frames	-	-	-	-	-

## KEELSONS AND STRINGERS.

	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule.	16ths or 20ths per Rule.
CENTRE LINE KEELSON, Amidships	26	7/16		26	7/16
" " Through Plate, Interstitial Plate	8	8/16		8	8/16
" " Bulb Plate to Interstitial Keelson	10	7/16		10	7/16
" " Horizontal Plates above floors	3	3 1/2		3	3 1/2
" " Angles for dissipative of Keelson at ends of the plate	-	-	-	-	-
SIDE KEELSON, Angles	-	-	-	-	-
" " Bulb Plate for length	-	-	-	-	-
" " Interstitial Plate for length	-	-	-	-	-
" " Attached to outside Plating with Angle	3	3 1/2		3	3 1/2
BILGE KEELSON, Angles	-	-	-	-	-
" " Bulb Plate for length	-	-	-	-	-
" " Interstitial Plates for len.	-	-	-	-	-
" " Attached to outside Plating with Angle	-	-	-	-	-
BILGE STRINGER, Angles	-	-	-	-	-
" " Bulb Plate for length	-	-	-	-	-
" " Interstitial Plates for len.	-	-	-	-	-
" " Attached to outside Plating with Angle	5	3 1/2		5	3 1/2
SIDE STRINGER, Angles	3 1/2	7/16		3 1/2	7/16
" " Bulb Plate for length	3	3 1/2		3	3 1/2
" " Interstitial Plate for length	-	-	-	-	-
" " Attached to outside Plating with Angle	-	-	-	-	-
Main Deck Stringer Plate, on end of Beams, breadth and thickness	28	6/16		28	6/16
" " Angle on ditto	3 x 3	6/16		3 x 3	6/16
" " Tie Plates fore and aft, outside Hatchways	-	-	-	-	-
" " Diagonal Tie Plates on Bms., No. of Prs.	-	-	-	-	-
" " Flat of Deck*, material and thickness	-	-	-	-	-
" " " " Steel for whole length	6/16			6/16	
" " How fastened to Beams	-	-	-	-	-
Lower Deck Stringer Plate, on end of Beams, breadth and thickness	-	-	-	-	-
Is the Stringer Plate attached to the Outside Plating?	-	-	-	-	-
" " Angles on ditto, No.	-	-	-	-	-
" " Tie Plates, outside Hatchways	-	-	-	-	-
" " Diagonal Tie Plates on Bms., No. of prs.	-	-	-	-	-
" " Flat of Deck, material and thickness	-	-	-	-	-
" " How fastened to Beams	-	-	-	-	-
Hold Stringer Plate, on end of Beams	-	-	-	-	-
Is the Stringer Plate attached to the Outside Plating?	-	-	-	-	-
" " Angles on ditto, No.	-	-	-	-	-
" " Tie Plate outside Hatchways	-	-	-	-	-
" " Flat of Deck, material and thickness	-	-	-	-	-
Poop or Bridge Deck Stringer Plate, breadth and thickness	-	-	-	-	-
" " " " Angle	-	-	-	-	-
" " Tie Plates on Beams	-	-	-	-	-
" " Flat of Deck, material and thickness	-	-	-	-	-
Forecastle Deck Stringer Plate, b'dth & thckn's	-	-	-	-	-
" " " " Angle	-	-	-	-	-
" " Tie Plates on Beams	-	-	-	-	-
" " Flat of Deck, material and thickness	-	-	-	-	-
PLATING.	-	-	-	-	-
FLAT PLATE KEEL, breadth and thickness	30	7/16		30	7/16
PLATES in Garboard Strakes, br'dth & thckn's	-	-	-	-	-
" " from Garboard to lower part of Bilges	6/16	6/16		6/16	6/16
" " State Thickness of Plating in way of Double Bottom	-	-	-	-	-
" " Bilges, number of Strakes, and thickness	6/16	6/16		6/16	6/16
" " Of doubling at Bilge, or increased thickness, and length applied	-	-	-	-	-
" " from up. part of Bilge to lr. edge of Strake	6/16	6/16		6/16	6/16
" " Strake in way of Lower Deck Beams	-	-	-	-	-
" " Sheerstrake, breadth and thickness	31	7/16		31	7/16
" " Poop or Bridge Sides	-	-	-	-	-
" " Forecastle Sides	-	-	-	-	-
Lengths of Plating	-	-	-	-	-



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BULKHEADS.		No. in Vessel	Size	Reqd. by Rule	
Thickness.	Angles.	Spacing.	Height up.	Sngl or Dbl. Frames.	
Ceiling betwixt Decks, thickness and material					
in hold do. do. 2" Pine	Collision	5/20	Vrtcl. 3x3x1/2 30	To upper Dk	Double
	W. T. BULKHEADS..		Hrzncl. 3x3x1/2 48		
Number of Breasthooks	Tank bulkhead	6/20	Vrtcl. 6x3x1/2 30	To upper Dk	Double
Crutches	middle line	5/20	Vrtcl. 3x3x1/2 21	To upper Dk	Double
	Are the outside Plates doubled two spaces of Frames in length?				

