

# 1 or 2 Decks. <sup>30</sup> IRON OR STEEL STEAMER.

8300

Received at London Office.

State of Report is also sent on the Machinery of the Vessel

TUE 3 FEB 1891

Date of completion of Report 31<sup>st</sup> January 1891 Port of West Hartlepool

No. 8300 Survey held at West Hartlepool Date, First Survey 3<sup>rd</sup> September 1891 Last Survey 26<sup>th</sup> January 1891

On the Steel Screw Steamer "Heighington" Rig Schooner (2 masts)

TONNAGE under Tonnage Deck...}	2211.45
Do. of Poop	72.32
Do. of Raised Or. } Dk. or Break...}	173.95
Do. of Bridge House (Chart)	307.05
Do. of Houses on Deck	5.14
Do. of excess of Hatchways	23.61
Do. of Forecastle	6.24
No. above Crown of Engine Room ...}	
Loss Tonnage	2800.00
Crew Space	59.71
Do. above Crown of Engine Room ...}	16.96
TONNAGE FOR FEES ..	2440.35
Less Engine Room	896.05
Less Navigation Spaces	
Register Tonnage as cut on Beam ...}	1524.30

ONE OR TWO DECKED VESSEL.

CLASS 100 A1.

FEET.

Half Breadth (moulded) .....	20.14
Depth from upper part of Keel to top of Main Deck Bms. ....	24.54
Girth of Half Midship Frame (as per Rule) .....	39.45
1st Number .....	94.46
Length .....	312.33
2nd Number .....	263.49.4
Proportions—Breadths to Length .....	7.45
Depths to Length—Main Deck to top of Keel.....	12.42
Destined Voyage	American

Master	Wilson
Year of appointment	(1) As master in service of owner of present vessel:—18 (2) As master of this vessel:—18
Built at	West Hartlepool
When built	1891
Launched	26 <sup>th</sup> Nov 1890
By whom built	W. Gray & Co. (Lim)
Owners	Hudson Shipping Co. (Lim)
Managers	(Where necessary to be entered in Reg. Book.)
Residence	West Hartlepool
Port belonging to	West Hartlepool
Surveyed while Building, Afloat, or in Dry Dock	

LENGTH on Deck as per Rule .....	Feet. 312	Inches. 4	BREADTH—Moulded.....	Feet. 40	Inches. 3 3/4	DEPTH—Top of Floors to Main Deck Beams. with 10" crop	Feet. 22	Inches. 5 1/2	Power of Engines	Horse. 220	No. of Decks with Flat laid	One	No. of Tiers of Beams	One web frames
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Dimensions of Ship per Register, Length, 314.0 breadth, 40.55 depth, 21.95. Moulded Depth, ft. 23 ins. 5 1/2. Round of Beam 1 inches.

## FORGINGS AND CASTINGS.

	Inches in Ship.	Inches per Rule. Or as Approved.
KEEL, Bar or Side Plates depth and thickness	10 x 2 3/4	10 x 2 3/4
STEM, moulding and thickness .....	10 x 2 3/4	10 x 2 3/4
STERN-POST for Rudder do. } Castings	10 x 6	10 x 6
for Propeller .....	10 x 6	10 x 6
MAIN PIECE of Rudder, diameter at head... do. at heel .....	9	8
RUDDER, how constructed in the Rudder be unshipped afloat?	Cast steel frame and plates	

