

IRON SHIP.

(Received at London Office)

MONDAY 5 APRIL 1886

On the *Japan's screw pump Hopper Barge* (without name of yard number 402.)
Survey held at *Kendudijk* Date, First Survey *11 August 1885* Last Survey *3 April 1886*

TONNAGE under Tonnage Deck <i>311.2</i>	ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.	Master
Ditto of Third, Spar, or Awning Deck <i>21.8</i>	Half Breadth (moulded) <i>14.1</i>	Built at <i>Kendudijk</i>
Ditto of Poop, or Raised Qr. Dk. <i>21.8</i>	Depth from upper part of Keel to top of Upper Deck Beams <i>11.45</i>	When built <i>1885</i> Launched <i>10 Feb 1886</i>
Ditto of Houses on Deck <i>21.8</i>	Girth of Half Midship Frame (as per Rule) <i>22</i>	By whom built <i>J. & K. Smith</i>
Ditto of Forecastle <i>21.8</i>	1st Number <i>47-35</i>	Owners <i>C. Illius</i>
Gross Tonnage <i>344</i>	1st Number, if a 3-Decked Vessel .. deduct 7 feet	Residence <i>Yokohama</i>
Less Crew Space <i>17.2</i>	Length <i>130</i>	Port belonging to <i>Japan</i>
Less Engine Room <i>94.2</i>	2nd Number <i>6155</i>	Destined Voyage <i>While Building</i>
Register Tonnage (as cut on Beam) <i>232.6</i>	Proportions— Breadths to Length .. <i>11 1/2</i>	If Surveyed while Building, Afloat, or in Dry Dock.
	Depths to Length— Upper Deck to Keel .. <i>11 1/2</i>	
	Main Deck ditto .. <i>11 1/2</i>	

