IRON SHIP.

Rec'd 9th JAN 1883

No. 60865 Survey held at Govan Date, First Survey 31st Jan 1882 Last Survey 2nd April 1883

On the S.S. "Hawarden Castle" 2 masts

TONNAGE under Tonnage Deck	3884.97
Ditto of Third, ~~Spar or Awning~~ Deck	1127.35
~~Ditto of Poop, or Raised Qr. Dk.~~	4012.32
Ditto of Houses on Deck	185.34
Ditto of Forecastle	43.17
Gross Tonnage	4240.83
Less Crew Space	162.21
	4078.62
Less Engine Room	1357.87
Register Tonnage as cut on Beam	2721.55

~~ONE, OR TWO DECKED~~, **THREE DECKED VESSEL**, ~~SPAR, OR AWNING DECKED VESSEL.~~

	Feet.
Half Breadth (*moulded*)	24.0
Depth *from upper part of Keel to top of Upper Deck Beams*	34.0
Girth *of Half Midship Frame (as per Rule)*	51.6
1st Number	109.6
1st Number, *if a* **3-Decked Vessel** .. *deduct 7 feet*	7.0
	102.6
Length	378
2nd Number	38782
Proportions— *Breadths to Length*	7.8
Depths to Length—Upper Deck to Keel	11.1
Main Deck ditto	14.4

Master M. P. Webster.
Built at Govan
When built 1882-83 *Launched* 11 Jan/83
By whom built J. Elder & Co
Owners Donald Currie & Co
Residence Fenchurch St. London.
Port belonging to London
Destined Voyage London.
If Surveyed while Building, Afloat, or in Dry Dock.
While Building & afloat.

Official Number

LENGTH on deck as per Rule ... Feet. 378 Inches. -
BREADTH— Moulded ... Feet. 48 Inches. -
DEPTH top of Floors to Upper Deck Beams ... Feet. 31 Inches. 6½
Do. do. Main Deck Beams ... Feet. 23 Inches. 8½
Power of Engines ... Horse. 600
N°. of Decks with flat laid 3
N°. of Tiers of Beams 3

Dimensions of Ship per Register, length, 380.6 breadth, ~~48.25~~ depth, ~~23.6~~ 31.45

~~moulded depth 32'-10"~~

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	11 × 3¼	11 × 3¼
STEM, moulding and thickness	11 × 3¼	— " —
STERN-POST for Rudder do. do.	12 × 7½	11 × 6½
" " for Propeller	12 × 7 5/8	11 × 7
Distance of Frames from moulding edge to moulding edge, all fore and aft	24 ins	24 ins

(Class 100 A)

	Inches In Ship.	Inches In Ship.	16ths. In Ship.	Inches per Rule	Inches per Rule	16ths per Rule
FRAMES, Angle Iron, for ⅔ length amidships	6	3½	9	6	3½	9
Do. for ⅓ at each end			8			8
REVERSED FRAMES, Angle Iron	4	3½	9	4	3½	9
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	30		10	30		10
" thickness at the ends of vessel			8/9			8/9
" depth at ¾ the half-bdth. as per Rule	15	ins		15	ins	
" height extended at the Bilges	60	ins		60	ins	
BEAMS, Upper, ~~Spar, or Awning~~ Deck	10		10	10		10
~~Single or d'ble Ang. Iron,~~ Plate ~~or Tee~~ Bulb Iron	3½	3½	7	3½	3½	7
~~Single or~~ double Angle Iron on Upper edge						
Average space	48	ins		48	ins	
BEAMS, Main, ~~or Middle~~ Deck	11½		10	11½		10
~~Single or d'ble Ang. Iron,~~ Plate ~~or Tee~~ Bulb Iron	3½	3½	8	3½	3½	8
~~Single, or~~ double Angle Iron, on Upper Edge						
Average space	48	ins		48	ins	
BEAMS, Lower Deck— ~~Single or d'ble Ang. Iron,~~ Plate ~~or Tee~~ Bulb Iron	11½		10	11½		10
~~Single or~~ double Angle Iron on Upper Edge	3½	3½	8	3½	3½	8
Average space	48	ins		48	ins	
~~**BEAMS, Hold, or Orlop**~~ ~~Single or d'ble Ang. Iron, Plate or Tee Bulb Iron~~ ~~Single or double Angle Iron on Upper Edge~~ ... ~~Average space~~						
KEELSONS Centre line, single ~~or double~~ plate, ~~box, or~~ Intercostal, Plates	22		11	22		11
" Rider Plate			10			10
" ~~Bulb Plate to Intercostal Keelson~~	14		11	14		11
" Angle Irons	6½	4½	10	6½	4½	10
" Double Angle Iron Side Keelson	"	"	"	"	"	"
" Side Intercostal Plate			10			10
" do. Angle Irons	6½	4½	10	6½	4½	10
" Attached to outside plating with angle iron	3½	3½	8	3½	3½	8
BILGE Angle Irons	6½	4½	10	6½	4½	10
" do. ~~Bulb~~ Iron				16		14
" do. Intercostal plates riveted to plating for ⅗ length			10			10
BILGE STRINGER Angle Irons	6½	4½	10	6½	4½	10
Intercostal plates riveted to plating for ⅗ length			10			10
SIDE STRINGER Angle Irons	6½	4½	10	6½	4½	10

