

REPORT ON MACHINERY

No. 34542

WED. 20 MAR. 1918

Date of writing Report

19

When handed in at Local Office

19

Port of Glasgow

No. in Survey held at
Reg. Book.

Clydebank

Date, First Survey 30th Aug. 1915 Last Survey 6th March 1918

on the

s/s Saint Dunston's Hill

(Number of Visits 4)

Gross

Tons

Net

Master Built at Ardrossan By whom built Ardrossan Bk & Ldg Co Ltd (270) When built 1918

Engines made at Clydebank By whom made Aitchison Blair Lim (92) when made 1918

Boilers made at Glasgow By whom made Lindsay Burnett & Co (nos 154/65) when made 1918

Registered Horse Power Owners Incead Son & Hussey Port belonging to London

Nom. Horse Power as per Section 28 149 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 14" 28" 46" Length of Stroke 33" Revs. per minute 98 Dia. of Screw shaft as per rule 9.35" 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 one length 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'-4"

Dia. of Tunnel shaft as per rule 8.6" Dia. of Crank shaft journals as per rule 9.09" Dia. of Crank pin 9 1/2" Size of Crank webs 6 1/2" x 12 1/2" Dia. of thrust shaft under

collars 9 1/2" Dia. of screw 11'-6" Pitch of Screw 13'-4 1/2" No. of Blades 4 State whether moveable no Total surface 45'-7 1/2"

No. of Feed pumps 2 Diameter of ditto 3" Stroke 14" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3" Stroke 14" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps Duplex General 7 1/2" x 6 x 10 Feed 6" x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2 1/2" in Suction one 2 1/2" in Engine room In Holds, &c. Two 2 1/2"

No. of Bilge Injections 1 sizes 4 3/4" Connected to condenser, or to circulating pump each fits a separate Donkey Suction fitted in Engine room & size yes 2 1/2"

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 none

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both

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 yes

What pipes are carried through the bunkers Cold Bilge Suctions How are they protected Strong wood casing

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

Dates of examination of completion of fitting of Sea Connections 20. 11. 17 of Stern Tube 20. 11. 17 Screw shaft and Propeller 20. 11. 17

Is the Screw Shaft Tunnel watertight No tunnel Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel See Separate report (No 37096)

Total Heating Surface of Boilers 2524 ft Is Forced Draft fitted No No. and Description of Boilers Two Single ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lb Date of test 13. 8. 17 No. of Certificate 13878

Can each boiler be worked separately yes Area of fire grate in each boiler 45 ft No. and Description of Safety Valves to

each boiler Two spring loaded Area of each valve 4.91 ft Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 4'-6" 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

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 Diameter 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

Diameter 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 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

holes 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

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: 1. Tail Shaft, 1. Propeller, 2. Top and bolts & nuts, 2. Bottom end bolts & nuts, 2. Main bearing bolts, 1. Set Coupling bolts, 1. Set feed & Bilge Pump Valves, 1. Set air Pump Valves, 1. Set Circulating Pump Valves and extra bolts & nuts & Bar Iron of various sizes.

The foregoing is a correct description,

ITCHISON, BLAIR LTD.

Arch. Blair

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1915 Aug 20, Sep 4, 8, 1916 Jan 12, May 16, June 16, Oct. 20, 31, Nov. 16, 22, 30, Dec. 21, 1917 Jan. 1, 22, Apr. 12, 16, 30, May 10, June 1, 1918 Aug 1, 23, Sep 3, 10, 20, 28, Oct 15, Nov. 19, 20, 26, Dec 5, 10, 18, 27, 1918 Jan. 7, 9, 11, 15, 18, 21, Feb 8, 12, 13, 15, Mar. 5, 6.
Total No. of visits 48

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts - Cylinders 16-11-16, 30-11-16, Slides 19-11-17, Covers 16-11-16, Pistons 30-11-16, Rods 15-10-17, Connecting rods 15-10-17, Crank shaft 30-4-17, Thrust shaft 20-9-17, Tunnel shafts —, Screw shaft 1-6-17, Propeller 1-6-17, Stern tube 1-6-17, Steam pipes tested 8-2-18 wqm, Engine and boiler seatings 28-9-17, Engines holding down bolts 15-2-18, Completion of pumping arrangements 6-3-18, Boilers fixed 18-1-18, Engines tried under steam 5-3-18, 6-3-18, Main boiler safety valves adjusted 12-2-18, Thickness of adjusting washers St 15, Pt 5/8, Sta 3/2, Pt 13, Pt 5/8, Sta 3/2, Material of Crank shaft steel, Identification Mark on Do. 98 HC, Material of Thrust shaft steel, Identification Mark on Do. 98 HC, Material of Tunnel shafts none, Identification Marks on Do. —, Material of Screw shafts steel, Identification Marks on Do. 98 HC, Material of Steam Pipes Copper, Test pressure 360 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

No

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The Engines and Boilers

of this Vessel have been built under Special Survey the workmanship and materials are good, they have been well fitted on board, tried under Steam and found to work satisfactorily.

The Machinery of this Vessel is eligible in our opinion for the record of + LMC in the Register Book.

When tried under Steam the Sta Boiler main feed check Valve Chest was leaking slightly, owing to the brass of which it is made being porous, but it is in safe working condition, a new Chest has been ordered and it will be fitted at the owners convenience.

N.B. The record in my opinion need not be withheld for above slight defect - L.H.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3.18.

The amount of Entry Fee £ 2 : 0 :
Special £ 13 : 19 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ 3 : 14 :
When applied for: 13.3.1918
When received: 2.4.1918

Committee's Minute GLASGOW. 19 MAR 1918

Assigned + L.M.C 3.18

Harry Clarke, Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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