IRON SHIP. (5th JUNE 82) 4501

No. 4501 Survey held at *Dundee* Date, First Survey *22nd Oct 1881* Last Survey *31st May* 1882

On the *S.S. "Mallard"*

TONNAGE under Tonnage Deck	954.05
~~Ditto of Third, Spar, or Awning Deck~~ *Space between decks*	2.77
Ditto of Poop, ~~or Raised Qr. Dk.~~	294.71
Ditto of Houses on Deck	3.29
Ditto of Forecastle	41.40
Gross Tonnage	1296.22
Less Crew Space	46.53
	1249.69
Less Engine Room	414.79
Register Tonnage as cut on Beam	834.90

Official Number *85151*

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

	Feet.
Half Breadth (moulded)	16.5
Depth from upper part of Keel to top of Upper Deck Beams	20.25
Girth of Half Midship Frame (as per Rule)	33.00
1st Number	69.75
~~1st Number if a 3 Decked Vessel deduct 7 feet~~	
Length	223.58
2nd Number	15594.7
Proportions— Breadths to Length	6.7
Depths to Length—Upper Deck to Keel	11.04
Main Deck ditto	

Master *J. Hayes*
Built at *Dundee*
When built *1882* Launched *4th May*
By whom built *Gourlay Bros & Co*
Owners *General Steam Navigation Co.*
Residence *London*
Port belonging to *London*
Destined Voyage *London*
~~If~~ Surveyed while Building, ~~Afloat, or in Dry Dock.~~

LENGTH on deck as per Rule	Feet. 223	Inches. 7	BREADTH—Moulded	Feet. 33	Inches. 0	DEPTH top of *Tank* ~~Floors~~ to Upper Deck Beams	Feet. 18	Inches. 6	Power of Engines	Horse. 140
						Do. do. ~~Main~~ Deck Beams *Lower*	17	6		

N°. of Decks with flat laid *two*
N°. of Tiers of Beams *two*

Dimensions of Ship per Register, length, *225.0* breadth, *33.1* depth, *14.4*

Rule 1880-81 or approved midship section

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	*Cellular bottom*	
STEM, moulding and thickness	8½ × 2 3/8	8½ × 2 3/8
STERN-POST for Rudder do. do.	8½ × 4 3/4	8½ × 4 3/4
" " for Propeller		
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23 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 ⅗ length amidships	4½	3	7	4½	3	7
do. for ⅕ at each end			6			6
REVERSED FRAMES, Angle Iron	3	3	7	3	3	7
FLOORS, ~~depth and thickness of Floor Plate at mid line for half length amidships~~	*Cellular double bottom*					
~~thickness at the ends of vessel~~						
~~depth at ¾ the half bdth. as per Rule~~						
~~height extended at the Bilges~~						
BEAMS, Upper, ~~Spar, or Awning~~ Deck		8	8		8	8
~~Single or d'ble Ang. Iron,~~ Plate ~~or Tee~~ Bulb Iron						
~~Single or~~ double Angle Iron on Upper edge	3	3	6	3	3	6
Average space	*alternate frame*					
~~BEAMS, Main, or Middle Deck~~						
~~Single or d'ble Ang. Iron, Plate or Tee Bulb Iron~~						
~~Single, or double Angle Iron, on Upper Edge~~						
~~Average space~~						
BEAMS, Lower Deck—		8	8		8	8
~~Single or d'ble Ang. Iron,~~ Plate ~~or Tee~~ Bulb Iron						
~~Single or~~ double Angle Iron on Upper Edge	3	3	6	3	3	6
Average space	*alternate frame*					
~~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~~ *through* plate, ~~box, or Intercostal, Plates~~	4 × 3 × 7/16 (4 × 3 × 7/16)					
~~Rider Plate~~						
~~Bulb Plate to Intercostal Keelson~~	4½ × 9/16 (4½ × 9/16)					
~~Angle Irons~~						
~~Double Angle Iron Side Keelson~~						
~~Side Intercostal Plate~~						
~~do. Angle Irons~~	8½ × 1 (8½ × 1)					
~~Attached to outside plating with angle iron~~						
~~BILGE Angle Irons~~						
~~do. Bulb Iron~~						
~~do. Intercostal plates riveted to plating for length~~						
BILGE STRINGER Angle Irons	5	3½	9	5	3½	9
~~Intercostal plates riveted to plating for length~~						
~~SIDE STRINGER Angle Irons~~						

