

REPORT ON MACHINERY.

Port of *Newcastle-on-Tyne*

Received at London Office

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JUN 1903

Survey held at *Newcastle*Date, first Survey *16 October 1902* Last Survey *22 May 1903*k. Sup. on the *S/S "Canopus"*(Number of Visits *22*)Tons Gross *1336.90*
Net *834.58*G. A. Jubb Built at *Newcastle*By whom built *C. I. Swan & Co. Ltd.* When built *1903*made at *Newcastle*By whom made *Walker & Shipwage Eng. Co.* when made *1903*made at *Newcastle*By whom made *Walker & Shipwage Eng. Co.* when made *1903*

ed Horse Power

Owners *The Westport Coal Co. Ltd.* Port belonging to *Dunedin*Horse Power as per Section 28 *222*Is Refrigerating Machinery fitted *No*Is Electric Light fitted *No*

ES, &c.—Description of Engines *Triple* No. of Cylinders *3* No. of Cranks *3*
 Cylinders *21 35 56* Length of Stroke *39* Revs. per minute *70* Dia. of Screw shaft as per rule *11.22* Lgth. of stern bush *48*
 as per rule *10.22 10.15* as per rule *10.5 10.65* as fitted *11.3*
 Tunnel shaft as fitted *10.24* Dia. of Crank shaft journals as per rule *10.24* Dia. of Crank pin *11* Size of Crank webs *2 1/2 x 7 1/2* Dia. of thrust shaft under
 as fitted *10.24* Dia. of screw *13-3* Pitch of screw *17-6* No. of blades *4* State whether moveable *No* Total surface *56.9*

Feed pumps *2* Diameter of ditto *3* Stroke *22* Can one be overhauled while the other is at work *No*Bilge pumps *2* Diameter of ditto *3 1/2* Stroke *22* Can one be overhauled while the other is at work *No*Donkey Engines *2* Sizes of Pumps *7 1/2 x 5 1/2 x 15 + 9 x 10 1/4 x 10* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Holds, &c. *Two in No 2 hold + two in No 4 hold*Bilge injections *1* sizes *5 1/2* Connected to condenser or to circulating pump *No* Is a separate donkey suction fitted in Engine room & size *No 2 1/2*the bilge suction pipes fitted with roses *No* Are the roses in Engine room always accessible *No* Are the shutters on Engine room bulkheads always accessible *No*connections with the sea direct on the skin of the ship *No* Are they Valves or Cocks *Both*fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *No* Are the discharge pipes above or below the deep water line *Below*each fitted with a discharge valve always accessible on the plating of the vessel *No* Are the blow off cocks fitted with a spigot and brass covering plate *No*pipes are carried through the bunkers *No* How are they protected *✓*pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *No*the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *No*were stern tube, propeller, screw shaft, and all connections examined in dry dock *No* Is the screw shaft tunnel watertight *No*fitted with a watertight door *No* worked from *Upper Platform. Engines fitted aft.*ERS, &c.— (Letter for record *S*) Total Heating Surface of Boilers *37409* Is forced draft fitted *No*nd Description of Boilers *Two simple Endless* Working Pressure *160 lbs* Tested by hydraulic pressure to *320 lbs*of test *20/12/02* Can each boiler be worked separately *No* Area of fire grate in each boiler *61 1/2* No. and Description of safety valves toboiler *Two spring valves* Area of each valve *7.07* Pressure to which they are adjusted *163 lbs* Are they fitted with easing gear *No*at distance between boilers or uptakes and bunkers or woodwork *4 1/2* Mean dia. of boilers *14-0* Length *10-6* Material of shell plates *S*ness *32* Range of tensile strength *29-32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *Lap 1/4"* long. seams *1.5" to riv.*ter of rivet holes in long. seams *1 3/16* Pitch of rivets *8 1/8* Lap of plates or width of butt straps *17 1/16*ntages of strength of longitudinal joint rivets *92* Working pressure of shell by rules *177* Size of manhole in shell *12 x 16*compensating ring *No* No. and Description of Furnaces in each boiler *3 Corrugated* Material *S* Outside diameter *45*h of plain part top Thickness of plates crown *3 3/4* Description of longitudinal joint *Weld* No. of strengthening rings *2*ing pressure of furnace by the rules *160* Combustion chamber plates: Material *S* Thickness: Sides *2 1/2* Back *4/16* Top *2 1/2* Bottom *13/16*of stays to ditto: Sides *9 1/2 x 9 1/2* Back *9 1/2 x 10* Top *9 1/2 x 9 1/2* If stays are fitted with nuts or riveted heads *No* Working pressure by rules *169*rial of stays *S* Diameter at smallest part *1 5/8* Area supported by each stay *95* Working pressure by rules *192* End plates in steam space:rial *S* Thickness *1 3/8* Pitch of stays *19 1/2 x 19 1/2* How are stays secured *By nuts* Working pressure by rules *224* Material of stays *S*at smallest part *7.24* Area supported by each stay *376* Working pressure by rules *191* Material of Front plates at bottom *S*ness *1* Material of Lower back plate *S* Thickness *2 3/8* Greatest pitch of stays *14 1/2* Working pressure of plate by rules *170*eter of tubes *3 1/4* Pitch of tubes *4 1/2 x 4 1/2* Material of tube plates *S* Thickness: Front *1 1/8* Back *2 1/8* Mean pitch of stays *9*across wide water spaces *13 1/2* Working pressures by rules *210* Girders to Chamber tops: Material *S* Depth andness of girder at centre *8 1/2 x 1 1/2* Length as per rule *3 1/2* Distance apart *9 1/2* Number and pitch of Stays in each *2, 9 1/2*king pressure by rules *175* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler workedately *✓* Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivet*✓* Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*fitted with rings *✓* Distance between rings *—* Working pressure by rules *—* End plates: Thickness *—* How stayed *—*king pressure of end plates *—* Area of safety valves to superheater *—* Are they fitted with easing gear *—*

