

REPORT ON MACHINERY.

MON. DEC 9 1901

Port of *Sunderland*

Received at London Office

No. in Survey held at *Sunderland* Date, first Survey *29th Jan'y* Last Survey *25th Nov 1901*
Reg. Book. on the *Screw Steamer "Corinthia"* (Number of Visits *31*)

Master *Miller* Built at *Sunderland* By whom built *J. L. Thompson & Sons Ltd* (391) Tons {Gross *3625*
Net *2359* When built *1901*

Engines made at *Sunderland* By whom made *John Dickinson & Sons Ltd* (547) when made *1901*

Boilers made at *Sunderland* By whom made *John Dickinson & Sons Ltd* (548) when made *1901*

Registered Horse Power _____ Owners *International Rice Co. Ltd* Port belonging to *Whitby*

Nom. Horse Power as per Section 28 *306 299* 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 *24 1/2 - 40 - 66* Length of Stroke *45* Revs. per minute *70* Dia. of Screw shaft as per rule *12.8 38* as fitted *13 1/4* Lgth. of stern bush *4'-6"*

Dia. of Tunnel shaft as per rule *11.6 19* as fitted *12 1/2* Dia. of Crank shaft journals as per rule *12.8 11.78* as fitted *13.0* Dia. of Crank pin *13* Size of Crank webs *Patent* Dia. of thrust shaft under collars *13"* Dia. of screw *16'-9"* Pitch of screw *17'-0"* No. of blades *4* State whether moceable *no* Total surface *77 1/2 sq ft*

No. of Feed pumps *2* Diameter of ditto *3 1/2"* Stroke *22 1/2"* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *22 1/2"* Can one be overhauled while the other is at work *Yes*

No. of Donkey Engines *4* Sizes of Pumps *two Watsons, 8 3/4 x 5 x 5 feet* No. and size of Suctions connected to both Bilge and Donkey pumps *See bilge plan Submitted 9.00*

In Engine Room *3 1/2" Centre, 3 1/2" port 3 1/2" starboard* In Holds, &c. *two 3 1/2" to each hold, Port & Starboard*

No. of bilge injections *1* sizes *4"* Connected to condenser, or to circulating pump *CP* 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 *Nov 1901* Is the screw shaft tunnel watertight *Yes*

Is it fitted with a watertight door *Yes* worked from *Top Platform*

BOILERS, &c.— (Letter for record *3*) Total Heating Surface of Boilers *4580 sq ft* Is forced draft fitted *no*

No. and Description of Boilers *3" S. E. Cyl. Multitubular* Working Pressure *160 lb* Tested by hydraulic pressure to *320 lb*

Date of test *20.8.01* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *44 1/2 sq ft* No. and Description of safety valves to each boiler *two, direct spring* Area of each valve *5.95 sq in* Pressure to which they are adjusted. *165 lb* Are they fitted with easing gear *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *5'-0" for Bunkers* Mean dia. of boilers *18'-3"* Length *10'-3"* Material of shell plates *Steel*

Thickness *1"* Range of tensile strength *28-32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *Pair Lap* long. seams *In R. DTS*

Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *7 7/8"* Lap of plates or width of butt straps *16 1/2"*

Per centages of strength of longitudinal joint rivets *96.70* Working pressure of shell by rules *163 lb* Size of manhole in shell *16" x 12"*

Size of compensating ring *8 1/4 x 1"* No. and Description of Furnaces in each boiler *3 plain* Material *Steel* Outside diameter *39"*

Length of plain part top *6'-5"* bottom *7'-1 1/2"* Thickness of plates crown *2 3/4"* bottom *3.2"* Description of longitudinal joint *weld* No. of strengthening rings *None*

Working pressure of furnace by the rules *167 lb* Combustion chamber plates: Material *Steel* Thickness: Sides *1 1/8"* Back *1 1/8"* Top *1 1/8"* Bottom *1"*

Pitch of stays to ditto: Sides *10x10"* Back *10x10"* Top *10x9"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *163 lb*

Material of stays *Steel* Diameter at smallest part *2.03"* Area supported by each stay *100 sq in* Working pressure by rules *160 lb* End plates in steam space:

Material *Steel* Thickness *1 1/2"* Pitch of stays *16x19"* How are stays secured *2.49 lb* Working pressure by rules *163 lb* Material of stays *Steel*

Diameter at smallest part *6.05"* Area supported by each stay *304 sq in* Working pressure by rules *166 lb* Material of Front plates at bottom *Steel*

Thickness *3/4"* Material of Lower back plate *Steel* Thickness *3/4"* Greatest pitch of stays *11 1/2 x 10"* Working pressure of plate by rules *163 lb*

Diameter of tubes *3 1/2"* Pitch of tubes *4 1/2"* Material of tube plates *Steel* Thickness: Front *3/4"* Back *3/4"* Mean pitch of stays *9"*

Pitch across wide water spaces *18 1/2"* Working pressures by rules *222 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *6' x 1" x (2)* Length as per rule *27 9/16"* Distance apart *9"* Number and pitch of Stays in each *2 of 10" pitch*

Working pressure by rules *164 lb* Superheater or Steam chest; how connected to boiler *None* Can the superheater be shut off and the boiler worked separately *Yes*

Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

If used, state whether, and when, our will be used

In a Report also mention the name of the ship



DONKEY BOILER— No. Description *None Fitted*

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam _____ in main boilers can enter the donkey boiler _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

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

The foregoing is a correct description,
J. Parkinson & Sons, Limited. Manufacturer.

Dates { During progress of work in shops - - 1901. - Jan'y 29. 30. Feb 8. 12. 20. Mar 11. 14. 19. 26. Apr 2. 4. 30. May 3. 4. 6. 20. 21. 22. June 3
 { During erection on board vessel - - July 22. 29. Aug 1. 12. 20. Oct 7. 10. 14. 31. Nov 7. 25
 Total No. of visits 31.

Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Yes*

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

Material of screw shaft *Wrot 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 banded *Yes*
 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 *Yes* If two liners are fitted, is the shaft lapped or protected between the liners *two liners. Shaft painted*

The machinery built under Special Survey. The material and workmanship good and efficient. The main boilers and steam pipes tested under hydraulic pressure to 320 lbs per square inch and found sound & efficient in every respect at pressure. The engines tried under steam at their working pressures and found sound & satisfactory. In my opinion this vessel is worthy of the notification R M C. 11. 01 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11. 01

The amount of Entry Fee... £ 3 : :
 Special ... £ 35 : 6 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 7.12.01
 When received, 10/12/01

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

Committee's Minute TUES. 10 DEC 1901
 Assigned + LMC 11, 01



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