The FRAMES extend in one length from Keel to Gunwale Riveted through Plates with 3/8 in. Rivets, about 4 1/2 apart.

The REVERSED ANGLES on floors and frames extend from middle line to side stringer and to Gunwale alternately.

**RIVETING OF EDGES AND BUTTS OF SHELL PLATING AND BUTTS OF STRINGER PLATES, TIE PLATES, KEELSONS, &c.**

Carboard, double riveted to Bar Keel or Flat Plate, with rivets 1 in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, treble or double riveted; treble for whole lgth.; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

Butts from Bilge to turn of Bilge, worked carvel, treble riveted for length; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

Butts of one Strakes at Bilge for 3/5 length, treble riveted with Butt Straps 1/2 thicker than the plates they connect.

Edges from Bilge to Sheerstrake, worked clench, double or single riveted; with rivets 3/8 in. diameter, averaging 2 1/2 ins. from centre to centre.

Butts from Bilge to Sheerstrake, worked carvel, treble or double riveted; treble for whole lgth.; with rivets 3/8 in. dia., averaging 2 1/2 ins. from cr. to cr.

Edges of Sheerstrake, double riveted.

Butts of Main Stringer Plate, treble riveted for whole length amidships. Single or Double Straps to Stringer Plate, for whole length amidships.

Butts of Inner Bottom Plating, double riveted for whole length amidships. Butts of Centre Girder, double riveted.

Breadth of edge laps of Shell Plating in double riveting 4 3/4. Breadth of edge laps of Shell Plating in single riveting 2 3/4.

Butt Straps of Shell Plating, breadth and thickness 10 to 8 and 3/4 to 5/8. Butts, if lapped, breadth of Laps 4 3/4.

Butt Straps of Keelsons, Stringer and Tie Plates, treble or double riveted?

Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. Palmer's Shipbuilding & Iron Co. Ltd.

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

Is the riveted work properly closed? Yes

Are the liners between the frames 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

Are the butts of Plating, Stringers, &c., properly shifted and strapped or lapped? Yes

MASTS AND SPARS.						Number of Plates in Round.	ANGLES.		RIVETING.	
DIAMETER AND THICKNESS.							Number.	Size.	Seams.	Butts.
	Material.	Total length.	At Partners.	Heel.	Hounds.	Head.				
LOWER MASTS.....	Fore .... <i>P. Pine</i>	64.9	14	13		10				
	Main .... "	64.5	14	13		10				
	Mizen ....									
	Jigger ....									
BOWSPRIT .....		22.0		10½	12	11½				
	Fore .... <i>Pine</i>	31.0		10		3½				
TOPMASTS .....	Main .... "	32.0		10		3½				
	Mizen ....									
	Jigger ....									
YARDS.....	Fore .... "	54.0	At Centre	11	At Ends	5				
	Main ....		"		"					
	Crossjack ..		"		"					
	Jigger ....		"		"					
FORE TOPMAST YARDS	Lower ....	42.0	"	8	"	4				
	<del>Upper</del> ....	30.0	"	7	"	3½				
MAIN .....	Lower ....		"		"					
	Upper ....		"		"					
MIZEN .....	Lower ....		"		"					
	Upper ....		"		"					
JIGGER.....	Lower ....		"		"					
	Upper ....		"		"					

Remainder of Spars Pine

Rigging. Material and Size, Shrouds Steel wire 2 1/2 Stays Steel wire 1 3/4 Quality Good

Sails, One Suit of Sails, and the following Spare Sails

EQUIPMENT No. 5087 LETTER f		ANCHORS.		Description of Anchor.	Makers.	Where and when tested and Superintendent.
Number of Certificate.	WEIGHT, EX. STOCK	WEIGHT OF STOCK.	TEST, PER CERTIFICATE.			
	Cwts. qrs. lbs.	Cwts. qrs. lbs.	Tons. cwt. qrs. lbs.			
15754 1st Bower....	7 1 2	1 3 7	9 11 2 7	7 1	Ordinary	J. Green Tipton Nov. 12 <sup>th</sup> 1922
25755 2nd "....	7 1 1	1 3 7	9 11 2 7	7 1		"
3rd "....						
4th "....						
Collective weight	14 2 3			14 2		
15753 Stream.....	2 1 0	2 7	4 15	2 1		
Kedge.....	1			1		
2nd Kedge..						