DONKEY BOILER— No. *one* Description *Multitubular*
 Made at *Whitchurch* By whom made *Clark Chapman & Co* When made *17/3/03* Where fixed *Whitchurch*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1528* Fire grate area *255* Description of safety valves *spring*
 No. of safety valves *2* Area of each *5.42* Pressure to which they are adjusted *80 lbs* If fitted with easing gear *no* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *9-6* Length *10-0* Material of shell plates *S* Thickness *3/16* Range of tensile strength *27-32* Descrip. of riveting long-seams *Lap with* Dia. of rivet holes *7/8* Whether punched or drilled *not* Pitch of rivets *3 1/2*
 Lap of plating *1 1/2* Per centage of strength of joint *81.1* Rivets *78.0* Thickness of shell plates *4/16* Radius of do. *✓* No. of Stays to do. *10*
 Dia. of stays *1 1/2* Diameter of furnace *2-11 1/8* Bottom *✓* Length of furnace *6-6* Thickness of furnace plates *5/8* Description of joint *Lap with* Thickness of *2.00* plates *1/2* Stayed by *1 3/8 stay 9 x 8 1/2 pitch* Working pressure of shell by rules *96*
 Working pressure of furnace by rules *90* Diameter of *update* *3 1/4* Thickness of *update* plates *1/4* Thickness of *update* tubes *104.9*

SPARE GEAR. State the articles supplied:— *Two lip end + two bottom end cm. 20d bolts + nuts for main bearing bolts, one set coupling bolts, one set feed + tiller pump valves, assorted bolts + nuts, 2mm of various sizes, one propeller shaft 3/8 length crank shaft.*

The foregoing is a correct description,

Manufacturer.

Dates { During progress of work in shops— 1902 Oct. 16, 23, 27. Nov. 7, 13, 25. Dec. 3, 5, 18, 20. 1903 Jan. 19, 22. Feb. 14, 16.
 of Survey { During erection on board vessel— Mar. 3, 17, 23, 24, 27. May 14, 19, 22.
 while building { Total No. of visits *22*

Is the approved plan of main boiler forwarded herewith *yes*

“ “ “ donkey “ “ “ *no*

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

Material of screw shaft *Iron* Is 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 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 *—*

The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel ship in my opinion to have record of L.M.C. 5.03.

It is submitted that this vessel is eligible for THE RECORD—L.M.C. 5:03 Elec. Light.

L.M.

ptd 5-6-03

The amount of Entry Fee. £ *2* : : :
 Special £ *31* 2 : : :
 Donkey Boiler Fee £ . : : :
 Travelling Expenses (if any) £ . : : :
 When applied for, *26 May 1903*
 When received, *3/6/1903*

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

Committee's Minute

Assigned

FRI. 12 JUN 1903

+ L.M.C. 5.03
elec light

MACHINERY CERTIFICATE WRITTEN.



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Lloyd's Register Foundation

Newcastle-on-Tyne.

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