LENGTH	BREADTH	DEPTH	Power of Engines	No. of Decks with flat laid	No. of Tiers of Beams
on deck as per Rule <i>130</i>	Moulded <i>20 1/2</i>	top of Floors to Upper Deck Beams <i>9 9</i> Do. do. Main Deck Beams <i>9 9</i>			
Dimensions of Ship per Register, length, breadth, depth, moulded depth <i>130</i>					
KEEL , depth and thickness <i>1/2</i> inch	Inches in Ship <i>20 x 9 1/2</i>	Inches per Rule	Flat Keel Plates, breadth and thickness .. <i>20 9</i>	Inches in Ship <i>20</i>	Inches per Rule <i>9</i>
STEM , moulding and thickness .. <i>6 x 1 1/2</i>			PLATES in Garboard Strakes, br'dth & thickness .. <i>2 1/2</i>	Inches in Ship <i>2 1/2</i>	Inches per Rule <i>1 1/2</i>
STERN-POST for Rudder do. do. <i>6 x 2 1/4</i>			From Garboard to upper part of Bilges .. <i>2 1/2</i>	Inches in Ship <i>2 1/2</i>	Inches per Rule <i>1 1/2</i>
for Propeller .. <i>6 x 2 1/4</i>			Of d'bling at Bilge, or increased thickness, and length applied <i>1 1/2</i>	Inches in Ship <i>1 1/2</i>	Inches per Rule <i>1 1/2</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft <i>19 1/4 x 2 1/2</i>			From up. prt of Bilge to lr. edge of Sh'rstrake .. <i>1 1/2</i>	Inches in Ship <i>1 1/2</i>	Inches per Rule <i>1 1/2</i>
FRAMES , Angle Iron, for 1/2 length amidships .. <i>3 1/2 3 6</i>			Main Sheerstrake, breadth and thickness .. <i>3 1/2</i>	Inches in Ship <i>3 1/2</i>	Inches per Rule <i>1 1/2</i>
Do. for 1/2 at each end .. <i>3 3 6</i>			Of d'bling at Sh'rstk. & lng. applied		
REVERSED FRAMES , Angle Iron .. <i>3 3 6</i>			From M'n. to Up. or Spar Dk. Sh'rstrake .. <i>3 1/2</i>	Inches in Ship <i>3 1/2</i>	Inches per Rule <i>1 1/2</i>
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships .. <i>10 6</i>			Up. or Spar Dk Sh'rstrake, br'dth & thick'ns .. <i>3 1/2</i>	Inches in Ship <i>3 1/2</i>	Inches per Rule <i>1 1/2</i>
thickness at the ends of vessel .. <i>30 6</i>			Butt Straps to outside plating, breadth & thickness <i>9 1/4 14 1/4</i>	Inches in Ship <i>9 1/4</i>	Inches per Rule <i>14 1/4</i>
depth at 1/2 the half-bdth. as per Rule .. <i>30 6</i>			Lengths of Plating <i>13 feet</i>		
height extended at the Bilges .. <i>30 6</i>			Shifts of Plating, and Stringers <i>two spaces of frames</i>		
BEAMS , Upper, Spar, or Awning Deck <i>5 2 1/2 5</i>			Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness .. <i>46 5</i>	Inches in Ship <i>46</i>	Inches per Rule <i>5</i>
single or d'ble Ang. Iron, Plate or Tee Bulb Iron			Angle Iron on ditto .. <i>3 x 3 x 6</i>		
single or double Angle Iron on Upper edge			Tie Plates fore and aft, outside Hatchways		
Average space .. <i>2 1/2</i>			Diagonal Tie Plates on Beams No. of Pairs		
BEAMS , Main, or Middle Deck <i>4 2 6</i>			Flat of Up., Spar, or Awning Dk. .. <i>5</i>		
single or d'ble Ang. Iron, Plate or Tee Bulb Iron			How fastened to Beams <i>screw bolts</i>		
single or double Angle Iron, on Upper Edge			Stringer Plate on ends of Main or Middle Deck		
Average space .. <i>2 1/2</i>			Beams, breadth and thickness .. <i>24 6</i>	Inches in Ship <i>24</i>	Inches per Rule <i>6</i>
BEAMS , Lower Deck <i>5 2 1/2 5</i>			Is the Stringer Plate attached to the outside plating? <i>yes</i>		
single or d'ble Ang. Iron, Plate or Tee Bulb Iron			Angle Irons on ditto, No. .. <i>3 x 3 x 6</i>		
single or double Angle Iron on Upper Edge			Tie Plates, outside Hatchways .. <i>10 6</i>	Inches in Ship <i>10</i>	Inches per Rule <i>6</i>
Average space .. <i>2 1/2</i>			Diagonal Tie Plates on Beams, No. of pairs		
BEAMS , Hold, or Orlop <i>2 1/2 1 1/4 6</i>			Flat of Middle Deck* do. Four dor. After deck <i>5 x 3 feet fine</i>		
single or d'ble Ang. Iron, Plate or Tee Bulb Iron			How fastened to Beams <i>screw bolts</i>		
single or double Angle Iron on Upper Edge			Stringer Plates on ends of Lower Deck, Hold or Orlop Beams .. <i>3</i>		
Average space .. <i>2 1/2</i>			Is the Stringer Plate attached to the outside plating?		
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates .. <i>10 6</i>			Angle Irons on ditto, No. .. <i>3 x 3 x 6</i>		
Rider Plate .. <i>6 1/2 6</i>			Stringer or Tie Plates, outside Hatchways		
Bulb Plate to Intercoastal Keelson .. <i>3 3 6</i>			Flat of Lower Deck* in Orlop space & Cabin <i>3</i>		
Angle Irons .. <i>3 3 6</i>			Ceiling betwixt Decks, thickness and material ..		
Double Angle Iron Side Keelson .. <i>3 3 6</i>			in hold do. do. ..		
Side Intercoastal Plate .. <i>3 3 6</i>			Main piece of Rudder, diameter at head .. <i>4</i>		
do. Angle Irons .. <i>3 3 6</i>			do. at heel .. <i>3</i>		
Attached to outside plating with angle iron			Can the Rudder be unshipped afloat?		
KEELSONS Angle Irons .. <i>3 3 6</i>			Bulkheads No. 1 No. per Rule <i>5 x 4</i>		
do. Bulb Iron .. <i>3 3 6</i>			Thickness of ..		
do. Intercoastal plates riveted to plating for length)			Height up to deck ..		
KEEL STRINGER Angle Irons .. <i>3 3 6</i>			How secured to sides of ship <i>between two frames</i>		
Intercoastal plates riveted to plating for length)			Size of Vertical Angle Irons <i>3 1/2 x 3 1/2</i> and distance apart <i>30</i> ins.		
DE STRINGER Angle Irons .. <i>3 3 6</i>			Are the outside Plates doubled two spaces of Frames in length? <i>yes</i>		
FRAMES extend in one length from <i>middle line</i> to <i>gunwale</i>			Riveted through plates with <i>3/4</i> in. Rivets, about <i>4 1/2</i> apart.		
REVERSED ANGLE IRONS on floors and frames extend <i>across</i> middle line to <i>two feet above Bilge</i> and to <i>alternately</i>					
KEELSONS . Are the various lengths of Plates and Angle Irons properly connected? <i>yes</i> And butts properly shifted? <i>yes</i>					
PLATING . Garboard, double riveted to Keel, with rivets <i>3/4</i> in. diameter, averaging <i>3</i> ins. from centre to centre.					
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets <i>3/4</i> in. diameter, averaging <i>2 1/2</i> ins. from centre to centre.					
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets <i>3/4</i> in. diameter averaging <i>3</i> ins. from centre to centre.					
Butts of Strakes at Bilge for <i>whole</i> length, <i>double</i> riveted with Butt Straps <i>1/2</i> thicker than the plates they connect.					
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets <i>3/4</i> in. diameter, averaging <i>2 1/2</i> ins. from cr. to cr.					
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets <i>3/4</i> in. diameter, averaging <i>3</i> ins. from cr. to cr.					
Edges of Main Sheerstrake, double or single riveted.					
Butts of Main Sheerstrake, treble riveted for length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.					
Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.					
Breadth of laps of plating in double riveting <i>4 1/2</i> Breadth of laps of plating in single riveting <i>2 1/2</i>					
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <i>yes</i> No. of Breasthooks, <i>3</i> Crutches, <i>2</i>					
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <i>good</i>					
Manufacturer's name or trade mark, <i>Crossett & Co. & Co. & Co.</i>					
The above is a correct description.					
Builder's Signature, <i>J. & K. Smith</i> Surveyor's Signature, <i>W. W. W.</i>					

