

REPORT ON MACHINERY.

Date of writing Report Oct 19 1918 When handed in at Local Office Oct 19 1918 Port of Victoria B.C.
 No. in Survey held at Victoria B.C. Date, First Survey July 10 1918 Last Survey Oct 19 1918
 Reg. Book. 1671 on the Single Screw Wood Steership "Haw Babine" (Number of Visits 12)
 Master J. Morrison Built at Victoria B.C. By whom built Furukawa Co. Tons { Gross 2341.87
 Net 1417.81
 Engines made at Toronto By whom made Polson Iron Works when made 1918
 Boilers made at _____ By whom made _____ when made _____
 Registered Horse Power 1400 Owners Eastern Steam Co (Glasgow) Port belonging to Victoria B.C.
 Nom. Horse Power as per Section 28 3176 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

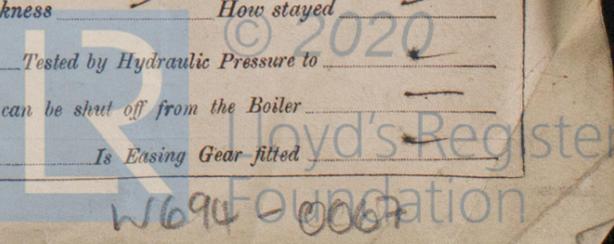
ENGINES, &c.—Description of Engines Indirect Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20 1/2 x 33 x 54 Length of Stroke 36 Revs. per minute 78 Dia. of Screw shaft 1 1/2 Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length of the 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 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 _____ Length of stern bush 3'-10"
 Dia. of Tunnel shaft 10 1/2 Dia. of Crank shaft journals 10 1/2 Dia. of Crank pin 1 1/2 Size of Crank webs 8x20 Dia. of thrust shaft under
 collars 10 1/4 Dia. of screw 1 1/2 Pitch of Screw 14'-0" No. of Blades 4 State whether moveable No Total surface 64 sq ft
 No. of Feed pumps 2 Diameter of ditto 10x12 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 8x5 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 7 Sizes of Pumps 7 1/2 x 7 1/2 - 8 x 5 1/2 - 5 1/2 x 4 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 1-6" A-3" In Holds, &c. 5-3" 2-2 1/2"
 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 Yes
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both 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 Lines 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 Eng. Platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Not Report Received
 Total Heating Surface of Boilers 5280 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Two Horizontal Water Tube
 Working Pressure 185 lbs Tested by hydraulic pressure to 270 lbs Date of test Aug 28 1918 No. of Certificate _____
 Can each boiler be worked separately Yes Area of fire grate in each boiler 60 sq ft No. and Description of Safety Valves to
 each boiler 2 Spring Loaded Area of each valve 8.2 sq in 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 10" Material of boilers Steel Length of boiler 9'-4" Material of shell plates Steel
 Thickness 3/8" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged Welded Descrip. of riveting: cir. seams Single Lap
 long. seams She: Lap Diameter of rivet holes in long. seams 7/8" Pitch of rivets 2.56 Lap of plates or width of butt straps 4 1/2"
 Per centages of strength of longitudinal joint rivets 79.86 Working pressure of shell by rules 218 Size of manhole in shell 12x16
 Size of compensating ring None No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material Steel Thickness: Sides _____ Back _____ Top 1 1/2" 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 _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 Material Steel Thickness 3/8" Pitch of stays Riveted How are stays secured _____ Working pressure by rules 185 lbs Material of stays _____
 Area 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 2" Pitch of tubes 33x24 Material of tube plates Steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays _____
 Pitch across wide water spaces _____ Working pressures by rules 185 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 6 1/2 x 8 1/2 Length as per rule 33" Distance apart 6" Number and pitch of stays in each 4 @ 6"
 Working pressure by rules 200 lbs Steam dome: description of joint to shell Fluted to pass on Drum % of strength of joint _____
 Diameter 1 1/2 x 2 1/4 Thickness of shell plates 7/16" Material Steel Description of longitudinal joint Lap Diam. of rivet holes 7/16"
 Pitch of rivets 2.5 (3 1/4) Working pressure of shell by rules 230 lbs Crown plates _____ Thickness _____ How stayed _____

