

REPORT ON MACHINERY.

No. 29419

Date of writing Report 21 Oct 1910 When handed in at Local Office 17/10 10/10 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 14th March 1910 Last Survey 30th Sept 1910
Reg. Book. (Number of Visits 26)Boiler on the Built at Vancouver By whom built When built 1910
Engines made at Glasgow By whom made McKie & Baxter (No 56374) when made 1910
Boilers made at Renfrew By whom made Babcock & Wilcox when made 1910Registered Horse Power Owners Port belonging to
Nom. Horse Power as per Section 28 121 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines 2 Compound No. of Cylinders 4 No. of Cranks 4
Dia. of Cylinder (2) 10½ (2) 23½ Length of Stroke 24 Revs. per minute 140 Dia. of Screw shaft as per rule 6 3/8 as fitted 6 7/8 Material of screw shaft Steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No 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 30"
Dia. of Tunnel shaft as per rule 6 3/8 as fitted 6 3/8 Dia. of Crank shaft journals as per rule 6 3/8 as fitted 6 3/8 Dia. of Crank pin 6 3/8 Size of Crank webs 8 x 4 1/4 Dia. of thrust shaft under
collars 6 3/8 Dia. of screw 6.9 (1) Pitch of Screw 9.6 No. of Blades 4 State whether moveable Yes Total surface 20.5
No. of Feed pumps 2 Diameter of ditto 5 Stroke 12 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 (3) 2 1/2 Diameter of ditto 6 Stroke 8 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps 8 x 6 x 8, 6 x 5 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room In Holds, &c.

No. of Bilge Injections 1 sizes 5 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 Are they Valves or Cocks
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 Are the Blow Off Cocks fitted with a spigot and brass covering plate
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 of Stern Tube Screw shaft and Propeller
Is 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 2808 Is Forced Draft fitted No. and Description of Boilers 2 Babcock Wilcox Water tube
Working Pressure 160 lb 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
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 End plates in steam space:
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Diameter at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
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
Shipping. 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
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

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:—2 top end bolts & nuts, 2 bottom end bolts & nuts, 12 coupling bolts & nuts, 2 main bearing bolts & nuts, feed & bilge pump valves, 1 set HP piston rings, bolts, nuts & iron of various sizes

The foregoing is a correct description,

Manufacturer.

(Sgd) McRae & Barker

Dates of Survey while building	During progress of work in shops—	1910. Mar: 14: 24: 31. Apr. 4. 11. 14. 22. 26. May 3. 18. 23. June 16. 27.
	During erection on board vessel—	July 6. 11. 27. Aug. 3. 10. 18. 22. 30. Sep. 7. 9. 15. 20. 22.
	Total No. of visits	

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts	Cylinders 27/6/10	Slides 27/6/10	Covers 23/5/10	Pistons 23/5/10	Rods 27/6/10
Connecting rods 23/5/10	Crank shaft 18/5/10	Thrust shaft 18/5/10	Tunnel shafts 26/4/10	Screw shaft 26/4/10	Propeller 18/5/10
Stern tube 26/4/10	Steam pipes tested	Engine and boiler seatings	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 steel	Identification Mark on Do. 563-4	Material of Thrust shaft steel	Identification Mark on Do. 563-		
Material of Tunnel shafts steel	Identification Marks on Do. 563-4	Material of Screw shafts steel	Identification Marks on Do. 563-		
Material of Steam Pipes	Test pressure				

General Remarks (State quality of workmanship, opinions as to class, &c. The workmanship & material good. The engines have been built under Special Survey & shipped to Vancouver

The amount of Entry Fee .. £	:	:	When applied for,
Special £	9	9/-	12/10-1910
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	:	:	18/10-1910

Committee's Minute TUE. JUL. 25. 1911

Assigned

(Signed)

C. H. Pidditch & A. McKean
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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