

Steel IRON SHIP.

(Received at London Office, 22nd Nov 1894)

No. 6660 Survey held at Glasgow Date, First Survey 21st Nov 1893 Last Survey 12th September 1894

On the Screw Steamer "Higo Maru"

TONNAGE under Tonnage Deck	1333.22	ONE, OR TWO DECKED, THREE DECKED VESSEL,
Ditto of Third, Spar, or Awning Deck		SPAR, OR AWNING-DECKED VESSEL.
Ditto of Poop, or Raised Or. Dk.		Half Breadth (moulded) 16.50
Ditto of Houses on Deck	21.03	Depth from upper part of Keel to top of Upper Deck Beams 14.04
Ditto of Forecastle		Girth of Half Midship Frame (as per Rule) 29.84
Gross Tonnage	1354.25	1st Number 63.41
Less Crew Space	82.54	1st Number, if a 3 Decked Vessel deduct 7 feet
Less Engine Room	433.36	Length 233.45
Register Tonnage as cut on Beam	838.32	2nd Number 148.22
		Proportions— Breadths to Length 7.08
		Depths to Length— Upper Deck to Keel 13.41
		Main Deck ditto

Master J. Adair
 Built at Glasgow
 When built 1894 Launched 20th Augt
 By whom built London & Glasgow S. S. Co.
 Owners Nippon Yusen Kaisha Co.
 Residence Tokio, Japan
 Port belonging to Tokio
 Destined Voyage Tokio
 If Surveyed while Building, Afloat, or in Dry Dock.
Built under Special Survey

LENGTH on deck as per Rule	Feet. Inches.	BREADTH— Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams Do. do. Main Deck Beams	Feet. Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
233.45		33.0		22.45		150		Two	Three
Dimensions of Ship per Register, length, 233.0 breadth, 33.1 depth, 22.45									
KEEL, depth and thickness	8 x 2 1/2	8 x 2 1/2							
STEM, moulding and thickness	1/2 x 2 1/2	1/2 x 2 1/2							
STERN-POST for Rudder do. do.	1/2 x 5 1/2	1/2 x 4 1/2							
" for Propeller	1/2 x 5 1/2	1/2 x 4 1/2							
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23							
FRAMES, Angle Iron, for 1/2 length amidships	4 3 12	4 3 12							
Do. for 1/2 at each end	4 3 10	4 3 10							
REVERSED FRAMES, Angle Iron	3 3 10	3 3 10							
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	18 1/2 13	18 1/2 13							
" thickness at the ends of vessel	12	12							
" depth at 1/2 the half-bdth. as per Rule	9 1/2	9 1/2							
" height extended at the Bilges	3 1/2	3 1/2							
BEAMS, Upper, Spar, or Awning Deck	6 3 12	6 3 12							
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper edge									
Average space	46	46							
BEAMS, Main, or Middle Deck	8 13	8 13							
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge	3 3 10	3 3 10							
Average space	46	46							
BEAMS, Lower Deck									
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge									
Average space									
BEAMS, Hold, or Orlop	9 15	9 15							
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									
Single or double Angle Iron on Upper Edge	4 3 1/2 13	4 3 1/2 13							
Average space	10 ft 6 in spaces	10 ft 6 in spaces							
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	15 18	15 18							
" Rider Plate	10 1/2 18	10 1/2 18							
" Bulb Plate to Intercoastal Keelson									
" Angle Iron	5 3 1/2 13	5 3 1/2 13							
" Double Angle Iron Side Keelson									
" Side Intercoastal Plate									
" do. Angle Iron	5 3 1/2 13	5 3 1/2 13							
" Attached to outside plating with angle	3 3 12	3 3 12							
BILGE Angle Iron	5 3 1/2 13	5 3 1/2 13							
" do. Bulb	8 13	8 13							
" do. Intercoastal plates riveted to plating for length									
BILGE STRINGER Angle Iron	5 3 1/2 13	5 3 1/2 13							
Intercoastal plates riveted to plating for length									
SIDE STRINGER Angle Iron									

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to top of main deck stringer and to angle iron 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 1 1/2 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 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.
 Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1 1/2 thicker than the plates they connect.
 Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.
 Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.
 Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 2 1/2 ins.
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & Double No. of Breasthooks, 6 Crutches, 4
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Mild Steel (Simons process)
 Manufacturer's name or trade mark, Grosvend
 The above is a correct description.
 Builder's Signature, W. J. House Surveyor's Signature, J. J. House
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 6660 *gl*
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 *Good* 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

Pole Mast { Foremast 102.0 14 x 5 23 x 6 18 1/2 x 5 16 x 5 6 x 1/2 } Schooner
Clydesdale Iron { Mainmast 96.2 17 x 5 22 x 6 16 1/2 x 5 14 1/2 x 5 6 x 1/2 } Rigged
Seams double riveted. Butts treble riveted. Butt straps 1/2" thicker than the plates they connect.
Two plates in the round. Doublings fitted in way of wedgings.