CHAIN CABLES.										HAWSERS AND WARPS			
Number of Certificate.	Fathoms	Size.	Test per Certificate. Tons.	Weight of Chain Cable.	Fathoms & Size. Per Rule.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Fathoms	Size.	Fathoms & Size. Per Rule.	
13451	90	1"	27	45.2.5	165.1"	Steel Link	J. Green	Tipton Nov. 23 <sup>rd</sup> 1922	TOWLINE	90	1"	90.1"	
13452	75	1"	27	38.3.20			Old Hill	"	"	Hawser	75	1"	75.1"
Iron Stream Chain (or Steel Wire ...)	45	9/16	8 1/4	7.3.17	45 9/16	"	W. Bradley	" Dec. 7 <sup>th</sup> 1922					
2 Towlines if steel wire	75	2 3/4	Steel wire										

Boats Two 16' 0" x 14' 0"

Pumps, Number 3 Two 4" & one 3" Diameter of Barrel and Tail Pipe 4" x 2"

Windlass Emerson Capstan None

Number of Scuppers, and number and dimensions of Freeing Ports 3 each side - 3 freeing ports each side 19" x 15"

Cargo Hatchways. - How formed? As per rule Hatches, If strong and efficient? Yes, solid 2 1/2"

State size No. 1 Hatch (Forward) 7' 0" x 6' 0" No. 2 Hatch 10' 6" x 7' 6" No. 3 Hatch

Number of Web Plates, Shifting Beams, and Fore and Afters to each hatch One

Bulwarks, Height above deck and description 3' 0" Main Rail, material and size Steel 6" x 3" Topgallant Rail

The above is a correct description.

Builder's Signature (here only.) Prof. Mackinnon Surveyor's Signature Robert T. Johnson

The Thames Iron Works, Blackwall Surveyor to Lloyd's Register of British and Foreign Shipping.



54368 Low

Order for Special Survey No. 1864  
Date 26/9/92  
Order for Ordinary Survey No.  
Date  
No. H. 96 in builder's yard  
State dates and initials of letters respecting this case  
General Remarks (State quality of workmanship, &c.)

1st. On the several parts of the frame, when in place, and before the plating was wrought  
2nd. On the plating during the process of riveting  
3rd. When the beams were in and fastened, and before the decks were laid  
4th. When the ship was complete, and before the plating was finally coated or cemented  
5th. After the ship was launched and equipped

Oct. 5. 10. 11. 17. Nov. 2. 8. 19. 26. 30. Dec. 8. 12. 21. 22. (1892)  
Jan. 2. 9. 13. 18. 20. 21. 23. 25. 26. 28. 31. (1893)  
Feb. 2. 4. 9. 15. 17. 21. March 2. 7. 11. 15. 18. 23. 28.  
April 1. 12. 21. 26.  
May 2. 5. 12. 17.

Total No. of Visits 45.

This vessel has been built under special survey in accordance with the Society's Rules for steel vessels and the approved drawings, for the purpose of carrying Tar in bulk.  
The workmanship and materials are of good quality, the steel tested as required by the Rules, and eligible in my opinion to be classed, -  
100 A. 1. "Steel"; - Carrying Tar in bulk. -

PARTICULARS FOR RECORD IN THE REGISTER BOOK.

Length of Poop ft., R.Q.D. or Break ft., Bridge Dk. ft., Forecastle ft. (in feet and tenths).  
No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) 1 DE. Steel, 1 BR. B.  
Official No. 101995 Signal Letters

PARTICULARS OF WATER BALLAST.

Double bottom, aft, length and water capacity in tons Double bottom, amidships, length and water capacity in tons  
Double bottom, forward, length and water capacity in tons  
Double bottom, constructed on the cellular system, length and water capacity in tons  
Fore peak tank, water capacity in tons After peak tank, water capacity in tons  
Midship, deep tank, length 36.9 and water capacity in tons 300 Other tanks, if fitted, length and water capacity in tons  
The above have been tested as required by the Rules. Secretary's letter Sep. 22. 1892.  
(If necessary, furnish further information by sketch.) See approved drawings.  
How are the surfaces preserved from oxidation? Inside Paint & Cement Outside Paint.

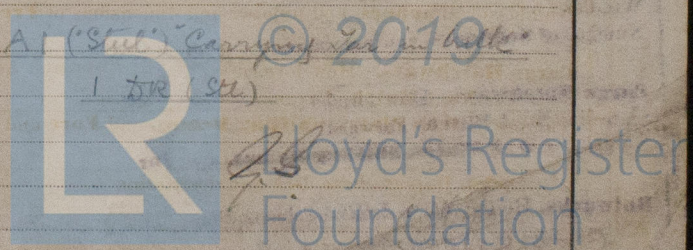
FREEBOARD assigned by the Committee, as per Secretary's Letter, 2 ft. 2 ins. In Salt Water  
dated April 28. 1893 1 ft. 11 ins. In Fresh Water  
State if marked on Vessel's sides in accordance with Notice No. 572 Yes 2 ft. 5 ins. In Winter, in North Atlantic  
The amount of Entry Fee £ 2 : : : is received by me, 12/6/18  
Special... £ 9 : 15 : :  
Certificate\* £ : : :  
Travelling Expenses, if any £ : : :  
I am of opinion this Vessel should be Classed 100 A. 1. "Steel" Carrying Tar in bulk.

Robert T. Johnson  
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute  
Character assigned 100 A. 1 Steel  
2A REP Carrying Tar in bulk  
100 A. 1 (Steel) Carrying Tar in bulk  
1 DE (Steel)

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

This Vessel appears to have been built in accordance with the Rules and the approved plans, and it is submitted that she is eligible to be classed -  
100 A. 1. "Steel" Carrying Tar in bulk as recommended.



LON699-0024 3/2