

# REPORT ON MACHINERY.

No. 15781

FR. JUL. 9 1920

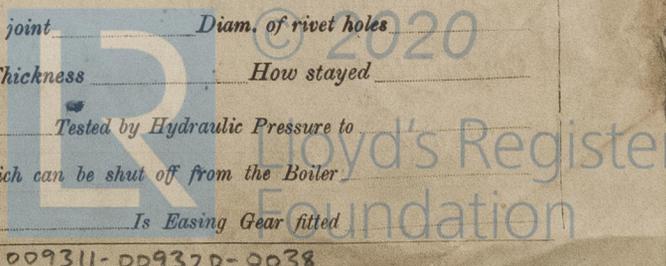
Received at London Office

Date of writing Report 19 When handed in at Local Office 7/7/ 1920 Port of Leith  
 No. in Survey held at Leith Date, First Survey 4/10/19 Last Survey 21/6/1920  
 Reg. Book. on the 2 Jug Dalmore (Number of Visits.....)  
 Master Built at Leith By whom built Cran Homerville Tons } Gross about 70  
 Engines made at Leith By whom made Cran Homerville Ltd. when made 1920 } Net  
 Boilers made at Glasgow By whom made A. Anderson & Co. when made 1920  
 Registered Horse Power Owners Johan. Jones & Co. Ltd Port belonging to  
 Nom. Horse Power as per Section 28 29 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

**ENGINES, &c.**—Description of Engines Compound Inverted No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 10-22 Length of Stroke 15" Revs. per minute Dia. of Screw shaft as per rule 4.91 Material of screw shaft } 8  
 as fitted 4.5 }  
 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 ✓ 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 27"  
 Dia. of Tunnel shaft as per rule 4.5 Dia. of Crank shaft journals as per rule 4.73 Dia. of Crank pin 4.74 Size of Crank webs 3.54 Dia. of thrust shaft under  
 as fitted 4.5 }  
 rollers 4.3/4 Dia. of screw 3-6" Pitch of Screw 7-6" No. of Blades 3 State whether moveable no Total surface 10.12f  
 No. of Feed pumps 2 Diameter of ditto 1 3/8 Stroke 7 1/2 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 1 Diameter of ditto 1 7/8 Stroke 7 1/2 Can one be overhauled while the other is at work -  
 No. of Donkey Engines 2 Sizes of Pumps 1 @ 4 1/2 x 3 x 6 + 1 @ 5 1/2 x 3 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps  
 in Engine Room 2 - 2" (to be fitted) In Holds, &c. one forward 2" (to be fitted)  
 No. of Bilge Injections 1 sizes 2" Connected to condenser or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 2"  
 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 Both (to be fitted)  
 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

**OILERS, &c.**—(Letter for record.....) Manufacturers of Steel  
 Total Heating Surface of Boilers 615 Is Forced Draft fitted no No. and Description of Boilers  
 Working Pressure 150lb 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 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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod top and bottom end bolts nuts, 2 main bearing bolts nuts, 1 set of coupling bolts, 1 set of feed charge pump valves, a quantity of assorted bolt nuts, Iron of various sizes - 1 Circulating pump rod thicket - 1 air pump rod thicket - 1 set of air pump metallic valves, 1 full set of putter valves, 1 set of piston packing rings, 1 piston valve, 1 eccentric, 1 white metal liner for thrust shoe, 1 slide valve spindle nuts, a quantity of condenser tubes & ferrules, 2 Cyl. escape valve springs, 1 safety valve spring, one screw shaft and propeller supplied.

The foregoing is a correct description,  
JOHN CRAN & SOMERVILLE LTD.

J. Anderson. SECRETARY. Manufacturer.

Dates of Survey while building: During progress of work in shops - - 1919 Oct 14-22-27 Nov 5-7-10-24-25 Dec 12 Jan 24 Feb 10 Mar 12 June 16-21. During erection on board vessel - - - - - 15. Total No. of visits 15. Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 20/10/19 Slides 12/12/19 Covers 12/12/19 Pistons 12/12/19 Rods 12/12/19 Connecting rods 12/12/19 Crank shaft 7/11/19 Thrust shaft Tunnel shafts 7-11-19 Screw shafts 14-11-19 Propellers 2/3/20

Stern tube 10/2/20 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 S Identification Mark on Do. 5015 JRN Material of Thrust shaft S Identification Mark on Do. 5015 JRN Material of Tunnel shafts S Identification Marks on Do. 5015 JRN Material of Screw shafts S Identification Marks on Do. 5015 JRN

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 No. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines have been built under special survey and the materials and workmanship are good. They have been shipped together with Boilers N. 2802 built by Messrs Anderson & Sons of Glasgow (Glb. report N. 40,050 enclosed) to Singapore where they will be fitted on board the vessel after it has been assembled. When the engines and boilers have been installed, I am of opinion that record of + SMC with date may be assigned.

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

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

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. APR. 19 1921 Assigned

