Rpt. 4.

No. 32331

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAR 14 1938

Date of writing Report ____ 19__ When handed in at Local Office 12 MAR. 1938 Port of Sunderland. Apl Apl 21

No. in Reg. Book. Survey held at Sunderland. Date, First Survey Aug 16 '37 Last Survey Mch 10 1938 (Number of Visits 54)

on the twin screw Sliaper "ROSALIA" Tons Gross ____ Net ____

Built at Haverton Hill on Tees By whom built Furness Shipbuilding Co Ltd Yard No. 248 When built 1938.

Engines made at Sunderland By whom made Richardsons Westgarth & Co Ltd Engine No. 2690 When made 1938.

Boilers made at Renfrew. By whom made Babcock & Wilcox Ltd. Boiler No. ____ When made 1938

Registered Horse Power ____ Owners Curacaosche Scheepvaart Mij Port belonging to Willemstad

Nom. Horse Power as per Rule 366 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Trade for which Vessel is intended Ocean going. 27 9/16.

ENGINES, &c.—Description of Engines Twin Screw triple Expansion marine type. Revs. per minute ____

Dia. of Cylinders 39 3/16 - 25 - 40 3/16 Length of Stroke 40" No. of Cylinders 6. No. of Cranks 6.

Crank shaft, dia. of journals as per Rule 20" as fitted 21" Crank pin dia. 21" Crank webs Mid. length breadth 40" Mid. length thickness 14" shrunk Thickness parallel to axis 14" Thickness around eye-hole 9 3/4"

Intermediate Shafts, diameter as per Rule 14.494" as fitted 14.717"

Thrust shaft, diameter at collars as per Rule 20" × 21 Approved. (2.6.37) as fitted 20 8.5" See Std letter 18.3.38

Tube Shafts, diameter as per Rule ____ as fitted ____ **Screw Shaft,** diameter as per Rule 8.285" as fitted 8.583" Is the {tube / screw} shaft fitted with a continuous liner? Yes.

Bronze Liners, thickness in way of bushes as per Rule ____ as fitted .551" Thickness between bushes as per Rule ____ as fitted .591" Is the after end of the liner made watertight in the 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? ____

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 shaft Yes. If so state type Vickers Seal Ring Length of Bearing in **Stern Bush** next to and supporting propeller 33 1/4"

Propeller, dia. 9'6" Pitch variable No. of Blades 4 Material Bronze whether Moveable No. Total Developed Surface ____ sq. feet

Feed Pumps worked from the **Main Engines,** No. 1 each Eng. Diameter 140 m/m Stroke 120 m/m Can one be overhauled while the other is at work Yes.

Bilge Pumps worked from the **Main Engines,** No. 1 each Eng. Diameter 140 m/m Stroke 120 m/m Can one be overhauled while the other is at work Yes.

Feed Pumps No. and size 2-6.7" Dia x 4.7½" How driven main engines **Pumps** 2.10½ x 8 x 22" Duplex. Steam. connected to the **Main Bilge Line** No. and size 2.6.69" Dia x 4.72" How driven main engines One 8" x 10" x 10" steam

Ballast Pumps, No. and size One 8" x 10" x 10" **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 4 - 3" Dia

In Pump Room 2 @ 2" For'd pump room. In Holds, &c. Fore peak 3½", For'd cofferdam 1 @ 4" After peak 1 @ 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One. 10" **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size One, 6" 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 rail 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 ____

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 — 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 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 None. Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 6520 ft

Is Forced Draft fitted Yes. No. and Description of Boilers Two, water tube Working Pressure 180 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? —

Is the donkey boiler intended to be used for domestic purposes only —

PLANS. Are approved plans forwarded herewith for Shafting Yes. (If not state date of approval) Main Boilers — Auxiliary Boilers — Donkey Boilers —

Superheaters — General Pumping Arrangements Yes. 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 One screw shaft and a section of crank shaft.

RICHARDSONS, WESTGARTH & Co. Ltd. SUNDERLAND

John H Meek

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops: 1937. Aug. 16. 20. 23. 27. 30. 31. Sep. 7. 14. 20. 27. Oct. 6. 12. 18. 25. Nov. 2. 8. 15. 23. 29. Dec. 7. 13. 21. 28. 1938. Jan. 11. 17. 24. 31. Feb. 7. 14. 21. 22. 28. Mch. 7. 10.

During erection on board vessel: 1938 Mar. 28. 29. 31. Apr. 1. 5. 7. 8. 11. 12. 14. 21.

Total No. of visits 34 + 11 = 45

Dates of Examination of principal parts—Cylinders 18/10/37 15/11/34 14/2/38 22/2/38 Slides 24/1/38. Covers 24/1/38.

Pistons 28/12/34. Piston Rods 11/1/38 Connecting rods 21/2/38. 14/2/38.

Crank shaft 8/1/38 26/1/38 (W. Hpl.) Thrust shafts 22/2/38. Intermediate shafts 21/2/38 9/3/38

Tube shaft ✓ Screw shaft 17/1/38. 17/2/38 8/3/38. Propeller 17/2/38.

Stern tube 21/2/38 Engine and boiler seatings 28/3/38. Engines holding down bolts 1/4/38.

Completion of fitting sea connections 25-2-38

Completion of pumping arrangements 12/4/38 Boilers fixed 31/3/38. Engines tried under steam 12/4/38.

Main boiler safety valves adjusted 12/4/38. Thickness of adjusting washers P. Blr. P & S 1/4" S. Blr. P & S 5/16"

Crank shaft material Ingot Steel Identification Mark PORT No 2690 8/1/38 F.B.S. Thrust shaft material Ingot Steel Identification Mark P. No 34 S. No 35 WHF 22/2/38.
ST. D No 2690 26/1/38

Intermediate shafts, material Ingot steel Identification Marks 40. TWB. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Ingot Steel Identification Mark 90. 91. 93. TWB. Steam Pipes, material Steel Test pressure 540 lbs. Date of Test 5-4-38 8-4-38 11-4-38.

Is an installation fitted for burning oil fuel Yes. ✓ Is the flash point of the oil to be used over 150°F. Yes. ✓

Have the requirements of the Rules for the use of oil as fuel been complied with Yes. ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Oil Tanker ✓ 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 S.S. "Rebeca". Sld Rpt No 52285.

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

This machinery has been built under Special Survey in accordance with the Rules of the Society. ✓

The materials & workmanship are good. ✓

The machinery has been despatched to Middlesbro' for installation on board the vessel & will then be Eligible in my opinion to have notation ✠ LMC (with date) in the Register Book. ✓

The Engines & Boilers have been installed at West Hartlepool under Special Survey and upon completion examined under full working conditions and found satisfactory and it is now Recommended that they be classed in the Register Book with notations + LMC 3.38. W.T.B. C.L.

4.38.

SUNDERLAND.

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 : :

2/5 Special ... ... £31 : 19 :

Donkey Boiler, ~~Oil fuel~~ ... £13 : 15 :

Travelling Expenses (if any) £ : :

When applied for, 12 MAR 1938

When received, £36.19 Pd 4/5/38 Jmk £13.15 Pd 10/5/38 Jmk

TUE 3 MAY 1938

Committee's Minute

Assigned + Lmb. 4.38 Fitted for oil fuel 4.38 + C. W.T.B. C.L.

J. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.