Plate 22 × 14/16 — Bulb Iron 16 × 14/16 — Inter. 10/16 for 3/5 L. & Bulb 11 × 10/16

	Inches In Ship.	16ths. In Ship.	Inches per Rule	16ths. per Rule
Flat Keel Plates, breadth and thickness				
PLATES in Garboard Strakes, br'dth & thickness	36	14	36	14
" From Garboard to upper part of Bilges		12 & 13		12 & 13
" Of d'bling at Bilge, ~~or increased thickness~~ and length applied ½ Length		13		13
" From up. prt of Bilge to lr. edge of Sh'rstrake		12 & 13		12 & 13
" Main Sheerstrake, breadth and thickness	52	15	40	15
" Of d'blng at Sh'stk. & lng. applied 3 3/3 L.	45	16	45	16
" ~~From M'n. to Upr. or Spar Dk. Sh'rstrake~~				
" ~~Up. or Spar Dk Sh'rstrake, brdth & thickn'ss~~				
Butt Straps to outside plating, breadth & thickness	19-9¾	16-9	19-9¾	16-9
Lengths of Plating 6 spaces				5-
Shifts of Plating, and Stringers 2 "				2
Gunwale Plate on ends of ~~Awning, Spar, or~~ Upper Deck Beams, breadth and thickness	52	10	53	10
Angle Iron on ditto	8×4×9		8×4×9	
Tie Plates fore and aft, outside Hatchways	4×4×9		4×4×9	
Diagonal Tie Plates on Beams No. of Pairs	Complete Iron Dk 7/16			
Flat of Up., Spar, or Awning Dk.*	Covered with 3½ Teak.			
How fastened to Beams				
Stringer Plate on ends of Main ~~or Middle~~ Deck Beams, breadth and thickness	53	10	53	10
Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Angle Irons on ditto, No. 2	4×4×9		4×4×9	
Tie Plates, outside Hatchways	Complete Iron Dk 7/16			
Diagonal Tie Plates on Beams, No. of pairs				
Flat of Middle Deck* do. do.	Covered with 3½ Teak.			
How fastened to Beams	Riveted & wel- & screw bolted			
Stringer Plates on ends of Lower Deck, ~~Hold or Orlop~~ Beams	51	9	51	9
Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Angle Irons on ditto, No. 2	4×4×9		4×4×9	
Stringer or Tie Plates, outside Hatchways	20	9	20	9
Flat of Lower Deck* 3" Pine				

Ceiling betwixt Decks, thickness and material	Lining & Sparring
" in hold do. do.	2½ Pine & P. Pine
Main piece of Rudder, diameter at head	9¼
do. at heel	10 × 6
Can the Rudder be unshipped afloat?	Yes
Bulkheads No. 7 No. per Rule 4	
" Thickness of 7/16	
" Height up 2 to main Dk & 5 to upper Dk, Plate at Lower main Dk aft of after Dk, which is to main Dk.	
" How secured to sides of ship Double frames	
" Size of Vertical Angle Irons 4 × 3½ × 9 and distance apart 30 ins.	
" Are the outside Plates doubled two spaces of Frames in length?	Yes

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

State clearly where plating is of alternate thicknesses—as diminished from diminished thickness at ends of vessel.