Cellular double bottom ⅝ in ; *3½ × 7/16 double bulb riveted*

	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	34	11	34	11
" From Garboard to upper part of Bilges		9		9
" Of ~~d'bling at~~ Bilge, ~~or increased thickness and length applied~~		10		10
" From up. prt of Bilge to lr. edge of Sh'rstrake		9 & 10		9 & 10
" Main Sheerstrake, breadth and thickness	36	13	36	13
" ~~Of d'bling at Sh'stk. & lng. applied~~				
" ~~From M'n. to Upr. or Spar Dk. Sh'rstrake~~				
" ~~Up. or Spar Dk. Sh'rstrake, brdth & thickn's~~				
Butt Straps to outside plating, breadth & thickness	17 to 11½	14 to 8	16½ to 11½	14 & 8
Lengths of Plating	*13.5*		*seven frame spaces*	
Shifts of Plating, and Stringers	*not less than two*			
Gunwale Plate on ends of ~~Awning, Spar, or~~ Upper Deck Beams, breadth and thickness	50	9	50	9
Angle Iron on ditto	5 × 3½ ×	9	5 × 3½ ×	9
Tie Plates fore and aft, outside Hatchways	12	9	12	9
~~Diagonal Tie Plates on Beams No. of Pairs~~				
Flat of Up., ~~Spar, or Awning~~ Dk.*	*Iron deck 6/16 for one half vessels length with wood deck 4 in thick laid thereon*			
How fastened to Beams	*fastened with galv^d nuts & screw bolts*			
~~Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness~~				
~~Is the Stringer Plate attached to the outside plating?~~				
~~Angle Irons on ditto, No.~~				
~~Tie Plates, outside Hatchways~~				
~~Diagonal Tie Plates on Beams, No. of pairs~~				
~~Flat of Middle Deck* do. do.~~				
~~How fastened to Beams~~				
Stringer Plates on ends of Lower Deck, ~~Hold or Orlop~~ Beams	30	8	30	8
Is the Stringer Plate attached to the outside plating?	*Yes*			
Angle Irons on ditto, No. *2*	4 × 4 ×	8	4 × 4 ×	8
Stringer or Tie Plates, outside Hatchways	12	8	12	8
Flat of Lower Deck*	*R. Pine*		6 × 3	
Ceiling betwixt Decks, thickness and material	*R. Pine 2½ in*			
in hold do. do.				
Main piece of Rudder, diameter at head	5¾		5¾	
do. at heel	3		3	

Lower deck stringer in engine boiler & coal spaces

Can the Rudder be unshipped afloat? *Yes*
Bulkheads No. *5* No. per Rule *4*
" Thickness of *6/16 to 7/16* *6/16 to 7/16*
" Height up *to main deck*
" How secured to sides of ship *double frame*
" Size of Vertical Angle Irons *3 × 3 × 7/16* 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.

Inches, 16ths. — state clearly where plating is of alternate thicknesses—as distinguished from diminished thickness at ends of vessel.

The FRAMES extend in one length from *Keel* to *gunwale* Riveted through plates with *7/8* in. Rivets, about *6* apart.

The REVERSED ANGLE IRONS on floors and frames extend *from* middle line to *main deck* and to *lower deck* 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 *5½* 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 *3½* ins. from centre to centre.

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

" Butts of *3* Strakes at Bilge for *½* length, treble riveted with Butt Straps *1/16* thicker than the plates they connect.

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

" Butts from Bilge to Main Sheerstrake, worked carvel, double 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 *½* length amidships. ~~Butts of Upper or Spar Sheerstrake, treble riveted length amidships.~~

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

" Breadth of laps of plating in double riveting *5½* ~~Breadth of laps of plating in single riveting~~

Butt Straps of Keelsons, Stringer and Tie Plates, treble / double ~~or single~~ Riveted? No. of Breasthooks, *4* Crutches, *4*

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Ordinary ship plate*

Manufacturer's name or trade mark, *Dorman Long & Co (Angle & Bulb)* *Hazlepool Co. (Plate)* *Ansett Co Stockton Co.*

The above is a correct description.
Builder's Signature, *Gourlay Brothers & Co* Surveyor's Signature, *Geo. Cooper*

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

ROBT. EDMD. TAYLOR & SON Commercial and General Steam Printers, 19, Old Street, Goswell Road, E.C. London.

Form No. 1

DUN208-0001

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

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? few.

Masts, Bowsprit, Yards, &c., are Iron & wood in gd 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 Fore & main mast of iron

Fore mast extreme 76·9" - Max. diar 21 in Plates 6/16 & 5/16 } two plates in wood double ended bands - bibb butts

Main " " 70·0 " 21" " } above deck double below - doubled at partners

Schooner rigged

NUMBER for EQUIPMENT 17154

SAILS. N°.		CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntdt.
	Fore Sails,	Chain ..... (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	135 1/2	1 9/16	43 18/20	270-1 7/16	No 3268 17-4-82 L.P.H. Clerk.
	Fore Top Sails,	Iron Stream Chain	135	1 9/16	"		No 3267 14-4-82 L.P.H. Clerk.
	Fore Topmast Stay Sails,	~~or Steel Wire~~ .. or Hempen Strm Cable	75 1/2	1	18	75-1	
			No 10713 22-4-82 L.P.H. Restrictor				O.B. Lewis Supt.
	Main Sails,	Towline, Hemp. or Steel Wire ..	90	3 1/4 Steel	22	90-3 1/4 Steel wire	
	Main Top Sails,	Hawser	90	9		90-8	
	and	Warp	90	4 1/2		90-6	
Complete suit		quality gd	90	6 & others.			

