

Date of writing Report Jan 21 1918 When handed in at Local Office Jan 21 1918 Port of Toronto
No. in Survey held at Toronto Date, First Survey Sept 10th 1914 Last Survey January 18th 1918
Reg. Book. 1018 (Number of Vessels 30)
1st Entry on the Wood Screw Steamer "Bar. Hootka" Tons { Gross 2332
Net 1440
Master H. C. King Built at Vancouver B.C. By whom built Western Canada Shipyards When built 1914
Engines made at Toronto By whom made Canadian Allis-Chalmers when made 1918
Boilers made at Montreal By whom made Canadian Vickers when made 1918
Registered Horse Power 1000 Owners Messrs. Fernie & Co. Port belonging to Liverpool
Nom. Horse Power as per Section 28 322 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Inverted Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 20" x 33" x 54" Length of Stroke 40" Revs. per minute 70 Dia. of Screw shaft as per rule 1.17 Material of CH. 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 yes 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 yes If two
liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 4'-1"
Dia. of Tunnel shaft as per rule 10.39 Dia. of Crank shaft journals as per rule 10.9 Dia. of Crank pin 11 7/8 Size of Crank webs 6'5" x 21 Dia. of thrust shaft under
collars 11'5" Dia. of screw 14'-6" Pitch of Screw 15'-3" No. of Blades 4 State whether moveable No Total surface 66'4"
No. of Feed pumps 2 Diameter of ditto 3'5" Stroke 20" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 3'5" Stroke 20" Can one be overhauled while the other is at work yes
No. of Donkey Engines 3 Sizes of Pumps 6x4x6-7x9x10-10x6x12 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4-3" In Holds, &c. 1-forepeak 2-#1 Hold 2-Deep tank
3-#2 Hold 1-Dunnel 1-after peak all 3"
No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 3"
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 Valves & cocks
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 no
What pipes are carried through the bunkers Bilge & deep tank filling How are they protected Iron sheathing
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
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top of Engine Platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel Lukens Steel Co. Coatsville.

Total Heating Surface of Boilers 5280 Is Forced Draft fitted yes No. and Description of Boilers 2 Howden
Working Pressure 185 Tested by hydraulic pressure to 280 Date of test 17th May 1918 No. of Certificate 3
Can each boiler be worked separately yes Area of fire grate in each boiler 60 sq No. and Description of Safety Valves to
each boiler Spring loaded Area of each valve 8-2958 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 13-6 Length 12-0 Material of shell plates Steel
Thickness 9/16 Range of tensile strength 26 to 30 tons Are the shell plates welded or flanged flanged Strip of riveting: cir. seams Single
long. seams double Diameter of rivet holes in long. seams 7/8 Pitch of rivets 3 1/2 Lap of plates or width of butt straps 7 1/2
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules plate Size of manhole in shell yes
Size of compensating ring yes No. and Description of Furnaces in each boiler yes Material yes Outside diameter yes
Length of plain part top Thickness of plates crown Description of longitudinal joint bottom No. of strengthening rings yes
Working pressure of furnace by the rules yes Combustion chamber plates: Material Steel Thickness: Sides yes Back yes Top 1 3/8" Bottom yes
Pitch of stays to ditto: Sides yes Back yes Top yes If stays are fitted with nuts or riveted heads yes Working pressure by rules yes
Material of stays Steel Area at smallest part 1 7/8 Area supported by each stay 40.5 Working pressure by rules 197 End plates in steam space:
Material Steel Thickness 7/8 + 3/4 Pitch of stays yes How are stays secured flanged Working pressure by rules 197 Material of stays Steel
Area at smallest part yes Area supported by each stay yes Working pressure by rules yes Material of Front plates at bottom yes
Thickness yes Material of Lower back plate yes Thickness yes Greatest pitch of stays yes Working pressure of plate by rules yes
Diameter of tubes 2" Pitch of tubes 3 1/8" x 2 1/4" Material of tube plates Steel Thickness: Front 13/8 Back 13/8 Mean pitch of stays yes
Pitch across wide water spaces yes Working pressures by rules yes Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 6 1/4" x 1 1/8" 10 lb Length as per rule yes Distance apart 6" Number and pitch of stays in each 4-16 3/4
Working pressure by rules 197 Steam dome: description of joint to shell Collector studs in flange % of strength of joint yes
Diameter 27" Thickness of shell plates 7/16 Material Steel Description of longitudinal joint Lap Diam. of rivet holes 13/16th
Pitch of rivets 2 1/2 Working pressure of shell by rules 252 Crown plates yes Thickness yes How stayed yes

SUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
Diameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 Connecting rod top end bolts + nuts
2 Connecting rod bottom end bolts + nuts. 2 Main bearing bolts + nuts. 1 Set coupling bolts + nuts
1 Set feed pump valves. 1 Set bilge pump valves. 1 Set piston rings + springs for each cylinder. 1 Set air pump valves. 1 Set circulating pump valves. 1 Propeller
50 Assorted bolts + nuts. 2 Iron rods of each size $\frac{1}{2}$, $\frac{3}{8}$, $\frac{1}{4}$, $\frac{3}{16}$, $\frac{1}{8}$, $\frac{1}{16}$ all 10 ft long

The foregoing is a correct description,

Canadian Mills Chalmers Ltd. Manufacturer.
For Michael D. Dobbie

Dates of Survey while building { During progress of work in shops -- Sept. 10, Oct. 11, 18, 22, 25, 27, 28, Nov. 1, 2, 4, 10, 13, 16, 19, 26, 29, 30, Dec. 1, 4, 5, 6, 7, 10, 14, 18, 22, 28, Jan. 11, 18.
During erection on board vessel --
Total No. of visits 30.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 4.12.17 Slides 30.11.17 Covers 4.12.17 Pistons 30.11.17 Rods 30.11.17
Connecting rods 6.12.17 Crank shaft 18.12.17 Thrust shaft 18.12.17 Tunnel shafts 6.12.17 Screw shaft 6.12.17 Propeller 18.1.18

Stern tube 27.10.17 Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft O.H. Steel Identification Mark on Do. 76 R.C.B. 18.12.17 Material of Thrust shaft O.H. Steel Identification Mark on Do. 75 R.C.B. 18.12.17
Material of Tunnel shafts O.H. Steel Identification Marks on Do. 73 R.C.B. 6.12.17 Material of Screw shafts O.H. Steel Identification Marks on Do. 71 R.C.B. 6.12.17

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case 10 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been constructed under special survey. It is of good material and workmanship and is eligible in our opinion for record with date when the survey is completed. It has now been shipped to Vancouver to be fitted in a wooden vessel

To complete the survey:—Engines to be fitted and secured on board with auxiliaries and connections according to the Rules

The amount of Entry Fee ... \$ 15 : 00 : When applied for
Special ... \$ 60 : 00 : Jan. 14, 1918
Donkey Boiler Fee ... £ : : When received
Travelling Expenses (if any) £ : : 30/4/19

Committee's Minute

FRI. 4-OCT. 1918

TUE. 10 DEC. 1918

TUE. 25 MAR. 1919

Assigned

Robert C. Blyth John W. Gwynne
Engineer Surveyor to Lloyd's Register of Shipping.