

REPORT ON MACHINERY.

Port of *Sunderland*

Received at London Office

SAT. APR 27 1901

No. in Survey held at *Sunderland*
Reg. Book.Date, first Survey *29th Nov 1900* Last Survey *19th April 1901*(Number of Visits *20*)on the *Screw Steamer "Skeaton" now "Ras Bera"*Tons *Gross 3836.8*
*Net 2499.*Master *Jos. Chaublain* Built at *Sunderland*By whom built *J. Blumer & Co.*When built *1901*Engines made at *Sunderland*By whom made *John Dickinson & Sons Ltd*when made *1901*Boilers made at *Sunderland*By whom made *John Dickinson & Sons Ltd*when made *1901*Registered Horse Power *350* Owners *Ras Co Ltd*Port belonging to *London*Nom. Horse Power as per Section 28 *350*Is Refrigerating Machinery fitted *No*Is Electric Light fitted *No*ENGINES, &c.—Description of Engines *Triple Expansion*No. of Cylinders *3*No. of Cranks *3*Dia. of Cylinders *25-42-68* Length of Stroke *48* Revs. per minute *70* Dia. of Screw shaft *as per rule 13.0 13.5*
as fitted 13 1/2 Lgth. of stern bush *4'-6"*Dia. of Tunnel shaft *as per rule 11.9 12.1* Dia. of Crank shaft journals *as per rule 12.5 12.7* Dia. of Crank pin *13* Size of Crank webs *Patent* Dia. of thrust shaft under collars *13"* Dia. of screw *17'-6"* Pitch of screw *17'-9"* No. of blades *4* State whether moveable *No* Total surface *86 1/2 sq ft*No. of Feed pumps *2* Diameter of ditto *4"* Stroke *24"* Can one be overhauled while the other is at work *Yes*No. of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Yes*No. of Donkey Engines *2* Sizes of Pumps *Feed 1 x 5 x 6"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *Ballant 8 x 9 x 10"* In Holds, &c. *two of 3 1/2" each hold, fore peak 2 1/2"*No. of bilge injections *1* sizes *4* Connected to condenser, or to circulating pump *C-P* Is a separate donkey suction fitted in Engine room & size *Yes 4"*Are all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine room always accessible *Yes* Are the sluices on Engine room bulkheads always accessible *Yes*Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *both*Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes* Are the discharge pipes above or below the deep water line *above*Are they each fitted with a discharge valve always accessible on the plating of the vessel *Yes* Are the blow off cocks fitted with a spigot and brass covering plate *Yes*What pipes are carried through the bunkers *none* How are they protected *Yes*Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *Yes*When were stern tube, propeller, screw shaft, and all connections examined in dry dock *November* Is the screw shaft tunnel watertight *Yes*Is it fitted with a watertight door *Yes* worked from *top platform*BOILERS, &c.— (Letter for record *S*) Total Heating Surface of Boilers *5400 sq ft* Is forced draft fitted *No*No. and Description of Boilers *2 Single Ended Multitubular* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs*Date of test *1.3.01* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *71 sq ft* No. and Description of safety valves to each boiler *two direct spring* Area of each valve *9.6"* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *18"* Mean dia. of boilers *16'-6"* Length *11'-6"* Material of shell plates *Steel*Thickness *1 1/2"* Range of tensile strength *28/32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *2 Riv Lap* long. seams *J.R. & B. S*Diameter of rivet holes in long. seams *17/16* Pitch of rivets *9 1/16"* Length of plates *1'-9 1/8"*Per centages of strength of longitudinal joint *92%* Working pressure of shell by rules *182 lbs* Size of manhole in shell *16" x 12"*Size of compensating ring *8 7/8" x 1 1/2"* No. and Description of Furnaces in each boiler *4 plain* Material *Steel* Outside diameter *8'-4 1/4"*Length of plain part *top 7'-0" bottom 7'-3"* Thickness of plates *top 3/4" bottom 5/8"* Description of longitudinal joint *Welded* No. of strengthening rings *Yes*Working pressure of furnace by the rules *180 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *1/16"* Back *1/16"* Top *1/16"* Bottom *1/4"*Pitch of stays to ditto: Sides *9 1/2" x 9"* Back *9 1/2" x 9"* Top *9 1/2" x 9 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *181 lbs*Material of stays *Steel* Diameter at smallest part *2.03* Area supported by each stay *90.25 sq in* Working pressure by rules *203 lbs* End plates in steam space:Material *Steel* Thickness *1 1/8" x 3/4"* Pitch of stays *18 3/4"* How are stays secured *Drut & Co.* Working pressure by rules *180 lbs* Material of stays *Steel*Diameter at smallest part *6.7"* Area supported by each stay *357 sq in* Working pressure by rules *191 lbs* Material of Front plates at bottom *Steel*Thickness *7/8"* Material of Lower back plate *Steel* Thickness *3/4"* Greatest pitch of stays *9 1/2" x 9"* Working pressure of plate by rules *227 lbs*Diameter of tubes *3 1/4"* Pitch of tubes *4 1/2"* Material of tube plates *Steel* Thickness: Front *15/16"* Back *7/8"* Mean pitch of stays *9"*Pitch across wide water spaces *1'-1 1/4"* Working pressures by rules *180 lbs* Girders to Chamber tops: Material *Steel* Depth andthickness of girder at centre *8 3/8" x 21 1/2"* Length as per rule *36 13/16"* Distance apart *9 1/2"* Number and pitch of Stays in each *three of 9 1/2"*Working pressure by rules *182 lbs* Superheater or Steam chest; how connected to boiler *have* Can the superheater be shut off and the boiler workedseparately *Yes* Diameter *18"* Length *18"* Thickness of shell plates *1/16"* Material *Steel* Description of longitudinal joint *Welded* Diam. of rivetholes *18"* Pitch of rivets *18"* Working pressure of shell by rules *182 lbs* Diameter of flue *18"* Material of flue plates *Steel* Thickness *1/16"*If stiffened with rings *Yes* Distance between rings *18"* Working pressure by rules *182 lbs* End plates: Thickness *1/16"* How stayed *Yes*Working pressure of end plates *182 lbs* Area of safety valves to superheater *182 lbs* Are they fitted with easing gear *Yes*