## FRAMING.

	Inches in Ship.	Inches per Rule. Or as Approved.
NAME, Angles, or Bars, for 1/2 length amidships	5 3/2	8 5 3/2
do. for 1/2 at each end .....	5 3/2	7 5 3/2
do. in way of Double Bottoms .....	3 1/2	3 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft .....	24	24
REVERSED FRAME, Angles .....	3 1/2	3 1/2
FRAMES, depth and thickness of Floor Plate } at mid-line for 1/2 length amidships ...}	25	10 25 10
do. in way of Engines and Boilers .....	Engine 11 Boiler 12	11 12
do. thickness at the ends of vessel .....	8	8
do. depth at 1/2 the half breadth, as per Rule ..	13	12
do. height extended at the Bilges .....	50	50
FLOORS & BRACKETS, in Cell Dble Bottoms		
Distance apart .....		
CENTRE GIRDER, in Double Bottom, depth and thickness .....	20 1/2	14 20 14
Angles, Top 4 x 4 x 9 Bottom	6 1/2	4 9 4
SIDE GIRDERS, number and thickness .....	Four	7 Four 7
Angles .....	3 1/2	3 1/2
MARGIN PLATE, depth (exclusive of flange) and thickness .....	26	8 26 8
Angles .....	3 1/2	3 1/2
LOWER BOTTOM PLATING, breadth and thickness of Middle Line Strake } thickness in Engine and Boiler space		
do. Remainder in Holds.....		
FRAMES, Main and Raised Quarter Deck, } Single Angle, Bulb Angle, Plate or Tee Barb }	4 1/2	3 9 4 1/2 3 9
Angles on Upper Edge .....		
Average space .....	24	24
FRAMES, Lower Deck, Single Angle, Bulb Angle, Plate or Tee Barb } Angle, Plate or Tee Bulb	11	11 11 11
Angles on Upper Edge .....	3 1/2	3 1/2
Average space .....	24	24
FRAMES, Hold, Plate or Tee Bulb } Angle, Plate or Tee Bulb	15	10 15 10
Angles on Upper Edges .....	5	4 9 5 4 9
Average space .....	24	24
FRAMES, Poop Deck, Angle, Bulb Angle, Plate or Tee Barb } Angle, Bulb Angle, Plate or Tee Barb	4 1/2	3 8 4 1/2 3 8
Angles on Upper Edge .....		
Average space .....	48	48
FRAMES, Bridge Deck, Angle, Bulb Angle, Plate or Tee Barb } Angle, Bulb Angle, Plate or Tee Barb	5 1/2	3 7 5 1/2 3 7
Angles on Upper Edge .....		
Average Space .....	24	24
FRAMES, Forecastle Deck, Angle, Bulb Angle, Plate or Tee Barb } Angle, Bulb Angle, Plate or Tee Barb	5 1/2	3 7 5 1/2 3 7
Angles on Upper Edge .....		
Average space .....	24	24
PILLARS, In 'tween Decks, Size and Spacing	2 3/4	48 2 3/4 48
do. Hold	4 and 4 1/2	48 4 1/2 48
WEB FRAMES, In Fore Body, No. and Spacing	8	8 18 8 18
do. Brdth. & Thickness	18	18 18 18
No. of Side Stringers	Three	Three
WEB FRAMES, In After Body, No. and Spacing	9	9 18 9 18
do. Brdth. & Thickness	18	18 18 18
No. of Side Stringers	Two	Two
do. Size of Angles or Tee Bars to Web Frames	3 1/2	3 1/2 8 3 1/2 3 1/2 8
BRACKET PLATES to Stringers between Web Frames, Depth and Thickness .....	18	8 18 8

## KEELSONS AND STRINGERS.

	Inches in Ship.	Inches in Ship.	Inches 20ths per Rule Or as Approved.	Inches 20ths per Rule Or as Approved.
CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercostal Plate	20	14	20	14
do. Rider Plate .....	14	14	15 1/2	14
do. Bulb Plate to Intercostal Keelson .....				
do. Horizontal Plates on Floors .....				
do. Angles .....	6 1/2	4	9 6 1/2	4 9
SIDE KEELSON, Angles .....	6 1/2	4	9 6 1/2	4 9
do. Bulb or Plate above floors for length	10	10	10	10
do. Intercostal Plate for length			9	9
do. Attached to outside plating with Angle..	3 1/2	3 1/2	8 3 1/2	3 1/2 8
BILGE KEELSON, Angles .....	6 1/2	4	9 6 1/2	4 9
do. Bulb or Plate above floors for length	10	10	10	10
do. Intercostal Plate for length			9	9
do. Attached to outside plating with Angle..	3 1/2	3 1/2	8 3 1/2	3 1/2 8
BILGE STRINGER Angles .....				
do. Bulb Plate for length				
do. Intercostal Plate for length				
do. Attached to outside plating with Angle				
SIDE STRINGER Angles .....				
do. Bulb or Intercostal Plate for length				
Main and Raised Quarter Deck Stringer Plate, on ends of Beams, breadth & thickness	52	12	52	12
do. Angle on ditto (In. Br. 47.4.9) ..	4 1/2 x 4 1/2	10	4 1/2 x 4 1/2	10
do. Tie Plates fore & aft, outside Hatchways				
do. Diagonal Tie Plates on Bms., No. of Pairs				
do. Flat of Dk* Iron or Steel for length				
do. Wood Material and thickness				
do. How fastened to Beams .....				
Lower Deck Stringer Plate, on ends of Beams, breadth and thickness .....	41	9	41	9
do. Angles on ditto, No. Iron	4 x 4	9	4 x 4	9
do. Tie Plates, outside Hatchways .....	4 x 4	9	4 x 4	9
do. Flat of Deck* Material and thickness				
do. How fastened to Beams .....				
Hold Stringer Plate, on ends of Beams .....	41	9	41	9
do. Angles on ditto, No. Iron	4 x 4	9	4 x 4	9
Poop Deck Stringer Plate, breadth & thickness	32	7	32	7
do. Angle on ditto .....	3 x 3	7	3 x 3	7
do. Tie Plates .....	12	7	12	7
do. Flat of Deck, Material and thickness				
Bridge Deck Stringer Plate, brdth & thickness	43 1/2	11	43 1/2	11
do. Angle on ditto .....				
do. Tie Plates .....				
do. Flat of Deck, Material and thickness .....				
Forecastle Deck Stringer Plate, brdth & thickness				
do. Angle on ditto .....	3 x 3	7 1/2	3 x 3	7 1/2
do. Tie Plates .....				
do. Flat of Deck, Material and thickness .....				

