

STEEL IRON SHIP.

(Received at London Office, 3 NOV 1887)

No. 8194 Survey held at Glasgow Date, First Survey 17 Jan^r 1887 Last Survey 24th October 1887

On the Steel Screw Steamer "Mogul" (2 masts schooner rig) Master J. M. Hudson. 1887. 1887

TONNAGE under 2617.27
Tonnage Deck
Ditto of Third, Spar, or Awning Deck.
Ditto of Poop, or Raised-Or. Dk.
Ditto of Houses on Deck
Ditto of Forecastle
Gross Tonnage 2818.99
Less Crew Space 89.46

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

Half Breadth (moulded) 19.88
Depth from upper part of Keel to top of Upper Deck Beams 28.00
Girth of Half Midship Frame (as per Rule) 43.10
1st Number 90.98
1st Number, if a 3-Decked Vessel deduct 7 feet 7.0
Length 83.98
2nd Number 27.965
Proportions—Breadths to Length 8.37
Depths to Length—Upper Deck to Keel 11.37
Main Deck ditto 16.2

Built at Whitinch, Glasgow
When built 1887 Launched 7th Sept^r
By whom built Aitken & Mansel
Owners Mogul S.S. Co. (Lim.) (Gallatin, Hume, & Co.)
Residence London
Port belonging to Rochester
Destined Voyage China
If Surveyed while Building, Afloat, or in Dry Dock. Specially surveyed while building.

LENGTH on deck as per Rule 333 - BREADTH Moulded 39.76 DEPTH top of Floors to Upper Deck Beams 25.11/2 Do. do. Main Deck Beams 18.5 1/2 Power of Engines 400 Horse. No. of Decks with flat laid 2 No. of Tiers of Beams 3

Dimensions of Ship per Register, length, 325 breadth, 40 depth, 26 Moulded depth 27-2.

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	9 1/2 x 3 1/4	9 1/2 x 3 1/4	9 1/2 x 3 1/4	9 1/2 x 3 1/4	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2
STEM, moulding and thickness	9 1/2 x 3 1/4	9 1/2 x 3 1/4	9 1/2 x 3 1/4	9 1/2 x 3 1/4	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2
STERN-POST for Rudder do. do.	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2
" " for Propeller	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2	11 x 6 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for 1/2 length amidships	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4
Do. for 1/2 at each end	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4
EVERSED FRAMES, Angle Iron	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
" thickness at the ends of vessel	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
depth at 3/4 the half-bdth. as per Rule	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
height extended at the Bilges	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
Single or double Angle Iron on Upper edge	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
Average space	48	48	48	48	48	48	48	48
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
Single or double Angle Iron on Upper Edge	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
Average space	24	24	24	24	24	24	24	24
BEAMS, Lower Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2
Single or double Angle Iron on Upper Edge	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
Average space	20	20	20	20	20	20	20	20
BEAMS, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2	10 1/2
Single or double Angle Iron on Upper Edge	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
Average space	20	20	20	20	20	20	20	20
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2
" Rider Plate	14	14	14	14	14	14	14	14
" Bulb Plate to intercostal Keelson	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
" Angle Irons	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
" Double Angle Iron Side Keelson (3 pairs)	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
" Side intercostal Plate	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2
" do. Angle Irons	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2
" Attached to outside plating with angle iron	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
BILGE Angle Irons	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
" do. Bulb Iron	11	11	11	11	11	11	11	11
" do. Intercostal plates riveted to plating for 3/4 length	7	7	7	7	7	7	7	7
BILGE STRINGER Angle Irons	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
Intercostal plates riveted to plating for 3/4 length	7	7	7	7	7	7	7	7
SIDE STRINGER Angle Irons	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2

The FRAMES extend in one length from keel 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 upper deck and to middle deck alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? And butts properly shifted? Yes.

PLATING. Garboard, double riveted to Keel, with rivets 1 1/8 in. diameter, averaging 5 1/2 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 3/4 ins. from centre to centre.
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 3/4 ins. from centre to centre.
" Butts of all Strakes at Bilge for 3/4 length, treble riveted with Butt Straps thicker than the plates they connect, for 1/2 length & 3/4 length.
" Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.
" Edges of Main Sheerstrake, double or single riveted with lumb, Upper Sheerstrake, double or single riveted.
" Butts of Main Sheerstrake, treble riveted for 3/4 length amidships, Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
" Butts of Main Stringer Plate, treble riveted for 3/4 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 3/4 length.
" Breadth of laps of plating in double riveting 6" & 5 1/4" Breadth of laps of plating in single riveting with double straps for 1/2 length.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double No. of Breasthooks, 8 Crutches, deep floors

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good Iron rivets throughout.

Manufacturer's name or trade mark, Frames, reversed frames, Keelsons, Worsind; outside plating, Clyde Works.

The above is a correct description.

Builder's Signature, Aitken & Mansel Surveyor's Signature, J. Stansbury

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

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

Masts, Bowsprit, Yards, &c., are Steel 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

Fore Mast 86 1/2 ft 26 x 4 1/2 19 1/2 x 5 1/2 17 x 5 1/2 18 x 5 1/2

Main 78 24 x 4 1/2 18 x 5 1/2 16 1/2 x 5 1/2 18 x 5 1/2

Constructed as shown upon approved sketch

device connected with the case.