DONKEY BOILER— No. *one* Description *Cylindrical multitubular 2 plain furnaces*
 Made at *Stockton* By whom made *Andrew & Co Ltd* When made *27.2.01* Where fixed *on deck*
 Working pressure *80 lb* tested by hydraulic pressure to *160 lb* No. of Certificate *2419* Fire grate area *26 sq ft* Description of safety valves *direct spring*
 No. of safety valves *2* Area of each *80 lb* Pressure to which they are adjusted *80 lb* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *9'-0"* Length *9'-0"* Material of shell plates *steel* Thickness *1/2"* Range of tensile strength *32* Descrip. of riveting long. seams *to Riv lap* Dia. of rivet holes *3/32* Whether punched or drilled *drilled* Pitch of rivets *3 7/16*
 Lap of plating *6"* Per centage of strength of joint Rivets *83* Thickness of shell *over* plates *1/16* Radii of do. *16/2 x 11* No. of Stays to do. *2 floors 6*
 Dia. of stays *1 3/4* effec Diameter of furnace Top *33"* Bottom *L* Length of furnace *6'-6"* Thickness of furnace plates *3/16* Description of joint *lap* Thickness of furnace *over* plates *1/2 to 9/16* Stayed by *1 1/2 x 4 I.S. 8 to 9" pitch* Working pressure of shell by rules *80 lb*
 Working pressure of furnace by rules *80 lb* Diameter of *uptake* *3"* Thickness of *uptake* plates *5/16 13/16* Thickness of *water* tubes *7/16*

SPARE GEAR. State the articles supplied: *two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts Set of coupling bolts & nuts, Spare feed & bilge pump valves, assorted iron bolts & nuts.*

The foregoing is a correct description,
H. Robinson Manufacturer.

Dates { During progress of work in shops - *1900- Nov 29* 1901- *Jan 29, Feb 4, 6, 12, 13, 15, 20, 22* Mar *1, 5, 8, 11, 14, 15, 18, 20.*
 of Survey { During erection on board vessel - *27, 28, Apr 19.*
 while building { Total No. of visits *20.*

Is the approved plan of main boiler forwarded herewith *no*
Duplicate of 542 Engr. of Pennmanor
 " " " donkey " " " *no*

General Remarks (State quality of workmanship, opinions as to class, &c.)

Material of screw shaft *W. Iron* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *no*
 Is the after end of the liner made water tight in the propeller boss *yes* If the liner is in more than one length are the joints burned *✓*
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *✓* If two liners are fitted, is the shaft lapped or protected between the liners *no. Painted only.*

The machinery of this vessel has been constructed under special survey. The material and workmanship good and efficient. The boilers and main steam pipes tested under hydraulic pressure to 360 lb and found sound and efficient in every respect at that pressure. The Engines tried under steam at their working pressure and found satisfactory.

In my opinion this vessel is worthy of the notation
L.M.C. 4:01 to be made in the Register Book.

It is submitted that
 this vessel is eligible for
 THE RECORD, + L.M.C. 4:01.

The amount of Entry Fee. £ *3* : : When applied for, *26.4.01*
 Special £ *37* : *10* : : When received, *30.4.01*
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : :

Committee's Minute

Assigned

FRI. MAY 3 1901

+ L.M.C. 4:01

Leonard Shallcross
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



© 2021

Lloyd's Register
 Foundation