## PLATING.

	Inches in Ship.	Inches 20ths in Ship.	Inches per Rule Or as Approved.	Inches 20ths per Rule. Or as Approved.
FLAT PLATE KEEL, breadth and thickness ..				
do. d'bling or incr'd thickness, & length appl.				
PLATES in Garboard Strakes, brd'th & thickness	36	12	36	12
do. From Garboard to lower part of Bilges ..	11 x 12	10 x 11	11 x 12	10 x 11
do. Bilges, number of Strakes and thickness ..	3	11 9 12		11 7 12
do. Of doubling at Bilge, or increased thickness, and length applied				
do. from up. part of Bilge to lr. edge of Sh'rstrake	11 x 12		11 x 12	
do. The inside strake below sheer strake & the strake above sheer increased 1/2				
do. Sheerstrake, breadth and thickness .....	42	15	42	15
do. Of d'bling at Sh'stk. & lng. applied				
do. Poop Sides .....	7		7	
do. Raised Quarter Deck Sides .....	11		11	
do. Bridge Sides .....	10 and then 11		10 and 11	
do. Forecastle Sides .....	7		7	
Lengths of Plating				

State clearly where plating is of alternate thicknesses—distinguishing from diminished thickness at end of vessel.

HPL 300-100-301

**BULKHEADS.** No. in Vessel *Five* No. Reqd. by Rule *Five*

Ceiling betwixt Decks, thickness and material *Plate 2 1/2*  
 " in hold do. do. *1 1/2*

Number of Breasthooks *Eight*  
 " Crutches *Keel + deck floor*

Are the outside Plates doubled two spaces of Frames in length? *yes*  
 Riveted through Plates with *3/8* in. Rivets, about *7* apart

The **FRAMES** extend in one length from *Keel* to *Stem*  
 The **REVERSED ANGLE** on floors and frames extend from *Centre to keelsons and the stringer next below alternately.*

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

**Garboard,** double riveted to Bar Keel or Flat Plate Keel, with rivets *1 1/2* in. diameter, averaging *5 5/8* 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, treble or double riveted; treble for *3/4* length; with rivets *7/8* in. dia., averaging *3 1/2* ins. from cr. to cr. overlapped for *whole* length, treble riveted for *whole* length; with rivets *7/8* in. dia., averaging *3 1/2* ins. from cr. to cr. thicker than the plates they connect. C.E.S.S. J. *whole overlapped*  
**Butts of all Strakes at Bilge** for *3/4* length, treble riveted with Butt Straps *4 1/2* in. diameter, averaging *3 1/2* ins. from centre to centre.  
**Butts from Bilge to Sheerstrake,** worked clencher, double or single riveted; with rivets *7/8* in. dia., averaging *3 1/2* ins. from cr. to cr.  
**Butts from Bilge to Sheerstrake,** worked carvel, treble or double riveted; treble for *3/4* length; with rivets *7/8* in. dia., averaging *3 1/2* ins. from cr. to cr. overlapped for *whole* length, treble riveted for *whole* length; with rivets *7/8* in. dia., averaging *3 1/2* ins. from cr. to cr.  
**Edges of Sheerstrake,** double or single riveted. **Butts of Sheerstrake,** treble riveted for *3/4* length amidships. *Overlapped under Bridge*  
**Butts of Main Stringer Plate,** treble riveted for *3/4* length amidships. **Single or Double Butt Straps to Stringer Plate** for *whole* length.  
**Butts of Inner Bottom Plating** *Single* riveted for *whole* length. **Butts of Centre Girder** *Double* riveted.  
**Breadth of edge laps of Shell Plating** in double riveting *5 1/2 x 6* Breadth of edge laps of Shell Plating in single riveting *9*  
**Butt Straps of Shell Plating** breadth and thickness *1 1/2 x 19, 14, 15, 16, 19 1/2* **Butts, if lapped, breadth of laps** *9*  
**Butt Straps of Keelsons, Stringer and Tie Plates,** treble or double riveted? *Double and double*  
 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.? *Consolidated West-Scotland 3rd. Co., Darnley, Long & Co., Dumbarton, Steel Co. of Scotland and Colvilles. All Siemens Martin process.*

