

## REPORT ON MACHINERY.

No. 48402.

Port of *Newcastle*

Received at London Office

JAN. 2 MAR 1905

No. in Survey held at *Newcastle*  
Reg. Book.Date, first Survey *Nov. 2nd 01* Last Survey *21st Febry 1905*(Number of Visits *84*)Master *N. Levorius* Built at *Newcastle* By whom built *Palmer's S & C. Co. Ltd.* Tons { Gross *7016*  
Net *4605*  
When built *1903*Engines made at *Newcastle* By whom made *Palmer's S & C. Co. Ltd.* when made *1902 & 3*Boilers made at *do.* By whom made *do.* when made *1902 & 3*Registered Horse Power *564* Owners *Paul Moich* Port belonging to *St. Petersburg*Nom. Horse Power as per Section 28 *564* Is Refrigerating Machinery fitted *no.* Is Electric Light fitted *yes*ENGINES, &c.—Description of Engines *Triple expansion* No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *28" 46" 74"* Length of Stroke *54"* Revs. per minute *70* Dia. of Screw shaft as per rule *15.78* Material of *Steel*  
as fitted *16 3/4* screw shaftIs the screw shaft fitted with a continuous liner the whole length of the stern tube *yes* Is the after end of the liner made water tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *yes* If twoliners are fitted, is the shaft lapped or protected between the liners *—* Length of stern bush *5' 6 3/4"*Dia. of Tunnel shaft as per rule *14.25* Dia. of Crank shaft journals as per rule *14.94* Dia. of Crank pin *15 1/2"* Size of Crank webs *22 1/2"* Dia. of thrust shaft underas fitted *none* Dia. of screw *19 1/2"* Pitch of screw *19 1/2"* No. of blades *4* State whether moveable *yes* Total surface *110 sq*No. of Feed pumps *2* Diameter of ditto *5 1/2"* Stroke *30"* Can one be overhauled while the other is at work *yes*No. of Bilge pumps *2* Diameter of ditto *6"* Stroke *30"* Can one be overhauled while the other is at work *yes*No. of Donkey Engines *4* Sizes of Pumps *7 1/2" x 7 1/2" x 6 1/2" 10" x 10" x 5 1/2" 3" x 3" x 3"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *3 of 3 1/2" + 1 of 3 1/2" Stoke hold* In Holds, &c. *Crossbunkers 1 of 3 1/2" Fore*Cargo hold *1 of 5" connected to 6" x 8 1/2" x 6 pump.*No. of bilge injections *1* sizes *7"* Connected to condenser, or to circulating pump *C.P.* Is a separate donkey suction fitted in Engine room & size *yes 5"*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 *none*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 *—*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 *Newcastle* Is the screw shaft tunnel watertight *none*Is it fitted with a watertight door *—* worked from *—*BOILERS, &c.— (Letter for record *S*) Total Heating Surface of Boilers *9950 sq* Is forced draft fitted *no*No. and Description of Boilers *4 Multitubular & ended.* Working Pressure *180 lb* Tested by hydraulic pressure to *360 lb*Date of test *14-1-03* Can each boiler be worked separately *yes* Area of fire grate in each boiler *66 1/2 sq* No. and Description of safety valves toeach boiler *2 Spring* Area of each valve *4.07 sq* Pressure to which they are adjusted *185 lb* Are they fitted with easing gear *yes*Smallest distance between boilers or uptakes and bunkers or woodwork *18"* Mean dia. of boilers *16.3"* Length *11 1/2'* Material of shell plates *S.*Thickness *1 1/2"* Range of tensile strength *29* Are they welded or flanged *ends* Descrip. of riveting: cir. seams *2 Rivet* long. seams *DRS Full Rivet*Diameter of rivet holes in long. seams *1 1/2" x 3/2"* Pitch of rivets *9 1/4"* Lap of plates or width of butt straps *20 1/2"*Per centages of strength of longitudinal joint rivets *86.75* plate *85.75* Working pressure of shell by rules *188 lb* Size of manhole in shell *8" x 12"*Size of compensating ring *flanged* No. and Description of Furnaces in each boiler *3 Monitors* Material *S.* Outside diameter *4' 1"*Length of plain part top *—* bottom *—* Thickness of plates crown *3/16"* Description of longitudinal joint *welded* No. of strengthening rings *—*Working pressure of furnace by the rules *23 1/2* Combustion chamber plates: Material *S* Thickness: Sides *7/8"* Back *7/8"* Top *7/8"* Bottom *7/8"*Pitch of stays to ditto: Sides *8 1/4" x 8 1/4"* Back *8 1/2" x 8 1/2"* Top *8 1/2" x 8 1/2"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *18 1/2*Material of stays *S.* Diameter at smallest part *1.5"* Area supported by each stay *72.25* Working pressure by rules *222 1/2* End plates in steam space:Material *S.* Thickness *1 1/2"* Pitch of stays *16 1/2" x 19 1/2"* How are stays secured *2 nuts* Working pressure by rules *195 1/2* Material of stays *S.*Diameter at smallest part *2.84* Area supported by each stay *315* Working pressure by rules *194* Material of Front plates at bottom *S.*Thickness *3/2"* Material of Lower back plate *S.* Thickness *1"* Greatest pitch of stays *15"* Working pressure of plate by rules *245 1/2*Diameter of tubes *3 1/4"* Pitch of tubes *4 1/2" x 4 1/2"* Material of tube plates *S.* Thickness: Front *2 1/32"* Back *2 1/32"* Mean pitch of stays *11 1/4"*Pitch across wide water spaces *15 1/2"* Working pressures by rules *205 1/2* Girders to Chamber tops: Material *S.* Depth andthickness of girder at centre *9" x 2"* Length as per rule *2' 11 1/2"* Distance apart *8 1/2"* Number and pitch of Stays in each *3 of 8 1/4"*Working pressure by rules *213* Superheater or Steam chest; how connected to boiler *none* Can the superheater be shut off and the boiler workedparately *—* Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivetholes *—* Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*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 *—*

W305-0309



SPARE GEAR. State the articles supplied:—  $\frac{1}{3}$  Crank Shaft, propeller Shaft, 1 Set connecting rod bolts & nuts, 1 Set main bearing bolts & nuts, 1 Set coupling bolts & nuts, 1 Set feed & bilge pump valves & nuts bolts & assorted iron

The foregoing is a correct description,  
*Palmer's Superintending & Trust Co. Ltd.*  
 Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. Machinery and boilers built under Special Survey. Materials and workmanship good & efficient. Engines and boilers examined under full steam & found in satisfactory working condition

This vessel was launched on February 2<sup>d</sup> 1903 & in my opinion is now eligible for the record of L. M. C. 8/03 in the Register Book.

It is submitted that  
this vessel is eligible for  
THE RECORD F.L.M.C. 8.03. ELEC. LIGHT

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

FRI 3 MAR 1905

*Assigned*

+ Lm 6803  
elec. light

© 2020

Lloyd's Register  
Foundation