

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

12 SEP 1928

Date of writing Report 23.9.28 When handed in at Local Office 28th September 28 Port of Greenock
 No. in Survey held at Greenock Date, First Survey 6th September 1924 Last Survey 5th September 1928
 Reg. Book. S/S "Colorado" (Number of Visits 64)
 on the P. Glasgow By whom built Lithgow & Co Yard No. 805 Tons { Gross 4572.52
 Engines made at Greenock By whom made John & Kincaid & Co Engine No. 643 When built 1928
 Boilers made at ditto By whom made ditto Boiler No. 643 when made 1928
 Registered Horse Power 441 Owners Beal Bros & Co Port belonging to Glasgow
 Nom. Horse Power as per Rule 441 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Foreign

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 40
 Dia. of Cylinders 25"-42"-40" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.404 Crank pin dia. 13 3/4" Mid. length breadth shrunk Thickness parallel to axis 8 5/8"
 Intermediate Shafts, diameter as per Rule 13.06 Thrust shaft, diameter at collars as fitted 13 3/4" Thickness around eye-hole 6 1/16"
 Tube Shafts, diameter as per Rule 14.5 Is the tube shaft fitted with a continuous liner Yes
 Screw Shaft, diameter as fitted 14 3/4" as per Rule 14.5 Is the after end of the liner made watertight in the
 Bronze Liners, thickness in way of bushes as per Rule 3 1/4" Thickness between bushes as fitted 3 1/4" 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 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 shaft No Length of Bearing in Stern Bush next to and supporting propeller 59"
 Propeller, dia. 14.6 Pitch 14.9 No. of Blades 4 Material Brown whether Moveable No Total Developed Surface 100 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size 2 WEIRS 4" x 9 1/2" x 21" Pumps connected to the { No. and size one 9" x 13" x 10"
 { How driven one 5" x 3 1/2" x 6" Handover Pump Main Bilge Line { How driven Steam
 Ballast Pumps, No. and size one 9" x 13" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 3 2 1/2" 1 2 1/4"
 In Holds, &c. 70 1. 2. 3" 70 0. 2. 2. 3 1/4" Deep Tanks 2. 3 1/2" 70 3. 2 3 1/4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 4 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size one 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 both
 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 are carried through the bunkers Bilge Suction How are they protected coning
 What pipes pass through the deep tanks Suction 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 U E R Platform

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 6486
 Is Forced Draft fitted Yes No. and Description of Boilers 3 Single Ended Working Pressure 200
 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 Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:— 2 connecting Rod bolts, nuts for top end
ditto for bottom end 2 main bearing bolts, one set
of coupling bolts, one set of feed, Bilge Pump valves,
a quantity of assorted bolts, nuts, & more of various sizes

The foregoing is a correct description.

FOR JOHN & KINCAID & CO., LIMITED

Robert Green

Manufacturer.



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Lloyd's Register
Foundation

003513-003524-0294

(1924) Sept 6-21-23-30 Oct 12-14-19-24-31 Nov 3-10-15-21 Dec 1-5-9-20-23 (1928) Jan 9-16-19-24-24-31 Feb 4-9-16-24
 During progress of work in shops - - - Mar 8-14-15-20-22-26-28-30 April 2-4-10-12-14-19-24 May 1-8 July 14-24-25-24-30-31 August 3-6-8-10-15-14-21-21-23
 Dates of Survey while building During erection on board vessel - - -
 Total No. of visits 64.

Dates of Examination of principal parts—Cylinders 24. 10 27 Slides 31 - 10 27 Covers 24. 10 27
 Pistons 16. 2. 28 Piston Rods 16. 2. 28 Connecting rods 2. 4. 28
 Crank shaft 20. 12. 27 Thrust shaft 4. 4. 28 Intermediate shafts 14. 4. 28
 Tube shaft ✓ Screw shaft 30. 3 28 Propeller 25. 7. 28
 Stern tube 20. 3. 28 Engine and boiler seatings 27 7 28 Engines holding down bolts 6. 8. 28
 Completion of pumping arrangements 29. 8. 28 Boilers fixed 6. 8 28 Engines tried under steam 3. 9. 28
 Main boiler safety valves adjusted 29. 8 28 Thickness of adjusting washers P 11/32 S 11/32 P 11/32 S 11/32 P 11/32 S 11/32
 Crank shaft material S Identification Mark LR 643 WGM Thrust shaft material S Identification Mark LR 2046 WGM
 Intermediate shafts, material S Identification Marks 2049 2048 864 WGM Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material S Identification Mark 2043 LR WGM Steam Pipes, material L 1/2 inch Test pressure 600 Date of Test 6.8.28
 Is an installation fitted for burning oil fuel 910 Is the flash point of the oil to be used over 150°F. ✓
 Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
 Is this machinery duplicate of a previous case 910 If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. These engines & boilers have been built under special survey in accordance with the approved plans & the workmanship & material are of good quality. They are now securely fitted on board, tried under steam & found satisfactory. The machinery is eligible in my opinion for the record of LMC. 9.28

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.28 F.D.C.

14/9/28

ARK

GREENOCK.

Certificate to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 5 : - : When applied for,
 Special ... £ 95 : 13 : - : 14th SEPTEMBER 1928.
 Donkey Boiler Fee ... £ ✓ : - : When received,
 Travelling Expenses (if any) £ ✓ : - : 6th SEPTEMBER 1928.

Committee's Minute GLASGOW 11 SEP 1928

Assigned + LMC 9.28

F.D.

W. Gordon-Maclaine

Engineer Surveyor to Lloyd's Register of Shipping.



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