**Workmanship.** Are the butts of plating planed or otherwise fitted? *Planed*  
 Is the riveted work properly closed? *yes* Do the holes for riveting plate to frames, butt straps, or plate are the liners between the frames and plates solid single pieces? *yes* Are the rivet holes well and sufficiently countersunk in the plate and punched 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? *A few through butts.*  
 Are the butts of Plating, Stringers, &c., properly shifted and strapped? *yes*

**MASTS, SPARS, &c.**

	Material	Total Length	DIAMETER AND THICKNESS.			No. of Plates in round.	ANGLES.		RIVETING.	
			At Partners.	Heel.	Hoards.		Head.	Number.	Size.	Seams.
LOWER MASTS...										
Fore .....	Iron	76.6	22	17	16	16			Double	3/4 overlapped
Main .....	Iron	69.11	20	15	16	13 3/4			Double	3/4 overlapped
Mizen .....										

Bowsprit  
 Topmasts, Yards and Remainder of Spars *Wood, fore topmast 39 + 13. Main topmast 39 + 12. Stays Iron Wire*  
 Rigging, Material and Size, Shrouds *Iron Wire 3/2*  
 Sails. *One complete* Suit of Sails, and the following spare sails

**EQUIPMENT No. 29360 LETTER 7. ANCHORS.**

Number of Certificate.	Description of Anchor.	Makers.	Where and when tested and Superintendent.	WEIGHT, EX. STOCK.			TEST, PER CERTIFICATE.			WEIGHT REQ. BY RULE.			
				Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.
12021	1st Bower			34	1	0	6	2	23	31	16	1	0
12022	2nd "			34	0	0	6	2	23	31	12	2	0
12023	3rd "			29	0	14	6	1	0	27	19	1	14
	Collective weight			97	1	14							
2959	Stream			11	0	14	3	0	14	13	0	0	0
2956	Kedge			5	1	6	1	1	14	7	14	0	7
2966	2nd Kedge			2	2	0	3	22	5	0	0	0	0

**CHAIN CABLES.**

Number of Certificate.	Fathoms.	Size.	Test per Certificate. Tons.	Weight of Chain Cable Per Rule.	Fathoms & Size. Per Rule.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.			Fathoms.	Size.	Fathoms & Size. Per Rule.
									Towline.	Uawser.	Manilla.			
11608	135 1/2	1 3/4	88 1/2	225-2-9	270 + 1 3/4	Ated Sink	H. Hingley & Co.	L.P.H. Sipton 7th Decr 1890	Towline	Steel	90	3 1/2	90 + 3 1/2	
11609	135	1 3/4	63 1/2	230-0-4	270 + 1 3/4	Sink	H. Hingley & Co.	7th Decr 1890	Uawser	Steel	90	2 3/4	90 + 2 3/4	
11623			34 1/2	51-0-1	75 + 1 1/2	Ated Sink	H. Hingley & Co.	2. R. Saitt.	Manilla	Steel	90	6 1/2	90 + 6 1/2	
Iron Strain Chain or Steel Wire	75	1 1/2	22 3/4	51-0-1	75 + 1 1/2	Ated Sink	H. Hingley & Co.		Uawser	Steel	90	6	90 + 6	
Towline-if-tee wire	100	4	35		100 + 4				Uawser	Steel	90	5 1/2	90 + 5 1/2	

