

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

6 SEP 1929

Date of writing Report 19 When handed in at Local Office 5/9 19 Port of Antwerp  
 No. in Survey held at Seraing - Antwerp Date First Survey 10-10-27 Last Survey 7-8-1929  
 Reg. Book 6641 on the Steel hull of S. Leopoldville (Number of Visits 39) Gross 11000 Tons  
 Built at Hoboken By whom built H. A. M. John Cockerill Yard No. 623 When built 1929  
 Engines made at Seraing By whom made H. A. M. John Cockerill Engine No. 5924/3 when made 1929  
 Boilers made at Seraing By whom made H. A. M. John Cockerill Boiler No. 5281/6 when made 1929  
 Registered Horse Power Owners C. Belge Maritime du Congo Port belonging to Antwerp  
 Nom. Horse Power as per Rule 1019 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes  
 Trade for which Vessel is intended Antwerp - Congo

Engines, &c. Description of Engines Reciprocating quadruple expansion twin screw Revs. per minute 96  
 Dia. of Cylinders 605-860-1230-1750 Length of Stroke 1220 No. of Cylinders 4 each eng. No. of Cranks 4 each eng.  
 Crank shaft, dia. of journals as per Rule 325% Crank pin dia. 356% Crank webs Mid. length breadth 496% Thickness parallel to axis 232%  
 Intermediate Shafts diameter as per Rule 310% Thrust shaft, diameter at collars as per Rule 325%  
 Tube Shafts, diameter as per Rule 346% Is the tube shaft fitted with a continuous liner? Yes  
 Bronze Liners, thickness in way of bushes as per Rule 18% Thickness between bushes as per Rule 13.5% 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 cont. liner  
 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 Is an approved Oil Gland or other appliance fitted at the after  
 end of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller 1640%  
 Propeller, dia. 5200% Pitch 5270% No. of Blades 3 Material Bronze whether Movable Yes Total Developed Surface 6.66 m<sup>2</sup>  
 Feed Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work  
 Bilge Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work  
 Feed Pumps No. and size 4 off 1 1/2" x 7" x 9" x 21" Pumps connected to the Main Bilge Line No. and size 6 off 1 1/2" x 14" x 24" - 1:8 x 10" x 22" = 6 1/2" x 7" x 15"  
 How driven Main steam driven How driven 5 steam driven 1 S.O.S. pump electric driven 5"  
 Ballast Pumps, No. and size 3 off 1 1/2" x 14" x 24" - 2:7 x 9" x 21" 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 10 x 3 1/2"  
 In Holds, &c. 21 x 3 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 x 10" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 x 2 1/2" and 2 x 5 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 valves and cocks  
 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 pass through the bunkers air and sounding pipes How are they protected with steel casings  
 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 Yes Is it fitted with a watertight door Yes worked from E.R. Trunk by  
 electrically operated by hand from Main E.R.

MAIN BOILERS, &c. - (Letter for record S.) Total Heating Surface of Boilers 14850 m<sup>2</sup> Working Pressure 15.25 Ks  
 Is Forced Draft fitted Yes No. and Description of Boilers 6 Multitubular single ended 658 216  
 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 General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

## SPARE GEAR. State the articles supplied:-

Two propeller shafts 4 propeller blades, two bottom end braces, 1 circulating pump  
 impeller shaft and impeller for same, one impeller shaft for circ. pump for auxil.  
 condenser, 1 H.P. and 1 J.P. valve spindle, 2 check valves, 4 top end bolts + nuts  
 10 bottom end bolts and nuts, two main bearing bolts and nuts  
 coupling bolts for crank shaft, 6 coupling bolts for tunnel shaft, 1 set of suction  
 and delivery valves for all auxil. pumps, 1 set of piston springs, 6 crank ring bolts  
 cyl. cover studs, 24 plain boiler tubes, 18 stay tubes, 6 boiler safety valve springs  
 50 main condenser tubes and ferrules, 50 aux. condenser tubes and ferrules  
 quantity of assorted bolts and nuts and iron of various sizes

The foregoing is a correct description,  
 SOCIÉTÉ ANONYME JOHN COCKERILL  
 Le Secrétaire, L'Ad. Directeur Général,  
 John Cockerill

Manufacturer.



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Lloyd's Register  
Foundation

W251-0156



10/10/27 - 20/10 - 4/11 - 12/12  
 26/1/28 - 6/2 - 21/2 - 29/2 - 12/3 - 23/3 - 29/3 - 1/5 - 3/5 - 10/5 - 26/6

Dates of Survey while building  
 During progress of work in shops -  
 During erection on board vessel -  
 Total No. of visits 39.

Dates of Examination of principal parts - Cylinders 12/12/27 14/1/28 17/4/28 12/3/28 Slides 14/1/28 - 12/3/28 Covers 12/12/27 14/1/28 17/4/28

Pistons 1/5/28 Piston Rods 1/5/28 - 10/5/28 Connecting rods 1/5/28 - 10/5/28

Crank shaft 29/2/28 Thrust shaft 29/2/28 Intermediate shafts 19/2/28

Tube shaft - Screw shaft 1/5/28 Propeller 1/5/28

Stern tube Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections 17/9/28

Completion of pumping arrangements 8/3/29 Boilers fixed 14/5/29 Engines tried under steam 25.26/7/29

Main boiler safety valves adjusted 9-16/7/29 Thickness of adjusting washers PFB: 11.8 12.5 13.5 14.5 15.5 16.5 17.5 18.5 19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5 29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5 39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5 59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5 69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5 79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5 88.5 89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5 99.5

Crank shaft material J.M. Steel Identification Mark N4 N:39 Thrust shaft material 1 M. Steel Identification Mark 56.57

Intermediate shafts, material J.M. Steel Identification Mark 52.53 47.49 Tube shaft, material - Identification Mark -

Screw shaft, material 1 M. Steel Identification Mark 44.5-74.6 Steam Pipes, material 1 M. Steel Test pressure 50 atm Date of Test 1/2/29

Is an installation fitted for burning oil-fuel new dismantled 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 7/2

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

Is this machinery duplicate of a previous case name If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The materials and workmanship are good and have been tested by the Society's surveyors. The machinery has been made under special survey. The Engines fitted satisfactorily in the vessel have afterwards been tried under steam with satisfactory results.

The machinery of this vessel is in good condition, and eligible in my opinion to have the record of -i- L.M.C. in the Society's Register Book.

1st Entry £1050-  
 The amount of Entry Fee £  
 Special Survey £21958-  
 Donkey Boiler Fee £4640-  
 Travelling Expenses (if any) £3517-  
 When applied for, 26-8-1929  
 When received, 30/9/29

Committee's Minute FRI. 13 SEP 1929

Assigned see Minute on Ant. Rpt 165-88

Engineer Surveyor to Lloyd's Register of Shipping

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