

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 1942 When handed in at Local Office 1. 8. 1942 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 20th May 41 Last Survey 30. 7. 1942
 Reg. Book on the "EMPIRE BALFOUR" (Number of Visits 35)
 Tons { Gross 4200.94
 Net 4946.38
 Built at Port GLASGOW By whom built LITHGOWS LIMITED Yard No. 998 When built 1944
 Engines made at Glasgow By whom made Harland & Wolff Ltd Engine No. A/74 MSM When made 1942
 Boilers made at By whom made Boiler No. When made
 Registered Horse Power Owners Ministry of War Transport Port belonging to
 Nom. Horse Power as per Rule 510 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended

Engines, &c.—Description of Engines Triple expansion Revs. per minute 76
 Dia. of Cylinders 24½ - 39 - 70 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 14½ as fitted 14½ Crank pin dia. 14½ Crank webs Mid. length breadth 22 Thickness parallel to axis 9
 as fitted 14½ Mid. length thickness 9 shrunk Thickness around eye-hole 6½
 Intermediate Shafts, diameter as per Rule 13.33 as fitted 13.33 Thrust shaft, diameter at collars as per Rule 14 as fitted 14
 Tube Shafts, diameter as per Rule 14.85 as fitted 14.85 Is the { tube screw } shaft fitted with a continuous liner { yes
 as fitted 14.85
 Bronze Liners, thickness in way of bushes as per Rule 24½ as fitted 24½ Thickness between bushes as per Rule 18½ as fitted 18½ Is the after end of the liner made watertight in the
 propeller boss 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
 at If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5-1
 Propeller, dia. 18-3 Pitch 16-6 No. of Blades 4 Material Cast Iron whether Moveable Total Developed Surface 110 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 27 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 27 Can one be overhauled while the other is at work yes
 Feed { No. and size Pumps connected to the { No. and size
 Pumps { How driven Main Bilge Line { How driven
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room
 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes
 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
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges 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 pass through the bunkers How are they protected
 What pipes pass through the deep tanks Have they been tested as per Rule
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers
 Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters
 No. and Description of Boilers Working Pressure

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 26-4-41 Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

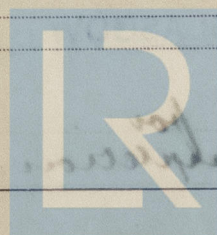
SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.



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004906-004917-0145

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Nov 19
1941
Dec 26 30 (1942)
Jan 4 5 12
Mar 12 27
Apr 10 15 28
May 19
1942
May 20: Jun. 3, 12, 19: July 7: Sep. 3, 10, 11: Oct. 1, 24: Nov. 10, 12, 19, 26: Dec.
Jan. 4, 5, 12: Feb. 4, 5, 12: Mar. 12, 27: Apr. 10, 15, 28:
June 11, 26: July 2, 3, 7, 17, 30:

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

35

Dates of Examination of principal parts—Cylinders 19-1-42 & 21-1-42 Slides 5-2-42 Covers 19-1-42 & 21-1-42

Pistons 5-2-42 Piston Rods 12-2-42 Connecting rods 27-3-42

Crank shaft 19-11-41 Thrust shaft Intermediate shafts

Tube shaft Screw shaft Propeller

Stern tube Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Crank shaft material Steel Identification Mark 8370-1 P.F. TEST No. 1 Thrust shaft material Identification Mark

Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test

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 the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel A/72 MSM. 5 Longon Rpt. No 65294

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

These main engines have been built under Special Survey and in accordance with the approved plans, the Rules of this Society, and the Ministry of War Transport Specification.

The materials and workmanship are good.

The engines have been dismantled and despatched to Messrs Beardmore's yard, Dalmeir, to be stored until required.

The machinery will be eligible in my opinion to be classed in the Register Book with the notation LMC. C.L. with date when efficiently installed on board a classed vessel and tried under working conditions.

1/8/42

GLASGOW

The amount of Entry Fee ... £ 6 : 0 : - When applied for, 4 AUG 1942

Special Specification ... £ 40 : 4 : -

Donkey Boiler Fee ... £ 10 : - : -

Travelling Expenses (if any) £ : : - When received, 5/9/1942

Committee's Minute GLASGOW 4 AUG 1942

Assigned Signature for Completion

P. Fitzgerald, Engineer Surveyor to Lloyd's Register of Shipping.

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