

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 22<sup>ND</sup> FEB. 1943 When handed in at Local Office 26<sup>TH</sup> FEB. 1943 Port of GREENOCK  
 No. in Survey held at GREENOCK Date, First Survey 8<sup>TH</sup> JUNE 1942 Last Survey 19<sup>TH</sup> July 1943  
 Reg. Book Sup. 88736 on the SINGLE SC "TRIONA" (Number of Visits 97) Tons {Gross 7282.89  
 Net 4023.21  
 Built at PORT GLASGOW By whom built LATHGOWS LTD Yard No. 974 When built 1943  
 Engines made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD Engine No. 741 When made 1943  
 Boilers made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD Boiler No. 741 When made 1943  
 Registered Horse Power - Owners BRITISH PHOSPHATE COMMISSIONERS Port belonging to LONDON  
 Nom. Horse Power as per Rule 509 <sup>510</sup> Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended OCEAN GOING

ENGINES, &c.—Description of Engines Three cylinder triple Revs. per minute 76  
 Dia. of Cylinders 24 1/2 - 39 - 70 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.997 Crank pin dia. 14 3/4 Crank webs Mid. length breadth 22 Thickness parallel to axis 9  
as fitted 14.25 Mid. length thickness 9 shrunk Thickness around eye-hole 6 3/8  
 Intermediate Shafts, diameter as per Rule 13.33 Thrust shaft, diameter at collars as per Rule 13.997  
as fitted 13.625 as fitted 14.25  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 14.851 Is the tube shaft fitted with a continuous liner Yes  
as fitted as fitted 15.375 screw  
 Bronze Liners, thickness in way of bushes as per Rule .753 Thickness between bushes as per Rule .565 Is the after end of the liner made watertight in the  
as fitted .8125 as fitted .75 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  
 at No 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 C.I. whether Moveable No Total Developed Surface 115 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 Pumps { No. and size 4 7x9 1/2 Pumps connected to the Main Bilge Line { No. and size 6 13x10 1/2 6 7x9 1/2  
 How driven Steam 21 24 21 How driven Steam  
 Ballast Pumps, No. and size 6 13x10 1/2 24 Lubricating Oil Pumps, including Spare Pump, No. and size 1  
 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 7 @ 3"  
 In Pump Room 2 @ 3" In Holds, &c. N<sup>o</sup> 1. 2 @ 3" N<sup>o</sup> 2. 2 @ 3 1/2" N<sup>o</sup> 3. 2 @ 3" N<sup>o</sup> 4. 2 @ 3"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 6 @ 10" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 6 @ 5" 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 Bilge lines How are they protected Wood & sheathing  
 What pipes pass through the deep tanks Yes 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 No worked from Access from Upper Deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7248 sq. ft.  
 Which Boilers are fitted with Forced Draft All boilers Which Boilers are fitted with Superheaters None  
 No. and Description of Boilers Three cylindrical S.E. Working Pressure 220 lbs  
 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 domestic purposes only 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 3-3-42 Oil fuel Burning Piping Arrangements Yes

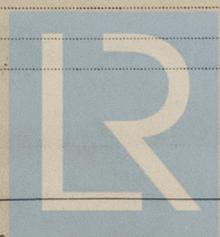
### SPARE GEAR.

Has the spare gear required by the Rules been supplied  
 State the principal additional spare gear supplied

*See Separate List*

The foregoing is a correct description.  
 For JOHN G. KINCAID & CO. LIMITED.  
 Director.

Manufacturer.



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Lloyd's Register Foundation

003341-003348-0018

Dates of Survey while building

During progress of work in shops - - (1942) JUNE 8. 15. 25. JULY 15. 23. 31. AUG. 5. 27. 28. 29. SEPT. 7. 10. 15. OCT. 5. 14. 15. 19. 21. 22. 26. NOV. 2. 17. 20. 25. 26. DEC. 7. 11. (1943) JAN. 5. 6. 8. 11. 14. 19. 22. 25. 26. 27. 28. 29. FEB. 1. 5. 8. 10. 11. 15. 17. 19.

During erection on board vessel - - -

Total No. of visits 44

Dates of Examination of principal parts—Cylinders 25-6-42 Slides 25-6-42 Covers 25-6-42

Pistons 25-6-42 Piston Rods 17-11-42 Connecting rods 17-11-42

Crank shaft 17-11-42 Thrust shaft 17-11-42 Intermediate shafts 26-10-42

Tube shaft ✓ Screw shaft 26-10-42 Propeller 26-10-42

Stern tube 14-10-42 Engine and boiler seatings 25-11-42 Engines holding down bolts 11-1-41

Completion of fitting sea connections 26-11-42

Completion of pumping arrangements 19-2-43 Boilers fixed 8-1-42 Engines tried under steam 19-2-43

Main boiler safety valves adjusted 8-2-43 Thickness of adjusting washers

Crank shaft material S.M.S. Identification Mark 11041 CNH. Thrust shaft material S.M.S. Identification Mark 11407 CNH.

Intermediate shafts, material S.M.S. Identification Marks 10842 CNH. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material S.M.S. Identification Mark 10842 CNH. Steam Pipes, material S.D.S. Test pressure 660 lbs/sq. in. Date of Test 20/11/42 - 29/2/43

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 ✓

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.)

These engines & boilers have been built under special survey in accordance with the Rules & approved plans, the materials & workmanship are sound & good. They have been efficiently installed in the vessel & tested under working conditions on a short sea trial with satisfactory results. The boiler safety valves have been adjusted under steam, accumulation nil.

This machinery is eligible in my opinion to be classed in the Society Register Book with record

+ LMC 2-43 & the notation Screw shaft CL 3 SB; 220 lbs/sq. in. FD

Main & Auxiliary steam pipes S.D.S. "Open Hearth"

Deck steam pipes 6 1/2" 5 1/2" 4 1/2" S.D.S. Open Hearth

Deck steam pipes 4" 3 1/2" 3" 2 3/8" "Bessemer"

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 ... £ 6 : | } When applied for, |
| Special ... .. £ 100 : 9          |                     |
| Donkey Boiler Fee ... .. £ :      | } When received,    |
| Travelling Expenses (if any) £ :  |                     |

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

Committee's Minute GLASGOW 2 MAR 1943

Assigned -1- LMC 2.43 JD

