

REPORT ON MACHINERY.

No. 16169

WED. JAN. 17. 1911

Received at London Office

Date of writing Report 19 When handed in at Local Office 3/11 1912. Port of Greenock
 No. in Survey held at Port Glasgow Date, First Survey 15/9/11 Last Survey 8/11/1911
 Reg. Book. on the S.S. "HURVUI" (Number of Visits 4) Gross 8901
 Master Built at Port Glasgow By whom built Russell & Co Tons Net 5638
 Engines made at Glasgow By whom made David Rowan & Co When built
 Boilers made at By whom made when made
 Registered Horse Power Owners New Zealand Shipping Co Port belonging to
 Nom. Horse Power as per Section 28. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders No. of Cranks
 Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule Material of screw shaft as fitted
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight in the propeller boss 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 Length of stern bush
 Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface
 No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size
 Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
 Are all connections with the sea direct on the skin of the ship NO SEE SECRETARY'S LETTERS DATED 14th & 19th SEPT. 1911 Are they Valves or Cocks both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
 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 How are they protected
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
 Dates of examination of completion of fitting of Sea Connections 8/11/11 of Stern Tubes 21/9/11 Screw shaft and Propeller 25/9/11
 In the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
 Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
 Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plate
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules 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 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

Lloyd's Register
 F.W. 860-0118
 860-0128

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VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description				
Made at	By whom made		When made	Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safe
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:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops - - - 1911. Sept. 15-21-25. Nov. 8.
 During erection on board vessel - - -
 Total No. of visits 4.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft
Propeller				
Stern tube	Steam pipes tested	Engine and boiler seatings	25/9/11	Engines holding down bolts
Completion of pumping arrangements	Boilers fixed	Engines tried under steam		
Main boiler safety valves adjusted	Thickness of adjusting washers			
Material of Crank shaft	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.	
Material of Tunnel shafts	Identification Marks on Do.	Material of Screw shafts	Identification Marks on Do.	
Material of Steam Pipes	Test pressure			

General Remarks (State quality of workmanship, opinions as to class, &c. The propellers, stem bushes & fastenings of sea cocks & valves examined before launching & afterwards in dry dock & found in order. All sea connections were fitted direct on the skin of ship with the exception of main inspections which were fitted on a built recess tee & Secretory's letters dated 14th & 19th Sept 1911

Certificate (if required) to be sent to

The amount of Entry Fee .. £	:	:	When applied for,
Special £	:	:	19
Donkey Boiler Fee .. . £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

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

Committee's Minute

GLASGOW 16 JAN 1912

Assigned See minute on G.L. Rpt. No. 30995



Handwritten notes: 22. of hull.