

REPORT ON MACHINERY.

No. 40197

Received at London Office

When handed in at Local Office 7. 7. 1920 Port of GLASGOW

Survey held at Glasgow Date, First Survey 22. 5. 19. Last Survey 27. 5. 1920

on the Engine No. 543 (Standard A) (Number of Visits 82)

Built at Glasgow By whom built Fairfield Shipbuilding & Engineering Co. Ltd. No. 543

When made 1920

Horse Power 489 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Cylinders 24-44-43 Length of Stroke 48 Revs. per minute 78 Dia. of Screw shaft as per rule 14.7 as fitted 15.1/2 Material of screw shaft Steel

Screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight

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

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two

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

Shaft tunnel shaft as per rule Dia. of Crank shaft journals as per rule 13.99 as fitted 14.5 Dia. of Crank pin 14.5 Size of Crank webs 28x9 Dia. of thrust shaft under

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

Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes

Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes.

Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room In Holds, &c.

Large Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Connections with the sea direct on the skin of the ship Are they Valves or Cocks

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

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

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

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

RS, &c. (Letter for record) Manufacturers of Steel

Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Pressure Tested by hydraulic pressure to Date of test No. of Certificate

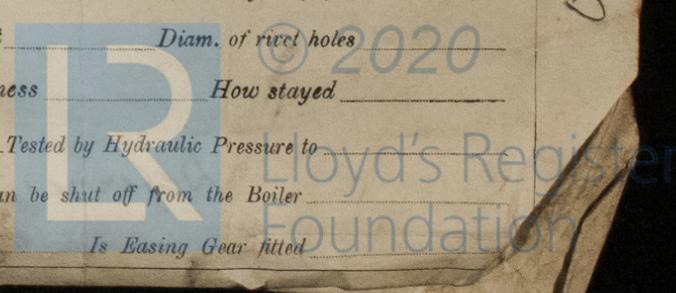
boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

005644-00865-0133



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. " " Bottom " " "
- 2. Main Bearing Bolts and nuts
- 3. Crank Shaft Coupling bolts & nuts
- 1 set Feed and Bilge pump Valves
- 12. Studs & nuts for Cylts & Steam Chest Covers
- 12 Junk ring studs and nuts
- 12 Condenser Tubes
- 12 Packing rings for Piston and Valve rods
- 1. HP. Piston Valve.

The foregoing is a correct description,

FOR THE FAIRFIELD SHIPBUILDING AND ENGINEERING CO., LIMITED.

Ally Cleghorn Manufacturer.

Dates of Survey while building	During progress of work in shops --	1917. May 22, June 1, 21, July 6, 10, 30, Aug. 6, 9, 21, Sept 3, 12, 21, Oct 2, 4, 8, 15, 22, 24, 29, Nov 1, 2, 1918. Dec 3, 11, 20, 1918.
	During erection on board vessel ---	June 6, 21, Sept. 24, 25, Oct 2, 6, 22, 29, Nov 8, 15, 21, 28, Dec 4, 5, 17, 23, 1919, Jan 8, 15, 1920, Mar 13, 20, Apr 12, May 9, 20, June 3, 5, 9, 13, 20, July 15, 17, Aug. 8, Sept. 14, 23, Oct 13, 1920.
	Total No. of visits	82

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2. 10. 18 Slides 2. 10. 18 Covers 8. 11. 18 Pistons 2. 10. 18 Rods 22. 10.

Connecting rods 22. 10. 18 Crank shaft 10. 1. 18 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

Material of Crank shaft S Identification Mark on Do. HLOYDS 5H3, WGM 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 Engines have been built under Special Survey in accordance with the Specification. The workmanship & material are of good quality.

These Engines were originally built to the order of the Ministry of Shipping, but have now been sold to Messrs J. & K. Macdonald & Co. Ltd. Glasgow. These Engines have now been shipped to Messrs J. & K. Macdonald & Co. Ltd. Vancouver B.C. to be fitted into a new vessel building by their Glasgow completed as a Standard A Type.

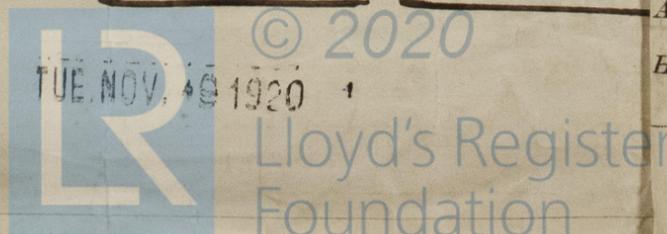
GLASGOW

The amount of Entry Fee ... £	When applied for,
Special ... £ 58/10/-	19
Donkey Boiler Fee ... £	When received,
Travelling Expenses (if any) £	1/9/20 266 3/11

W. Gordon-Fruehlin Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 14 JUL 1920

Assigned Deferres.



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