The **FRAMES** extend in one length from middle line to gunwale Riveted through plates with 7/8 in. Rivets, about 7 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to main Dk and to upper Dk 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 1¼ in. diameter, averaging 6 ins. from centre to centre.

" **Edges of Garboards** and to upper part of Bilge, worked clencher, double riveted; with rivets 1 7/8 in. diameter, averaging 4 & 3½ ins. from centre to centre.

" **Butts from Keel to turn of Bilge,** worked carvel, ~~double~~ treble riveted; with rivets 7/8 in. diameter averaging 3½ ins. from centre to centre.

" **Butts** of all Strakes at Bilge for ⅔ length, treble riveted with Butt Straps 1/8 thicker than the plates they connect.

" **Edges from Bilge to Main Sheerstrake,** worked clencher, double ~~or single~~ riveted; with rivets 7/8 & 1 in. diameter, averaging 3½ & 4 ins. from cr. to cr.

" **Butts from Bilge to Main Sheerstrake,** worked carvel, ~~double~~ treble riveted; with rivets 7/8 in. diameter, averaging 3½ 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 ~~length amidships~~~~. Butts of Upper ~~or Spar~~ Sheerstrake, treble riveted ⅓ length amidships.

" **Butts of Main Stringer Plate,** treble riveted for ½ length amidships. **Butts of Upper ~~or Spar~~ Stringer Plate,** treble riveted for ½ length.

" Breadth of laps of plating in double riveting 6 & 5-¼ Breadth of laps of plating in single riveting ✓

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & Double No. of Breasthooks, 5 Crutches, deep floors

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? "Consett" "Coats"

Manufacturer's name or trade mark, "Stockton M. I. Co" "Skerne"

The above is a correct description.

Builder's Signature, John Elder & Co

Surveyor's Signature, C. P. Dodd

Surveyor to Lloyd's Register of British and Foreign Shipping.

No. 1 for Iron Ships.—600.—24/5/81.)

Steam Printers, 19, Old Street, Goswell Road, E.C., London.

Workmanship. Are the butts of plating planed or otherwise fitted? Planed 6065 gs

Do the edges of the carvel work and of the butts fay 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? a very few.

Masts, ~~Bowsprit~~, Yards, &c., are 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~~ 2 Masts constructed in accordance with the 2 tracings attached herewith, and with the Secretary's letter of the 9th June 1882. The Iron is "Clydesdale Best-Boiler", each thickness was tested as required and found satisfactory.

NUMBER for EQUIPMENT 4557 G

SAILS.		CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntdt.
N°.		Chain	150 5/6	2 3/8	142·1	300 ft 2 3/16	Tipton
	Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	150		101·5		
		Iron Stream Chain	1st 5787 2nd 5799				signed
One	Fore Top Sails,	or Steel Wire ..	90 4/6	1 1/4	42·125	90 ft	by
		or Hempen Strm Cable	120	4 3/4	28·125 Steel	1 1/4 Certificates	E. R.
Dupl-	Stay Sails,	Towline, Hemp.	90	3	" "	produced	Isitt.
		or Steel Wire ..	90	2 1/2	" "	120·4 3/4	
	Main Sails,	Hawser	90	12	54 54	90·12	
		Warp	180	9	letter		
	Main Top Sails,	quality	180	6	15·2·83	90·10	
	and spare	good	200	6	90·4 1/2		

ANCHORS.	N°.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntdt.
Bower Anchors	6888	4 7·3·7	41·0·3·21	4 3 cwt-	Tipton
(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	6800	4 6·3·20 10·3·0	40·18·0·0	total	signed by
22 Aug/82	6889	4 3·1·0 8·3·21	38·1·1·0	165 1/2	E. R.
24 July/82	6765	4 3·1·0 7·2·14	38·1·1·0	cwt-	
22 Aug/82	6817	15·3·0 3·1·14	17·3·0·14	14	Isitt.
22 July/82	6865	7·2·0 1·2·7	9·13·3·0	7	
Stream Anchor 8 Aug/82	6857	3·3·0 1·0·7	6·5·1·7	3 2	
Kedge ...					
2nd Kedge ...					

