

# REPORT ON MACHINERY.

No. 22904

Received at London Office 11.15.1910 30 AUG 1910

Date of writing Report 29.8.10 When handed in at Local Office 29.8.10 Port of Hull  
 No. in Survey held at Selby + Hull Date, First Survey May 31<sup>st</sup> Last Survey Aug 12<sup>th</sup> 1910  
 Reg. Book. Steel S. K. Prince Victor (Number of Visits 14.20)  
 & Supp. on the Steel S. K. Prince Victor Tons } Gross 207  
 Master Selby Built at Selby By whom built Messrs Cochrane & Sons When built 1910  
 Engines made at } By whom made } Messrs when made 1910  
 Boilers made at } Hull By whom made } Charles D. Holmes & Co when made 1910  
 Registered Horse Power H. Bernstein Owners H. Bernstein Port belonging to Gunsby  
 Nom. Horse Power as per Section 28 66 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12" - 21" - 34" Length of Stroke 24" Revs. per minute 112 Dia. of Screw shaft 7" Material of screw shaft Steel  
 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 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 — Length of stern bush 31"  
 Dia. of Tumbler shaft 6.6" as per rule 6.6" Dia. of Crank shaft journals 6.875" as fitted 6.875" Dia. of Crank pin 6.8" Size of Crank webs 13" x 4.5" Dia. of thrust shaft under collars 6.8" Dia. of screw 8" - 6" Pitch of Screw 11' - 3" to 10' - 3" No. of Blades 4 State whether moveable No Total surface 27.5 sq ft  
 No. of Feed pumps 1 Diameter of ditto 2.5" Stroke 24" Can one be overhauled while the other is at work —  
 No. of Bilge pumps 1 Diameter of ditto 2.5" Stroke 24" Can one be overhauled while the other is at work —  
 No. of Donkey Engines One Sizes of Pumps 2 3/4" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2", One 2 1/2" In Holds, &c. One 2" to fore hold, One 2" to slush well, and ejector to these parts  
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump — Is a separate Donkey Suction fitted in Engine room of size Yes 2 1/2" Ejector  
 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 hold suction How are they protected wood casing  
 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 7.7.10 of Stern Tube 7.7.10 Screw shaft and Propeller 7.7.10  
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

**BOILERS, &c.**—(Letter for record 5) Manufacturers of Steel The Steel Co of Scotland  
 Total Heating Surface of Boiler 1070 sq ft Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Multi S. Ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29.7.10 No. of Certificate 1761  
 Can each boiler be worked separately — Area of fire grate in each boiler 33 sq ft No. and Description of Safety Valves to each boiler Two Springs Area of each valve 3.97 sq ft 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 6 1/2" Int. dia. of boilers 12' - 3 1/2' Length 10' - 0" Material of shell plates S  
 Thickness 1 1/2" Range of tensile strength 28 - 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D.  
 long. seams D.B.S. J.P. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 4" Lap of plates or width of butt straps 15"  
 Per centages of strength of longitudinal joint rivets 88 - 69 Working pressure of shell by rules 183 lbs Size of manhole in shell 16" x 12"  
 plate 85 - 26 Size of compensating ring 4" x 1 1/2" No. and Description of Furnaces in each boiler Two plain Material S Outside diameter 43"  
 Length of plain part top 5' - 10 1/4" Thickness of plates crown 4 1/2" Description of longitudinal joint Welded No. of strengthening rings None  
 bottom 6 1/4" Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material S Thickness: Sides 3 1/2" Back 1 1/2" Top 3 1/2" Bottom 3 1/2"  
 Pitch of stays to ditto: Sides 9" x 10" Back 9 1/2" x 8 1/2" Top 10" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 198 lbs  
 Material of stays S Diameter at smallest part 1 5/8" Area supported by each stay 90 sq in Working pressure by rules 207 lbs End plates in steam space: Material S Thickness 1 1/6" Pitch of stays 14" x 14" How are stays secured D. T. W. Working pressure by rules 185 lbs Material of stays S  
 Diameter at smallest part 6.33 Area supported by each stay 289 sq in Working pressure by rules 227 lbs Material of Front plates at bottom S  
 Thickness 1/2" Material of Lower back plate S Thickness 3 1/2" Greatest pitch of stays 14 1/2" x 9 1/2" Working pressure of plate by rules 189 lbs  
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 5" Material of tube plates S Thickness: Front 2 1/2" Back 1 1/2" Mean pitch of stays 10"  
 Pitch across wide water spaces 15" Working pressures by rules 247 lbs Girders to Chamber tops: Material S Depth and thickness of girder at centre 9" x 1 3/4" Length as per rule 1' - 8 1/2" Distance apart 8 1/2" Number and pitch of stays in each Two 10"  
 Working pressure by rules 229 lbs 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 —