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

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 18 MAR, 1919
 JUL, 1919

If not, state whether, and when, one will be sent



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - Two connecting Rod Top End Bolts & Nuts, Two Connecting Rod Bottom End Bolts & Nuts, Two Main Bearing Bolts & Nuts, One set of Coupling Bolts & Nuts, One set of Feed Pump Valves, One set of Pump Valves, One set of Piston Springs, Two Iron Rods of each size 5/8", 3/4", 1" x 18" acc 10 ft long. 50 Assorted Bolts & Nuts. 1 Pipefitter

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops - - June 1st to 25 July 1st to 26 Aug 3. 25. 28 Sept 6. 13. 24 Oct 7
During erection on board vessel - -
Total No. of visits 12.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts - Cylinders June 10th Slides June 10th Covers June 10th Pistons June 25th Rods June 25th
Connecting rods June 25th Crank shaft June 25th Thrust shaft June 25th Tunnel shafts June 25th Screw shaft June 10th Propeller June 6th
Stern tube June 10th Steam pipes tested Sept 6th Engine and boiler seatings July 10th Engines holding down bolts Aug 3rd
Completion of pumping arrangements Aug 28th 18 Boilers fixed Aug 3rd 1918 Engines tried under steam Oct 7th 1918
Completion of fitting sea connections June 13th 18 Stern tube June 10th 18 Screw shaft and propeller June 13th 18
Main boiler safety valves adjusted Oct 7th 1918 Thickness of adjusting washers 3/4" 5/8" 3/4" 5/8" 3/4" 5/8"
Material of Crank shaft Steel Identification Mark on Do. 12-5-18 12-5-18 12-5-18 Material of Thrust shaft Steel Identification Mark on Do. 12-5-18 12-5-18 12-5-18
Material of Tunnel shafts Steel Identification Marks on Do. 12-5-18 12-5-18 12-5-18 Material of Screw shafts Steel Identification Marks on Do. 12-5-18 12-5-18 12-5-18
Material of Steam Pipes Steel Test pressure 500 lbs

Is an installation fitted for burning oil fuel No 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 Yes If so, state name of vessel "Hon Russell"

General Remarks (State quality of workmanship, opinions as to class, &c. The following elements comprise the Boilers of this vessel

PORT	HEADER	No 152	No 152	No 152	STARBOARD	HEADER	No 153	No 153	No 153
No 152	No 153								
14172	14172	14172	14172	14172	14159	14159	14159	14159	14159
L.T. 370 LH									
20-3-18 J.H.H.	11-3-18 P.M.C.								

The Engines & Boilers have been built and installed under Special Survey and in accordance with the approved plans together with the auxiliaries, piping, Manways, Settings & Sea Connections.

The Material and workmanship are both of good quality. Upon completion the Machinery was tried under steam and found satisfactory. Downton Pump & Connections in good working order.

The Machinery & Boilers are eligible in my opinion to have the record LMB 10-18 B.S. 10-18 made in the Register Book in the case of this vessel

Note: The SHIP TO BE EXAMINED IN TWELVE MONTHS TIME (TELEGRAM: EL. Surveyor, NEW YORK APRIL 1918)

Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee £ 60 : 50 :
Special £ 120 : 50 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) \$ 22 : :
NEW YORK \$ 4 : :
When applied for, from 1876/1919
When received, 28/6/19

James Murdoch, Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 18 MAR. 1919
TUE. 22 JUL. 1919
FRI. AUG. 20 1919
Lloyd's Register Foundation

Committee's Minute TUE. 10 DEC. 1918
Assigned + LMB 10. 18 F.D.
note limits Subject.

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