

Rpt. 4.

REPORT ON MACHINERY.

No. 39515

Received at London Office

TUE. APR 20 1920

Date of writing Report _____ When handed in at Local Office _____ Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 14th July 1919 Last Survey 1-12-1919

Reg. Book. on the Main engines No. 747 for J. Boughlan & Sons Vancouver, B.C.

Master _____ Built at _____ By whom built _____ When built _____

Engines made at Glasgow By whom made J. Rowan & Co. Ltd. (No 747) when made 1919

Boilers made at _____ By whom made _____ when made _____

Registered Horse Power _____ Owners _____ 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 Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 27" x 44" x 73" Length of Stroke 48" Revs. per minute _____ Dia. of Screw shaft _____ Material of screw shaft _____

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 _____

Is 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 _____

boilers are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush _____

Dia. of Tunnel shaft _____ Dia. of Crank shaft journals _____ Dia. of Crank pin 14 1/2" Size of Crank webs 28" x 9" Dia. of thrust shaft under _____

Collars _____ Dia. of screw _____ Pitch of Screw _____ No. of Blades _____ State whether moveable _____ Total surface _____

No. of Feed pumps 2 Diameter of ditto 4" Stroke 2 1/2" Can one be overhauled while the other is at work _____

No. of Bilge pumps 2 Diameter of ditto 4" Stroke 2 1/2" 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 _____ 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 _____

Is the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

BOILERS, &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 _____ 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 _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____

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 _____ Area 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 _____

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 _____ 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 _____ Steam dome: description of joint to shell _____ % of strength of joint _____

Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

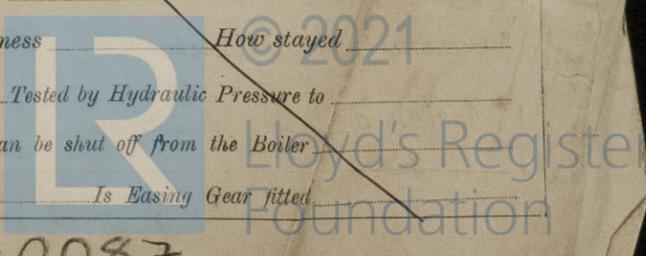
Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ 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 _____

W734-0087



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end bolts and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, one set coupling bolts and nuts, set of feed and bridge pump valves, assorted iron bolts and nuts and other articles as required by Specification.

The foregoing is a correct description,

David Rowan & Co. Ltd.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1919 July 14, Aug 22, Sept 16, 25, Oct 1, 5, 17, 22, 30, Nov 3, 5, 10, 21, 27, Dec 1. During erection on board vessel --- Total No. of visits 15

Is the approved plan of main boiler forwarded herewith

Is the approved plan of donkey boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 30-10-19 Slides 3-11-19 Covers 30-10-19 Pistons 3-10-19 Rods 3-11-

Connecting rods 10-11-19 Crank shaft 17-10-19 Thrust shaft - Tunnel shafts - Screw shaft - Propeller -

Stern tube - 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 5372, 0, 7, 8, 4, 6, 16, 5, 13

Material of Crank shaft Steel Identification Mark on Do. 17-10-19 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 -

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 - If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c. These main engines have been constructed under Special Survey in accordance with the Rules and approved plans, materials and workmanship are good.

The Engines from the after end of crankshaft up to the engine stop valve, have been despatched to Messrs. G. Boughlan & Sons Vancouver, B.C.

The work covered by the Specification has been satisfactorily carried out, with the following exceptions:— (1) The contraflo attachment for the condenser, which is being supplied by the Contraflo Co, has not been fitted to the H.P. piston rod and H.P. valve spindle.

The maker's state arrangements are being made for this work to be completed on arrival of the Engines in Canada.

The amount of Entry Fee ... £ : : When applied for, London Special ... £ 50 40 + 9/11 1920 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 19

(Signed) Jas Easthope. Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. JUN. 4 1920

FRI. JUL. 2 1920

FRI. DEC. 31 1920

FRI. 4 MAR. 1921

Assigned No action

TUE. AUG. 10 1920

TUE. 23 AUG. 1921

TUE. SEP. 7 1920

TUE. SEP. 27 1921

FRI. DEC. 3 1920

Lloyd's Register Foundation