Standing and Running Rigging wire & Hemp sufficient in size and good in quality. She has 8 ~~2~~ ~~Long~~ Boats and 2 others

The Windlass is Napier's Patent- Capstan D° and Rudder good Pumps good

Engine Room Skylights.—How constructed? Teak on Iron Coaming How secured in ordinary weather? Bolted

What arrangements for deadlights in bad weather? 18" above Bridge Dk. guards and tarpaulins

Coal Bunker Openings.—How constructed? Forts inside & Cast Iron on Dk. How are lids secured? Screws & Bayonet fixing Height above deck? flush

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? open bulwarks aft. & Bridge house 1 Ash port; For^d 2 water Ports, one gangway port, 2 Cargo ports, 2 mooring pipes and 3 scuppers.

Cargo Hatchways.—How formed? as usual

State size **Main Hatch** 19·9" × 13·3" Forehatch 12ft × 10 ft Quarterhatch 15·9" × 10·10"

If of extraordinary size, state how framed and secured? One web plate and one shifting beam

What arrangement for shifting beams?

Hatches. If strong and efficient? 3" & 3 1/2 Solid Latches.

Order for Special Survey No. 1712

Date 2 January 1882

Order for Ordinary Survey No.

Date

No. 269 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

Specially Surveyed:- 1882: Jan 31; Feb 3, 8, 13, 14, 22; Mar 3, 15, 24; Apr 12, 21, 26; May 2, 9, 15, 18, 22, 29; June 1, 5, 8, 12, 15, 21, 26, 28, 29; July 3, 24, 27, 31; Aug 7, 10, 14, 17, 21, 28, 30; Sept 4, 7, 11, 14, 15, 18, 21, 25, 29; Oct 2, 9, 12, 16, 19, 23, 30; Nov. 2, 6, 8, 16, 20, 23, 27, 30; Dec. 4, 7, 11, 14, 16, 21, 26, 29; 1883 Jan 8, 10, 11, 15, 17, 22, 25, 29; Feb 1, 6, 7, 12, 15, 19, 26; Mar 1, 5, 8, 19, 22, 26, 29; April 2.

General Remarks (State quality of workmanship, &c.)

The workmanship is good, and the vessel has been built in accordance with the approved tracings, 7 in number, herewith attached, and with the instructions contained in the Secretary's letters of the 1st & 28th Dec^r 1881, 5th April, 9th & 19th June and 11th Dec^r 1882. There are two deep water ballast tanks, one aft each side & under shaft tunnel 40 ft long, 10 ft high and containing 152 tons of water; and another each side and under passage between engine and boiler spaces, 20 ft long, 8 ft high and containing 230 tons of water; each of these tanks has been tested with a head of water up to the load line and found satisfactory.

Forecastle 5·9 ft; Open Bridge house 100 ft (with open bulwarks) House 7 ft aft Bridge 12 1/2 ft long × 14 1/2 ft broad; Shade deck, aft 81 ft covering middle line house 52 1/2 ft × 20 1/2 ft and skylight framed up to height of shade Dk 16 ft × 15 ft.

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. (If double bottom, state particulars on separate form.)

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 ... ...£ 5:0:0 is received by me, 6/4 1883

Special ... ...£ 126:10:0

Certificate ... Status

(to be sent as per margin).

(Travelling Expenses, if any, £).

J. Dodd

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute Tuesday 10th April 1883.

Character assigned 100 A 1

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

Reference should be made to any correspondence connected with the case.