

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

30 OCT 1946

Date of writing Report 21st OCT 1946 When handed in at Local Office 24th OCT 1946 Port of GREENOCK
 No. in Survey held at GREENOCK Date, First Survey 16th MAY 1946 Last Survey 11-10-46 19
 Reg. Book (Number of Visits 3)
 on the Sing Sc "JALARAJAN" Tons Gross 5085.31
Net 3034.24
 Built at PORT GLASGOW By whom built LITHGOWS L^{td} Yard No. 1015 When built 1946
 Engines made at GREENOCK By whom made JOHN G. KINCAID & CO^l Engine No. 773 When made 1946
 Boilers made at do By whom made do Boiler No. 773 When made 1946
 Registered Horse Power Owners SCINDIA STEAMSHIPS (LONDON) L^{td} Port belonging to BOMBAY
 Nom. Horse Power as per Rule 575 MN Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended OPEN SEA SERVICE

ENGINES, &c.—Description of Engines TRIPLE EXPANSION Revs. per minute 68.5
 Dia. of Cylinders 24.5" 41" 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 as per Rule 13.997 Mid. length breadth 22" Thickness parallel to axis 8 3/4"
 Crank shaft, dia. of journals as fitted 14 1/4" Crank pin dia. 14 1/4" Crank webs Mid. length thickness 8 3/4" shrunk Thickness around eye-hole 6 1/2"
 Intermediate Shafts, diameter as per Rule App^t Thrust shaft, diameter at collars as per Rule App^t
 as fitted 13.625" as fitted 14.25"
 Tube Shafts, diameter as per Rule App^t Screw Shaft, diameter as per Rule App^t Is the tube screw shaft fitted with a continuous liner Yes
 as fitted 16 3/8" as fitted 16 3/8"
 Bronze Liners, thickness in way of bushes as per Rule App^t Thickness between bushes as per Rule App^t Is the after end of the liner made watertight in the propeller boss Yes
 as fitted 7/8" as fitted 2 1/32"
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 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 Yes
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube at No If so, state type app^t M.B. Length of Bearing in Stern Bush next to and supporting propeller 5'-2"
 Propeller, dia. 17'-9" Pitch 17'-8" No. of Blades 4 Material M.B. whether Moveable Yes Total Developed Surface 91 sq. feet
 Feed Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size 1- 8" x 10 1/2" x 22" Pumps connected to the Main Bilge Line { No. and size 1- 12" x 10 1/2" x 19" 2- 4 1/2" x 24"
 How driven Steam How driven steam main engines
 Ballast Pumps, No. and size 1- 12" x 10 1/2" x 24" Lubricating Oil Pumps, including Spare Pump, No. and size None
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 4 @ 3" / 1 @ 2" Tunnel well 1 @ 2 1/2"
 In Pump Room Yes In Holds, &c. N^o 1 2 @ 3" N^o 2 2 @ 3 1/2" N^o 3 2 @ 3" N^o 4 2 @ 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 9" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size 1 @ 4 1/2" 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 below
 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 For hold bilge suction How are they protected Wood casing
 What pipes pass through the deep tanks NONE 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

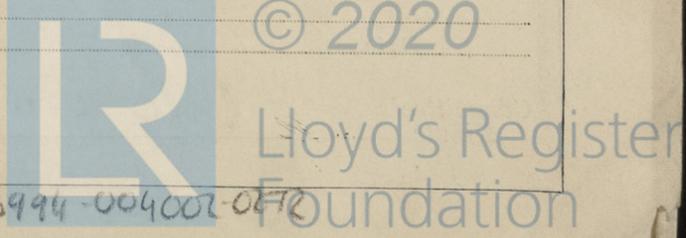
MAIN BOILERS, &c.—(Letter for record 87154) Total Heating Surface of Boilers 87154
 Which Boilers are fitted with Forced Draft All Boilers Which Boilers are fitted with Superheaters None
 No. and Description of Boilers 3 SE multitubular Working Pressure 220 lb / sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 Can the donkey boiler be used for other than domestic purposes Yes

PLANS. Are approved plans forwarded herewith for Shafting 13-9-45 Main Boilers 10-1-46 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 Superheaters Yes General Pumping Arrangements 7-11-45 Oil fuel Burning Piping Arrangements Yes

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied See attached list

The foregoing is a correct description.
 For JOHN G. KINCAID & CO. LIMITED.
A. M. Gemmell Chief of Technical Staff.

Manufacturer.



003994-004002-0070

Dates of Survey while building

During progress of work in shops - - (1946) MAY 16-24. JUNE 5-14-28. JULY 15-16-19-22-24-31. AUG. 3-5-6-9-12-13-15-16-19-20-27-31. SEPT. 3-5-6-11-13-16-18-19-20-23-24. OCT. 1-8-11.

During erection on board vessel - - -

Total No. of visits 34

Dates of Examination of principal parts—Cylinders 19-7-46 Slides 19-7-46 Covers 19-7-46

Pistons 19-7-46 Piston Rods 16-8-46 Connecting rods 16-8-46

Crank shaft 16-8-46 Thrust shaft 16-7-46 Intermediate shafts 16-7-46

Tube shaft ✓ Screw shaft 14-6-46 Propeller 14-6-46

Stern tube 28-6-46 Engine and boiler seatings 15-8-46 Engines holding down bolts 23-9-46

Completion of fitting sea connections 5-6-46

Completion of pumping arrangements 11-10-46 Boilers fixed 3-9-46 Engines tried under steam 1-10-46

Main boiler safety valves adjusted 11-10-46 Thickness of adjusting washers $\frac{1}{32}$ $\frac{3}{8}$ $\frac{3}{8}$ $\frac{5}{16}$ $\frac{9}{16}$ $\frac{5}{16}$

Crank shaft material S Identification Mark LQ14930 CNH Thrust shaft material S Identification Mark LQ14930 CNH

Intermediate shafts, material S Identification Marks LQ14930 CNH Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material S Identification Mark LQ14930 CNH Steam Pipes, material SDS Test pressure 450 lbs Date of Test 27 Aug - 18 Sept 46

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 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 No ✓ 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 No

Is this ^{Engines} machinery duplicate of a previous case No ✓ If so, state name of vessel Galakrishna

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

The machinery of this vessel has been constructed in accordance with the Rules and approved plans. The materials & workmanship are sound & good. It has been tested out under full working conditions on a sea trial with satisfactory results & is eligible in my opinion to have the notation + LMC 10-46 & Notation Screw shaft CL 3 SB. 220 lbs. ¹¹FD

The amount of Entry Fee ... £ : : When applied for,

Special ... £ 132 : 12 : 24th OCT 1946

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 19

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Date 29 OCT 1946

Committee's Minute

-1- Enc 10.46



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ML-D Certificate to be sent to Greenock
(The Surveyors are requested not to write on or below the space for Committee's Minute.)