ANCHORS.	N°.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntdt.
Bower Anchors (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	6801 18-4-82	23-0-24	23·6·0·0	23-2-0	L.P.H. Clerk.
	6795 14-4-82	22-2-19	22·17·3·0	23-2-0	
	579 1-9-73	21-3-12	22·5·0·0	20-0-0	
Total Weight		67-2-24		67-0-0	
Stream Anchor	6802 17-4-82	8-0-12	10-5-0-0	8-0-0	L.P.H. Clerk.
Kedge ...	6803 17-4-82	4-0-12	6-10-0-0	4-0-0	
2nd Kedge ...	2695 30-4-75	2-0-2	4-10-0-0	2-0-0	2

Standing and Running Rigging Galv^d wire & rope sufficient in size and gd in quality. She has Four ~~Long~~ Boats ~~and~~

The Windlass is Emerson & Walker steam Capstan gd and Rudder gd Pumps 8 wing & deck Compartment

Engine Room Skylights.—How constructed? Teak skylight on iron coaming How secured in ordinary weather? bolted

What arrangements for deadlights in bad weather? 22 in. above prop deck with solid shutters & bullseyes

Coal Bunker Openings.—How constructed? Angle iron frame How are lids secured? wood hatches with iron battens Height above deck? 6" above bridge deck

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

Cargo Hatchways.—How formed? Plate & angle iron in the usual manner

State size **Main Hatch** 15·3" × 10·0" Forehatch 9·6" × 10·0" Quarterhatch 15·3" × 10·0"

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

What arrangement for shifting beams? Shifting bulb beam & wood pin & cotter

Hatchways strong and efficient? Yes

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

Order for Special Survey No. 412 Date 24th Oct. 1881

Order for Ordinary Survey No. ✓ Date ✓

No. 111 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 } 1881 Oct 22·Nov 4·9·16·24·25·29; Dec 5·8·16·22; - 1882 Jan 12·14·

2nd. On the plating during the process of riveting } 20·30; Feb 3·6·10·20·22?4; Mar 3·6·8·10·14·14·22·30; -

3rd. When the beams were in and fastened, and before the decks were laid..... } April 1·4·10·18·21·27; May 3·4·15·18·24·26·29·31·

4th. When the ship was complete, and before the plating was finally coated or cemented.. }

5th. After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.) This vessel is built in accordance with the plans submitted to and approved by the Committee - London letters N^o - 17th Oct^r 1881 - 16th Feby. 1882 - & in other respects in accordance with the Rules -

She is constructed with cellular double bottom - formed with centre girder as shown above & two side girders 6/16 on each side of centre with 7/16 wing plates - top plating 6/16 thro' stroke at centre which is 36 × 7/16 & under the Engines where it is 10/16 - Transverse intercostal plates 6/16 are fitted at alternate frames except under Engines where they are fitted on every frame - This cellular bottom is divided into four compartments & has been tested under pressure as directed by the Rules & is satisfactory

An outside bilge keel of bulb 10 × 8/16 between two bars 5 × 3½ × 7/16 is fitted in the midship body of the vessel - The material & workmanship throughout the vessel are alike satisfactory She has a full poop 130 ft long of which the beams are 6 × 3 × 7/16 - Bridge 30 × 7/16; Tres 9 × 7/16; plating 6/16; deck 3 ins thick: & a topgallant forecastle 36 ft long of which the beams are bulb 6½ × 6/16 with double angle iron 2¾ × 2¾ × 6/16 on upper edge; other scantlings as the poop - An iron deck is fitted for ½ length as shown above & the main deck bridge is doubled with 9/16 plating for about 20 feet at poop front (130 ft) (36 ft)

~~State if one~~, two, ~~or three~~ decked vessel, ~~or if spar, or awning decked~~; and the lengths of poop, ~~bridge~~, forecastle, ~~& 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 A1.

The amount of the Entry Fee ... ...£ 5 : 0 : 0 is received by me, Q.W.G.

1296 tons Special ... ...£ 54 : 8 : 0 31-5-1882

Certificate ... : :

(to be sent as per margin).

(Travelling Expenses, if any, £).

Geo. Cooper

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

Committee's Minute Tuesday, 6th June, 1882.

Character assigned 100 A1 Deck Port D