Form No. 1 for Iron Ships—3000—16

Workmanship. Are the butts of plating planed or otherwise fitted? *Chiselled*
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? *no*

Masts, Bowsprit, Yards, &c., are *pitch pine* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantling
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 Material, and if stamped with Maker's name.
State also Length and Diameter of Lower Masts and Bowsprit *Mast 30 ft 6 inches and in diameter 9*

NUMBER & LETTER for EQUIPMENT		CABLES, &c.		Fathoms	Inches	Test per Certificate	Inches per Rule	Machine when Tested and Superintendant also Number of Certificate	ANCHORS. N°.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine when Tested and Superintendant also Number of Certificate
SAILS.		Chain		90	1"	15.0.0.0			Bower Anchors	2093	8.1.9	10.7.2.9	
Fore Sails,		Iron Stream Chain		90	1"	15.0.0.0			Anchors	2093	7.3.25	10.2.2.9	
Fore Top Sails,		or Steel Wire		60	2 1/16	7.10.0.0			Stream Anchor	2093	5.2.19	8.0.2.14	
Fore Topmast Stay Sails,		or Hempen Strm		60	7/16	3.15.0.0			Kedge	2093	4.3.10	7.7.2.0	
Main Sails,		Cable		120	6"	4.10.0.0			2nd Kedge	2093	1.0.20	4.10.0.0	
Main Top Sails, and		Towline, Hemp.		120	3	2.5.0.0							
		or Steel Wire											
		Hawser											
		Warp											
		quality											

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *one* Long Boat and
The Windlass is *Clarke, Chapman & Co.* Capstan *and* Rudder *good* Pumps *3*

Engine Room Skylights. How constructed? *square 6 ft 8 in x 5 1/2 ft* How secured in ordinary weather? *with Bars*
What arrangements for deadlights in bad weather? *with bars*

Coal Bunker Openings. How constructed? *round* How are lids secured? *bars (key)* Height above deck? *equal*

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

Cargo Hatchways. How formed? *square*

State size Main Hatch *15 ft 6 in* Forehatch *Quarterhatch*

If of extraordinary size, state how framed and secured? *with iron web plate beams 24" secured by bracket bars*

What arrangement for shifting beams? *to air tanks on both sides see sketch*

Hatches, If strong and efficient? *no hatches it is only for sand or mud*

Order for Special Survey No.	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
Date		2nd. On the plating during the process of riveting
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid....
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..
No. in builder's yard.		5th. After the ship was launched and equipped

State dates of letters respecting this case

General Remarks (State quality of workmanship, &c.) *The workmanship is very well done*

This screw pump hopper Barge or Dredge is built for the purpose of making some of the Harbours in Japan deep. In each air tank she has three ventilation bulkheads. And iron heavy web beams in the Main hatch 24 in see further the ed.

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 sheet.)

How are the surfaces preserved from oxidation? Inside *by paint* Outside *by paint*

I am of opinion this Vessel should be Classed *A1*

The amount of the Entry Fee£ 2 : : : is received by me, }
Special£ 17 : : : 18 }

(To be sent as per margin). Certificate ... : : :
(Travelling Expenses, if any, £ : : :)

Committee's Minute *TUESDAY 6 APRIL 1886*

Character assigned *1. The vessel is a screw pump hopper barge recommended.*

REI
O. 1183
No. in Survey held at
g. Book.
on the
ster
gives made at
iters made at
istered Horse Power 5
GINES, &c.—
cription of Engines
meter of Cylinders 18"
meter of Screw shaft 4"
meter of screw 7 ft
of Feed pumps 2
of Bilge pumps 2
ere do they pump from
of Donkey Engines
forward
all the bilge suction pipes fitted
of bilge injections
are the pumps worked
all connections with the sea dis
they fixed sufficiently high on the
they each fitted with a discharge
t pipes are carried through the
all pipes, cocks, valves, and pu
the pipes, cocks, and valves arr
n were stern tube, propeller, sc
e screw shaft tunnel scartight
LERS, &c.—
ber of Boilers two
making Pressure 90 lbs
description of superheating apparatu
each boiler be worked separately
of square feet of fire grate surf
of each valve 16 in
hey fitted with easing gear
h of boilers 10² descri
eter of rivet holes 1"
ntage of strength of longitudinal
of compensating rings 5
le diameter 2 7/8 length, top
est length between rings
of stays to ditto, sides 9"
les 100 Diameter of stays at
of stays to ditto 11 x
allest part two
st pitch of stays 10"
tes, front 5 1/4
ter of Superheater or Steam chest
of rivets 2 1/8 working press
ee between rings working
ng. stays 2"

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