NUMBER for EQUIPMENT 018211		Fathoms.	Inches.	Test per Certificate.	Inches per rule.	Machine where Tested & Suprtd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprtd.
SAILS.												
CABLES, &c.												
N ^o .	Chain	240	1 1/2	0.5 6 1/4 tons	240 x 1 1/2	Ref. 10/1/84						
Fore Sails,	Iron Stream Chain	45	1	0.5 2 1/4 tons	45 x 1	Ref. 10/1/84						
Fore Top Sails,	or Steel Wire			7.5 18 "								
Fore Topmast	or Hempen Strm											
Stay Sails,	Cable											
Main Sails,	Towline, Hemp.											
Main Top Sails,	or Steel Wire	90	3 1/2	0.5 2 1/4 tons	90 x 3 1/2	Ref. 14/7/84						
and	Hawser	90	8		90 x 8							
	Warp	90	6		90 x 6							
	quality											

Standing and Running Rigging *Nile & Hemp* sufficient in size and *good* in quality. She has *2-26 ft. Long* Boats and *1-23 ft. girth* 1-22 ft. cants.

The Windlass is *Iron* *Capstan* *Good* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *Leak framing* How secured in ordinary weather? *Angle iron coming & bolts.*

What arrangements for deadlights in bad weather? *Gratings and tarpaulins*

Coal Bunker Openings.—How constructed? *Cast iron frames* How are lids secured? *Lockings* Height above deck? *Flush*

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

Five scuppers on each side

Cargo Hatchways.—How formed? *Deep plates forming coming and carling*

State size Main Hatch *18' 2" x 12' 6"* Forehatch *4' 6" x 8' 3"* Quarterhatch

If of extraordinary size, state how framed and secured? *Ordinary Size*

What arrangement for shifting beams? *One deep web plate in Main Hatchway*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *1898*

Date *29th Sept. 1883*

Order for Ordinary Survey No. *✓*

Date *✓*

No. *243* in builder's yard.

State dates of letters respecting this case *13th 24th Sept. 16th Oct. 1883, and 25th Feb. 1884.*

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 } *1883, Nov. 21. Dec. 4, 14, 17, 19, 24 & 31.*
2nd. On the plating during the process of riveting } *1884, Jan. 8, 10, 14, 17, 21, 24, 28, 20 & 31. Feb. 5, 4, 11, 12, 18, 21, 25 & 29.*
3rd. When the beams were in and fastened, and before the decks were laid.... } *Mar. 4, 7, 11, 14, 18, 21, 26, 27 & 31. April 4, 8, 14, 16, 17, 23, 25 & 29.*
4th. When the ship was complete, and before the plating was finally coated or cemented... } *May 1, 8, 12, 19, 23, 26, 28 & 30. June 2, 4, 9, 11, 12, 18, 20, 23, 26 & 30.*
5th. After the ship was launched and equipped } *July 3, 4, 8, 10, 14, 16 & 17. Aug. 4, 11, 19 & 28. Sept. 1, 5 & 12.*

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

This is a sister vessel to the "Hii Manu", (Glasgow Report No. 6595) except that she is built of "Steel".

This vessel has been built in conformity with the approved tracings, No. 5, attached hereto, the instructions relating to same, and otherwise in compliance with the Rules with a view to the class contemplated.

The quality of workmanship and material is good.

The foremast and aftermast bulkheads have been tested as required by the Rules.

The approved Freeboard of 1' 4 1/2" to the top of the wood main deck is now marked on the vessel's sides, as shown in Notice No. 472, which gives 8' 7 1/2" to the running deck.*

A freeboard of 1' 0 1/2" in fresh water is also marked on the vessel's sides.

Moulded Depth 16' 5"

State if one, two, or three-decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, fore-castle, 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*

I am of opinion this Vessel should be Classed *100 A1, "Steel, Awning deck."*

The amount of the Entry Fee *£ 4 : 0 : 0* is received by me, *19/9/ 1884*

Special *£ 56 : 16 : 0*

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

(Travelling Expenses, if any, £ ...)

Committee's Minute

Character assigned

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

TUESDAY 23 SEPT 1884

18

100 A1 Steel
1 Dk Steel & Awning Deck
Freeboard 14' 1/2" to 15' 1/2" (Main)
to Awning Deck

Lloyd's Register
Foundation