

## REPORT ON MACHINERY.

No. 24334  
THUR. 3 FEB 1910.

Date of writing Report 19 When handed in at Local Office 2.2.10 Port of Sunderland.  
 No. in Survey held at Sunderland. Date, First Survey 25<sup>th</sup> July '09 Last Survey 26 January 1910  
 Reg. Book. on the S.S. "Collingham" (Number of Visits)  
 Master Built at Sunderland. By whom built J. L. Thompson & Son Ltd  
 Engines made at Sunderland. By whom made J. Dickinson & Sons Ltd  
 Boilers made at " By whom made " when made 1909-10  
 Registered Horse Power Owners Harris Dixon Ltd when made "  
 Nom. Horse Power as per Section 28 350 Is Refrigerating Machinery fitted for cargo purposes Port belonging to London.  
 Is Electric Light fitted -

## ENGINES, &amp;c.—Description of Engines

Dia. of Cylinders 25. 42" 68" Length of Stroke 48. Revs. per minute 70 No. of Cylinders 3 No. of Cranks 3  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes. Dia. of Screw shaft as per rule 14.34 Material of screw shaft 2  
 in the propeller boss Yes. If the liner is in more than one length are the joints burned - Is the after end of the liner made water tight  
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If the liner does not fit tightly at the part  
 liners are fitted, is the shaft lapped or protected between the liners If two  
 Dia. of Tunnel shaft as per rule 13.43 Dia. of Crank shaft journals as per rule 13.34 Length of stern bush 5 feet  
 as fitted 12.45 as fitted 13.34 Dia. of Crank pin 13 3/8 Size of Crank webs Patent Dia. of thrust shaft under  
 collars 13 3/8 Dia. of screw 17 6 Pitch of Screw 16 ft. No. of Blades 4 State whether moveable f Total surface 862 f  
 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 8" 10" 10" 7 1/2" 5" 4" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 2 of 3 1/2 5 1/2 2 of 3 1/2 In Holds, &c. 2 of 3 1/2 in each  
 No. of Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump 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  
 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  
 Dates of examination of completion of fitting of Sea Connections 9.12.09 of Stern Tube 9.12.09. Screw shaft and Propeller 9.12.09  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

## BOILERS, &amp;c.—(Letter for record)

Is it fitted with a watertight door Yes worked from top platform  
 Manufacturers of Steel J. Spencer & Sons Ltd  
 Total Heating Surface of Boilers 5415 f Is Forced Draft fitted No. No. and Description of Boilers 2 S.C.  
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 11.12.09 No. of Certificate 2499.  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 68 f No. and Description of Safety Valves to  
 each boiler 2 Spring Area of each valve 8.3 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 2 feet Mean dia. of boilers 16.6" Length 11.6 Material of shell plates 8  
 Thickness 1/2 Range of tensile strength 282-32 Are the shell plates welded or flanged F. 78. Descrip. of riveting: cir. seams 81 lap  
 long. seams 2 butts Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 9 5/16 Lap of plates or width of butt straps 20 1/2  
 Per centages of strength of longitudinal joint rivets 92.6 Working pressure of shell by rules 181 lbs Size of manhole in shell 16" x 12"  
 plate 85.2 No. and Description of Furnaces in each boiler 3 Patent A Material 8. Outside diameter 4' 4"  
 Size of compensating ring 8 3/4 x 1 1/2 No. and Description of Furnaces in each boiler 3 Patent A Material 8. Outside diameter 4' 4"  
 Length of plain part top Thickness of plates crown 1 3/8 Description of longitudinal joint welded. No. of strengthening rings  
 bottom Working pressure of furnace by the rules 181. Combustion chamber plates: Material 8 Thickness: Sides 1/2 Back 1/2 Top 1/2 Bottom 1/2  
 Pitch of stays to ditto: Sides 10 x 9 Back 9 3/4 x 9 1/4 Top 10 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181  
 Material of stays 8 Area at smallest part 2.03 Area supported by each stay 90 Working pressure by rules 204. End plates in steam space:  
 Material 8 Thickness 1 9/16 Pitch of stays 22 1/2 x 19 1/2 How are stays secured d nut Working pressure by rules 181 Material of stays 8  
 Area at smallest part 4.8 Area supported by each stay 44 1/2 Working pressure by rules 183 Material of Front plates at bottom 8  
 Thickness 7/8 Material of Lower back plate 8 Thickness 5/8 Greatest pitch of stays 13 1/2 Working pressure of plate by rules 182.  
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates 8 Thickness: Front 7/8 Back 7/8 Mean pitch of stays 9  
 Pitch across wide water spaces 13 1/2 Working pressures by rules 287. Girders to Chamber tops: Material 8 Depth and  
 thickness of girder at centre 8 1/2 x 2 1/2 Length as per rule 34 1/2 Distance apart 10 Number and pitch of stays in each 3 @ 9"  
 Working pressure by rules 184 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
 separately 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



## Manufacturers of Steel

SPARE GEAR. State the articles supplied:— 1 set connecting rod bolts & nuts, two main bearing bolts & nuts, 1 set coupling bolts & nuts, 1 set feed & bilge pump valves, propeller, nuts & bolts, are of Iron, assorted.

John Dickinson & Sons, Limited.

*Manufacturer.*

Dates of Examination of principal parts—Cylinders 27.9.09 Slides 18-11-09 Covers 23.9.09 Pistons 6.12.09 Rods 6.12.09

Dates of Examination of principal parts—Cylinders 12.11.09 Slides 18.11.09 Covers 23.9.09 Pistons 6.12.09 Rods 6.12.09  
Connecting rods 6.12.09. Crank shaft 1.12.09. Thrust shaft 1.12.09. Tunnel shafts 1.12.09. Screw shaft 1.12.09. Propeller 29.11.09  
Stern tube 29.11.09. Steam pipes tested 24.12.09. Engine and boiler seatings 9.12.09. Engines holding down bolts 29.12.09.  
Completion of pumping arrangements 10.1.10. Boilers fixed 29.12.09. Engines tried under steam 10.1.10  
Main boiler safety valves adjusted 10.1.10 Thickness of adjusting washers PBF  $\frac{3}{8}$  A  $\frac{1}{2}$ : SBF  $\frac{3}{8}$  A  $\frac{3}{4}$  HK8-59  
Material of Crank shaft S Identification Mark on Do. 1428-9 HK R PA 409 692 MK. Material of Thrust shaft S Identification Mark on Do. 1504-5  
Material of Tunnel shafts Steel. AS 9.09. 4688 KH. AS. KH. Identification Marks on Do. 4699 4700 Material of Screw shafts J. Identification Marks on Do. 3866<sup>A</sup> WC  
Material of Steam Pipes Copper. Test pressure 360 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c. Machinery and boilers built under Special Survey. Materials and workmanship good. Engines tried under steam & found satisfactory. It is submitted that this vessel is eligible for the record of SLMC 10.

It is submitted that  
this vessel is eligible for  
THE RECORD. +LMC 110

Handwritten signature: H. C. D.

4.2.10

The amount of Entry Fee .. £	3 :	:	When applied for,
Special .. .. £	37.10	:	3.3.19
Donkey Boiler Fee .. .. £	:	:	When received,
Travelling Expenses (if any) £	:	:	4.2.19

## Committee's Minute

*Assigned*

FEB 4 FEB 1910

+ LMB 1.10

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

© 2021

Lloyd's Register  
Foundation