One Suit and Spare and

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprtd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Tested & Suprtd.
SAILS.												
CABLES, &c.												
No.	Chain	300	1 1/2	9 1/2 x 6 7/8	300	1 1/2	No. 6603	Bower Anchors	1	37.2.14	34.4.1.14	No. 16195
Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	Tested by the River Wear Commission						(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	2	37.1.14	34.0.2.14	No. 1619
Fore Top Sails,	Iron Stream Chain	Establishment signed J. Hartness							3	31.1.14	29.13.0.14	No. 1619
	or Steel Wire ..	90	1 1/2	3 1/2 x 2 3/4	90	1 1/2	No. 6607					
Fore Topmast Stay Sails,	or Hempen Strm Cable							Tested by the River Wear Commission				
	Towline, Hemp.	100	4	23	100	4	Steel wire	Establishment signed J. Hartness				
	or Steel Wire ..						Bulbina & Co					
Main Sails,	Hawser	90	3 1/4	22	90	10	No. 6607	1st Beam Anchor	4	11.1.14	13.5.0.0	No. 16113
Main Top Sails,	Warp	90	2 3/4	15 1/2	90	8 1/2	No. 6607	2nd Kedge	5	5.2.14	7.18.1.21	No. 16114
	quality <u>Good</u>							2nd Kedge	6	23.3.7	5.7.2.0	No. 16115

Standing and Running Rigging Steel wire & hemp sufficient in size and good in quality. She has 2 Log Boats and four others
The Windlass is Iron Patent Capstan good and Rudder good Pumps good & sufficient

Engine Room Skylights. How constructed? Iron casings. Yeak over. How secured in ordinary weather? By screw bolts & straps.

What arrangements for deadlights in bad weather? Glass bulls eyes

Coal Bunker Openings. How constructed? Cast iron rim How are lids secured? Bayonet couplings Height above deck? Flush.

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Scuppers on each side also three bulwark ports, aft, each 20 x 12. Part open bulwarks with rails forward.

Cargo Hatchways. How formed? Plate casing and fore & after in usual manner

State size Main Hatch 26 x 14 and 16 x 12 Fore hatch 17 x 10 Quarter hatch 12 x 10

If of extraordinary size, state how framed and secured? See sketch

What arrangement for shifting beams? A shifting beam in smaller main hatchway and web plate beam in larger. A fore and after of wood

Hatches, If strong and efficient? Solid. 3 inches. 3 in fore and after hatchways. Three fore and after in other hatchways.

Order for Special Survey No. <u>2004</u>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1884. Jan'y 17. 19. 20. 21. Feb'y 2. 7. 14. 16. 21. 22. 23.
Date <u>Feb'y 1884</u>	2nd. On the plating during the process of riveting	Mar. 3. 9. 16. 21. 23. 28. 31. April. 4. 6. 13. 18. 20. 21. 25.
Order for Ordinary Survey No. <u>2005</u>	3rd. When the beams were in and fastened, and before the decks were laid...	24. 28. May. 2. 5. 9. 12. 16. 18. 23. 25. 30. June 2. 6. 8.
Date <u>Feb'y 1884</u>	4th. When the ship was complete, and before the plating was finally coated or cemented...	20. 24. 27. 29. July 6. 11. 25. 28. Aug. 4. 8. 17. 23. 26. 27.
No. <u>134</u> in builder's yard.	5th. After the ship was launched and equipped	Sept. 5. 8. 12. 19. 21. 22. 28. Oct. 5. 10. 13. 24.
State dates of letters respecting this case		4/1/86 19/1/86 19/1/87 23/1/87 19/5/87 14/1/87

General Remarks (State quality of workmanship, &c.) This is a steel screw steamer, having a topgallant forecastle, bridge house and poop, built in accordance with the approved plans attached hereto and with the Rules generally. Ample provision has been made against painting - the deck erections have been strongly constructed and the deck openings properly protected. The Committee's circulars relating to the use of steel have been complied with. The water ballast tanks have been tested with water pressure as required by the Rules and found to be watertight.

A freeboard of 5' 4" has been assigned by the Committee to this vessel (See Sec'y letter of 9th June 1884) in accordance with the measurements and particulars supplied by the builders, which measurements have been verified since she was built.

This freeboard of 5' 4" has been duly set off on both sides of the vessel in accordance with the Committee's circular on the subject.

State if on 3 decked vessel, on 1 open, or on 2 open, or on 3 open, 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 Paint and Cement Outside Paint and Composition

I am of opinion this Vessel should be Classed 100 A 1 "Steel"

The amount of the Entry Fee£ 5 : - : - is received by me, (Signature)

Special£ 93 : 5 : - 26/10/ 1884

(to be sent as per margin). Certificate ...

Committee's Minute FRIDAY 4 NOV 1887 18

Character assigned 100 A 1 Steel

2 DRS (1 Steel 1 Pl Steel) 3 1/2 DRS DB. Particulars appended 300 record freeboard 3/11/87

(The Surveyors are requested to note on or below the space for Committee's Minute.)