

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 20522.

Date of writing Report **23.2.1938** When handed in at Local Office **5th March 1938** Port of **Greenwich** Received at London Office **MAR -9 1938**

No. in Survey held at **Greenwich** Date, First Survey **9th June 1934** Last Survey **1st March 1938**

Reg. Book. on the **S/S "Portea"** (Number of Visits **39**)

Built at **Burntisland** By whom built **Burntisland Steel Co.** Yard No. **218** Tons { Gross  
Net

Engines made at **Greenwich** By whom made **Rankin Blackmore & Co.** Engine No. **456** When built **1938**

Boilers made at **ditto** By whom made **ditto** Boiler No. **456** When made **1938**

Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Nom. Horse Power as per Rule **164** Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_

Trade for which Vessel is intended **Foreign**

ENGINES, &c.—Description of Engines **Triple Expansion**

Dia. of Cylinders **16"-24½"-45"** Length of Stroke **33"** No. of Cylinders **3** Revs. per minute \_\_\_\_\_

Crank shaft, dia. of journals **as per Rule 8.988"** Crank pin dia. **9"** Crank webs Mid. length breadth \_\_\_\_\_ No. of Cranks **3**

Intermediate Shafts, diameter **as per Rule 8.66"** **as fitted 8 5/8"** Thrust shaft, diameter at collars **as per Rule 8.988"** **as fitted 9"**

Tube Shafts, diameter **as per Rule \_\_\_\_\_** **as fitted \_\_\_\_\_** Screw Shaft, diameter **as per Rule 9.643"** **as fitted 9 1/16"** Is the **tube** shaft fitted with a continuous liner **yes**

Bronze Liners, thickness in way of bushes **as per Rule .588"** **as fitted .625"** Thickness between bushes **as per Rule .442"** **as fitted .5"** 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 \_\_\_\_\_

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 \_\_\_\_\_

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 \_\_\_\_\_

ft. **90** If so, state type \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller **38 3/4"**

Propeller, dia. **30"** Pitch **13 8/14"** No. of Blades **4** Material **CS** whether Movable **no** Total Developed Surface **60** sq. feet

ed Pumps worked from the Main Engines, No. **2** Diameter **3"** Stroke **15"** Can one be overhauled while the other is at work **yes**

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eed { No. and size **3 - 7 1/2 x 15** Pumps connected to the { No. and size **2 (9 1/2 x 10 x 18) 1 (7 1/2 x 15)**

mps { How driven **Steam** Main Bilge Line { How driven **Steam**

last Pumps, No. and size **1. 9 1/2 x 10 x 18"** Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_

two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_

re Pumps;—In Engine and Boiler Room \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary Pump Room \_\_\_\_\_

In Holds, &c. \_\_\_\_\_

n Water Circulating Pump Direct Bilge Suctions, No. and size **1 - 4"** Independent Power Pump Direct Suctions to the Engine Room Bilges, and size **1 - 3 1/2"**

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes \_\_\_\_\_

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 \_\_\_\_\_

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

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 \_\_\_\_\_

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 \_\_\_\_\_

Pipes pass through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

pipes pass through the deep tanks \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_

ll Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_

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 \_\_\_\_\_

partment to another \_\_\_\_\_ Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_

N BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **2400** # \_\_\_\_\_

reed Draft fitted **yes** No. and Description of Boilers **2 Single ended** Working Pressure **200 lb**

4 REPORT ON MAIN BOILERS NOW FORWARDED? **yes**

4 DONKEY BOILER FITTED? **yes** If so, is a report now forwarded? \_\_\_\_\_

donkey boiler intended to be used for domestic purposes only \_\_\_\_\_

NS. Are approved plans forwarded herewith for Shafting **yes** Main Boilers **yes** Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_

(If not state date of approval) **Certificates** General Pumping Arrangements \_\_\_\_\_ Oil fuel Burning Piping Arrangements **yes**

## SPARE GEAR.

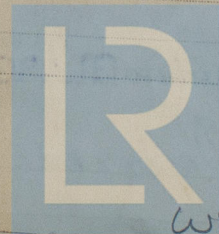
spare gear required by the Rules been supplied \_\_\_\_\_

principal additional spare gear supplied \_\_\_\_\_

The foregoing is a correct description,

RANKIN & BLACKMORE, LTD.

Manufacturer.  
Managing Director.



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Lloyd's Register  
Foundation

W256 0091



(1934) JUNE 9. 14. 24. JULY 16. 22. 24. 28. AUG. 3. 9. 18. 20. 31. SEPT. 3. 15. 23. 29. OCT. 5. 12. 15. 24. NOV. 2. 4. 11. 16. 24. DEC. 2. 4. 16.  
 During progress of work in shops - - (30) (1938) JAN. 10. 14. 19. 24. FEB. 1. 10. 14. 22. MAR. 1.  
 Dates of Survey while building { During erection on board vessel - - - }  
 Total No. of visits 39.

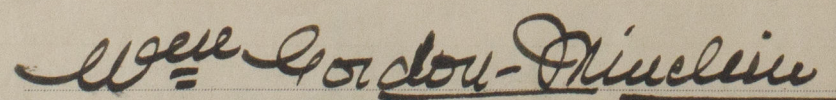
Dates of Examination of principal parts—Cylinders 2. 12. 37 Slides 16. 12. 34 Covers 2. 12. 37  
 Pistons 19. - 1 - 38 Piston Rods 30. 12. 27 Connecting rods 7. 12. 37  
 Crank shaft 1. 2. 38 Thrust shaft 10. 2. 38 Intermediate shafts 10. 2. 38  
 Tube shaft ✓ Screw shaft 22. 2. 38 Propeller 22. 2. 38  
 Stern tube 22. 2. 38 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 S Identification Mark LR 13170. WGM Thrust shaft material S Identification Mark LR 13164 WGM  
 Intermediate shafts, material S Identification Marks 13240. 13241 LR 13395-6-7 WGM Tube shaft, material ✓ Identification Mark -  
 Screw shaft, material S Identification Mark LR 13394 WGM Steam Pipes, material ✓ Test pressure - Date of Test -  
 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 - 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 Buguin & Bordin have been built under special survey in accordance with the approved plans & the workmanship & material are of good quality. They have now been shipped to Burundiland for fitting on board. The machinery is eligible in my opinion for the record of  LMC with date (Notation of 2 8 3 (Spt) when they have been securely fitted on board, tried under steam & found satisfactory.

The amount of Entry Fee ... £ 3 - - : When applied for,  
 Special 4/5<sup>th</sup> rate £ 33 - 8 : 5<sup>TH</sup> MARCH 1938  
 Donkey Boiler Fee 1/4<sup>th</sup> rate £ 8 - 7 :  
 Travelling Expenses (if any) £ : : 16. 4 1938 19. 4

Committee's Minute GLASGOW 8-MAR 1938

Assigned Deferred

  
 Alfred Gordon-Maclean  
 Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 26 APR 1938  
 See F.E. memo