**Boats** *Two Life Boats and two others*  
**Pumps, Number** *Hand pumps 7* Diameter of Barrel and Tail Pipe *5* Barrel, *2 1/4* Tail pipe  
 The Windlass is *Iron Wood* Capstan *✓*  
**Engine Room Skylights.**—How constructed? *Plating and Angles*  
 What arrangements for deadlights in bad weather? *Strong steel shutters and bullseyes*  
**Coal Bunker Openings.**—How constructed? *Plating and Angles* How are lids secured? *Patented down* Height above deck? *15*  
 Number of Scuppers, and number and dimensions of Freeing Ports, &c. *On each side Forward, 2 scuppers and 2 freeing ports 34 x 22. Aft, 4 scuppers, 4 freeing ports 24 x 11.*  
**Cargo Hatchways.**—How formed? *Plating and Angles* Hatches, if strong and efficient? *yes, 3 solid*  
 State size No. 1 Hatch (Forward) *15-10 + 13-7* No. 2 Hatch *22-1 + 14-1* No. 3 Hatch *23-10 + 14-2* No. 4 Hatch *23-9 + 14-1*  
 Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch *One web plate and three fore and afters to No. 1 Hatch.*  
 Sweeps web plates and three fore and afters to No. 2, 3 and 4 Hatches  
 Main Rail, material and size *Iron 6 x 3 7/16* Bull angle  
 Bulwarks, height above deck and description *5-0, Iron 5 1/2.*

The above is a correct description.  
 Builder's Signature, (here only) *James Gray & Co. Limited* Director  
 Surveyor's Signature, *Allison B. Wilson* Surveyor to Lloyd's Register of British and Foreign Shipping.

Order for Special Survey No 1456  
 Date *9th Aug 1890*  
 Order for Ordinary Survey No. *0*  
 Date *✓*  
 No. *405* in builder's yard

Dates of Surveys held while building as per Section 18.  
 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

State dates and initials of letters respecting this case *14th, 18th + 22nd July (M.), 11th Sept (P) 1890.*

General Remarks (State quality of workmanship, &c.) *This vessel which is a sister ship to the S.S. "Guernsey" by the same Builders has been built in accordance with the Rules and the plans approved by the Committee. The whole of the material used in the hull is of good malleable quality, and the workmanship has been well executed throughout.*

Build-Under Special Survey.  
 Date of first Survey *2nd Sept 1890*  
 Last *2nd Jan 1891* Total No. of Visits *49*

**PARTICULARS FOR RECORD in the REGISTER BOOK.**—Length of Poop *25.50* ft., R.Q.D. or Break *102.0* ft., Bridge Dk. *115.0* ft., F'castle *35.2* ft. (in feet and tenths) where the Poop is on top of the R.Q.D., or when the Poop or R.Q.D. is joined to the B.D., this should be distinctly stated *The Raised Quarter Deck is connected to the Bridge. There is a short sunk poop*  
 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) *125 (Iron) + Wood frames*  
 Official No. *98502*; Signal Letters *MOBK*

**PARTICULARS OF WATER BALLAST.**  
 Double bottom, aft, length *106 1/2* ft. and water capacity in tons *257 1/2*. Double bottom, forward, length *120 1/2* ft. and water capacity in tons *304 1/2*  
 Double bottom, under engines and boilers, length *✓* and water capacity in tons *✓* If under Engines only, or Boilers only, state which and water capacity in tons  
 Double bottom, constructed on the cellular system, length *✓*  
 Fore peak tank, water capacity in tons *✓* After peak tank, water capacity in tons *✓*  
 Midship deep tank, length *✓* and water capacity in tons *✓* Other tanks, if fitted, length *✓* and water capacity in tons *✓*  
 The above have *now* been tested as required by the Rules.  
 (If necessary, furnish further information by sketch.)  
 How are the surfaces preserved from oxidation? Inside *Portland Cement and paint.* Outside *Paint.*

**FREEBOARD** assigned by the Committee, as per Secretary's Letter, dated *14th July 1890*  
 In Summer *2 ft. 5 ins.*  
 In Winter *2 ft. 9 ins.*  
 For Winter in North Atlantic *3 ft. 1 1/2 ins.*  
 Fresh Water above the centre of disc *5 ins.*  
 To top of Wood, Iron or Steel Upper Deck. (Atalony Deck *1 1/2* above Jam Deck at side)

State if marked on Vessel's sides in accordance with Notice No. 572 *yes*  
 and subsequent instructions.  
 The amount of Entry Fee, £ *5*; is received by me, *W.H.* *2-2-1891*  
 Special £ *93*; 10  
 Certificate £ *Grates*  
 Travelling Expenses, if any £ *✓*

I am of opinion this Vessel should be Classed *100 A. I. STEEL.*  
 Allison B. Wilson, Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute  
 Character assigned *100 A I Steel*  
*L. A. C. S. 11/91*  
*L. A. C. S.*  
 Well ok  
 Write Owner.  
 see letter from Owner attached, dated 9/2/91

HPL 3614-0023 (2/2)