6100-60960-0019

**VERTICAL DONKEY BOILER—** Manufacturers of Steel.

No.	Description			When made	Where fixed
Made at	By whom made				
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from 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 Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

**SPARE GEAR.** State the articles supplied:— Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air circulation feed and bilge pump valves, and a quantity of assorted bolts nuts etc

The foregoing is a correct description,  
 p. pro CHARLES D. HOLMES & Co. LTD.  
 Harold I. Shearson, Manufacturer.

Dates of Survey while building: During progress of work in shops - 1910 - May 31, June 2, 6, 14, 17, 21, 29 July 5, 7, 8, 12, 20, 26, 29, 30, Aug. 5, 8, 9, 10.  
 During erection on board vessel - Aug. 12  
 Total No. of visits 20  
 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 20.7.10 Slides 20.7.10 Covers 20.7.10 Pistons 20.7.10 Rods 20.7.10  
 Connecting rods 20.7.10 Crank shaft 30.7.10 Thrust shaft 30.7.10 Tunnel shafts Screw shaft 29.6.10 Propeller 29.6.10  
 Stern tube 29.6.10 Steam pipes tested 8.8.10 Engine and boiler seatings 7.7.10 Engines holding down bolts 10.8.10  
 Completion of pumping arrangements 9.8.10 Boilers fixed 10.8.10 Engines tried under steam 12.8.10  
 Main boiler safety valves adjusted 12.8.10 Thickness of adjusting washers for 3/8" aft 1/4"  
 Material of Crank shaft Iron Identification Mark on Do. 615 JB Material of Thrust shaft Steel Identification Mark on Do. 615 JB  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 615 JB  
 Material of Steam Pipes Solid drawn Copper Test pressure 400 lbs

**General Remarks** (State quality of workmanship, opinions as to class, &c. The engines and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure and with the engines secured on board tested under steam and found satisfactory. They are now in good order and safe working condition and respectfully submitted as being eligible in our opinion to be classed with the notation of L.M.C. 8.10 in the Register Book.

It is submitted that this vessel is eligible for THE REGOED. + L.M.C. 8.10.

The amount of Entry Fee £ 1 : : When applied for, 29.8.10  
 Special £ 9.18 : :  
 Donkey Boiler Fee £ : : When received, 31.8.10  
 Travelling Expenses (if any) £ : 8 : 2 : : 19.10

J.M. J.W.D. 30/8/10  
 H. Roddy James Barclay  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute

Assigned

FRI. 2 SEP 1910

H.M.C. 8.10

MACHINERY CERTIFICATE



Lloyd's Register Foundation

These par  
Signal Letter

Official No

1278

No., Date, and I

Whether British Foreign Built

British

Number of Dec

Number of Ma

Rigged ...

Stern ...

Build ...

Galleries ...

Head ...

Framework an

vessel ...

Number of Bul

Number of wat

and their cap

Total to quarter the de

to bottom of keel

No. of sets of Engines.

Description

Triple

One Direct

Invert

No. of Shafts.

Partic

Description

Number ...

Iron or Ste

Loaded Pre

One

Under Tonnage

Space or spaces

Turret or Tank

Forecastle ...

Bridge space

Passer Break C

Side Houses

Deck Houses

Chart Houses

Spaces for mach

Section 78 (2)

1894. ...

Excess of Hatch

Gross T

Deductions, as p

Register

NOTE.—The only

Name of

No. of Owners

Name, Residence

M.O. Henry

Country of

Arthur

Country

Dated 12

30 (65181) Wt. 53