

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 27 MAY 1930

Date of writing Report 26 May 1930 Port of Belfast

No. in Survey held at Belfast Date, First Survey 18 March 1919 Last Survey 14 May 1930

Reg. Book. on the "CITY OF SYDNEY" (Number of Visits 103)

Tons Gross Net

Built at Belfast By whom built Workman, Clark (1928) Ltd. Yard No. 504 When built 1930.

Engines made at Belfast By whom made Workman, Clark (1928) Ltd. Engine No. 504 when made 1930.

Boilers made at Belfast By whom made Workman, Clark (1928) Ltd. Boiler No. 504 when made 1930.

Registered Horse Power Owners Ellerman Lines Ltd. Port belonging to Liverpool

Nom. Horse Power as per Rule 1792.905 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Trade for which Vessel is intended Caprotti Valve gear

ENGINES, &c.—Description of Engines Four Cylinders Triple Expansion Revs. per minute

Dia. of Cylinders 26 1/2 - 46 - 56 - 56 Length of Stroke 51 No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 16 1/8 as fitted 16 3/4 Crank pin dia. 16 3/4 Crank webs Mid. length breadth 25 1/8 Thickness parallel to axis 10 1/2

Intermediate Shafts, diameter as per Rule 15.83 as fitted 16 1/2 Thrust shaft, diameter at collars as per Rule 16.622 as fitted 16 3/4

Tube Shafts, diameter as per Rule 17.27 as fitted 18 1/4 Is the shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 8.35 as fitted 7 1/8 Thickness between bushes as per Rule 6.26 as fitted 25/32 Is the after end of the liner made watertight in the propeller boss Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 6-1

Propeller, dia. 19-9 Pitch 20-3 No. of Blades 4 Material Bronze whether Moveable Yes Total Developed Surface 127 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 5 1/2 Stroke 22 1/2 Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 5 1/2 Stroke 22 1/2 Can one be overhauled while the other is at work Yes

Feed Pumps No. and size 1 1/2 x 12 x 26 1-6 1/2 x 8 x 14 Pumps connected to the Main Bilge Line No. and size 2-5 1/2 x 2 1/2 1-10 1/2 x 14 x 24 2-6 1/2 x 7 x 15

How driven Steam main engine Steam

Ballast Pumps, No. and size 10 1/2 x 14 x 24 one Lubricating Oil Pumps, including Spare Pump, No. and size 2-8 1/2 x 18

Are two independent means arranged for circulating water through the Oil Cooler Yes

Bilge Pumps;—In Engine and Boiler Room 4-3 1/2 2-3 1-2 1/2 (Zoom gear case pit) 4-3 (to transfer pump only)

In Holds, &c. No 1 hold 2-3 No 2 hold 2-4 No 3 hold 2-3 Deep tank 2-3 No 4 hold 2-3 No 5 hold 2-3

Tunnel well 1-3

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-14

No. and size 1-9 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges 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 pass through the bunkers None How are they protected

What pipes pass through the deep tanks Bilge pipes only Have they been tested as per Rule Yes

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

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 11448 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers 4 S.E. Multi 4 SB Working Pressure 265 lbs. sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes

(If not state date of approval)

Superheaters General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:—

2 C.I. Propeller Blades. 1 pair crank pin bushes complete for HP, MP, & LP

2 Bottom End Bolts for HP & MP. 2 Top End Bolts for HP & MP. 2 MB Bolts & Nuts.

1 Set Bolts & Nuts for 1 Shaft Coupling. 1 set of Piston Rings for each size. 6 Junk Ring Bolts, nuts & washers.

1 Set studs & nuts for 1 Propeller Blade. 1 set of Bilge Pump overhaul seats. 2 check valve links.

1 Safety valve spring for each boiler. 100 Linchpins. 1 doz water pump liners 1 Brake stay tube of each size.

6 Main Boiler Tubes. 1 set of Suction & Delivery Valves & Seats for Main Feed Pump.

1 set of Suction & Delivery Valves & Seats complete for Air Pump. 100 Bolts & nuts assorted, 1 doz bars of various sizes.

1 set Lubricating Bearing Bushes, 1 Bush 1st Reduction Pinion Bearing, 2 Bushes 2nd Reduction Pinion Bearing.

1 Bush for Clutch Bearing, 1 Bush for main Gen Wheel Bearings, 1 Bush Transmission Shaft Bearings.

1 Set Pins for 1 side of Propeller Thrust. 7 Lubricator Blades for Piston. 7 Lubricator Blades for Cylinder, 5 1/2 pin Bolts.

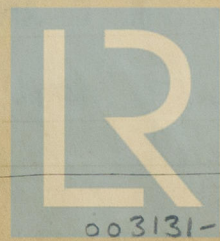
The foregoing is a correct description,

FOR WORKMAN CLARK (1928) LIMITED.

J. Cunningham

Secretary.

Manufacturer.



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Lloyd's Register

Foundation

1929
During progress of work in shops --
Dates of Survey while building
During erection on board vessel --
Total No. of visits

Dates of Examination of principal parts—Cylinders 1-10-29
Pistons 1-10-29
Crank shaft 14-8-29
Tube shaft
Stern tube 30-8-29
Piston Rods 30-8-29
Thrust shaft See Glasgow Rpt. 49565
Screw shaft 10-9-29
Engine and boiler seatings 14-9-29
Engines holding down bolts 17/12/29.

Completion of fitting sea connections 2-10-29
Completion of pumping arrangements 17/11/30.
Main boiler safety valves adjusted 10/1/30.
Crank shaft material Steel Identification Mark LLOYD'S No. 64 A.D.M. 14-5-29
Intermediate shafts, material Steel Identification Marks LLOYD'S No. 69 A.D.M. 14-5-29
Screw shaft, material Steel Identification Mark LLOYD'S No. 68 A.D.M. 10-9-29
Is an installation fitted for burning oil fuel Yes.
Have the requirements of the Rules for the use of oil as fuel been complied with Yes.
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes.
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 machinery of this vessel was constructed under Special Survey. The materials and workmanship are sound and good. The main engines and auxiliaries were tried under steam at a motion trial and sea trial with satisfactory results. In our opinion the vessel is eligible for notation in the Register Book + LMC 5,30. CL. Boiler pressure 265 lbs sq. in. Fitted for oil fuel. F.P. above 150°F. Aux boiler pressure 265 lbs sq. in.

It is submitted that this vessel is eligible for THE RECORD.

+ LMC 5.30 CL, F.D.

Fitted for oil fuel 5.30 Above 150°F.

Caprotti Valve gear

They 26 1/2 46 + (2) 56 - 57
+ H.P. Turbine with D.P. gearing
Hydraulic coupling.

APR 27/30

Under

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 115 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 26 May 1930
When received, 4-6-30

John K. Williams
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 6 JUN 1930

Assigned

+ LMC 5.30 F.D.
Fitted for Oil fuel 5.30 Above 150°F.

CERTIFICATE WRITTEN



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