

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

25 OCT 1932

Date of writing Report 22-10-1932 When handed in at Local Office 22 - 10 - 1932 Port of LISBON.

No. in Survey held at LISBON. Date, First Survey 27 - 8 - 31 Last Survey 22 - 10 - 1932
Reg. Book. 67809 on the Steel Twin Screw Steamer "MOÇAMBIQUE" (Number of Visits 17)

Built at Glasgow By whom built A. Stephen & Sons, Ltd. Yard No. 427 Tons { Gross 6052
Net 3770

Engines made at Glasgow. By whom made A. Stephen & Sons, Ltd. Engine No. 427 When built 1909

Boilers made at Glasgow. By whom made A. Stephen & Sons, Ltd. Boiler No. 427 when made 1909

Registered Horse Power Owners Cia. Nacional de Navegação. Port belonging to LISBON.

Nom. Horse Power as per Rule 1282 770 NHP Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Trade for which Vessel is intended Passengers and general cargo to Portuguese West and East Africa.

ENGINES, &c.—Description of Engines Two sets of Steam Reciprocating Inverted Cyl. triple per minute 90

Dia. of Cylinders 22, 36; 60 Length of Stroke 48 No. of Cylinders 6 No. of Cranks 6

Crank shaft, dia. of journals as per Rule 12.3 Crank pin dia. 12 7/16" Crank webs Mid. length breadth 16 3/4" Thickness parallel to axis 8" as fitted 12.5

Intermediate Shafts, diameter as per Rule 11 3/4" as fitted 12 1/16" Thrust shaft, diameter at collars as per Rule 12.3" as fitted 12.3"

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 13" as fitted 13 5/8" Is the { tube } shaft fitted with a continuous liner { screw } Yes.

Bronze Liners, thickness in way of bushes as per Rule .7" as fitted 3/4" Thickness between bushes as per Rule .52 as fitted 5/8" 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 -

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 No If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 4'-6 3/8"

Propeller, dia. 15.8" Pitch 17'-9" No. of Blades 3 Material Bronze whether Movable Yes Total Developed Surface sq. feet

Feed Pumps worked from the Main Engines, No. 2 Rams Diameter 4" Stroke 27" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Rams Diameter 4 1/4" Stroke 27" Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size 2 Weirs 12"x9 1/4" x23 1/2" Pumps connected to the { No. and size One 9"x12"x10"Duplex-One 7 1/2"x5"x12"Duplex
How driven Direct - Steam Main Bilge Line How driven Direct - Steam

Ballast Pumps, No. and size One 9"x12"x10"Duplex 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 Two of 3 1/2", Two direct 3 1/2".

In Holds, &c. No. 1. 3 1/2" P. & S; No. 2, 3 1/2" P. & S; No. 3, 3 1/2" P. & S; No. 4, One 3 1/2" Centre.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 of 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two of 3 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 No.

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 Level.

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.

Do Pipes pass through the bunkers None. How are they protected -

Do 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 Cylinder tops gratings

MAIN BOILERS, &c.—(Letter for record 20-8-31 Total Heating Surface of Boilers 11809 sq. ft.)

Forced Draft fitted Yes. No. and Description of Boilers 6, Return Tube, Single Ended Working Pressure 190 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

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

PLANS. Are approved plans forwarded herewith for Shafting - Main Boilers 24-8-31 Auxiliary Boilers - Donkey Boilers -

(If not state date of approval)

Superheaters - General Pumping Arrangements 24-8-31 Oil fuel Burning Piping Arrangements -

SPARE GEAR. State the articles supplied:—

Screw shafts; 6 Iron propeller blades; 1 set rings for each piston; 6 slide rods; 1 set Bottom end
brasses; top half main bearing; 1 crank; rings for 1 H.P. piston valve; 2 eccentrics; 2 Bottom end
bolts; 2 top end bolts; 2 main bearing bolts; 2 ecc. bolts; 20 coupling bolts; 6 junk ring bolts;
guide bolts; 57 holding down bolts; 20 eccentric strap bolts; U.S. Metallic packing; 1 set cross-
head brasses; 8 feed check valves;

The foregoing is a correct description,

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - { During erection on board vessel - - - { Total No. of visits 17

Dates of Examination of principal parts—Cylinders Slides Covers
Pistons Piston Rods Connecting rods
Crank shaft Thrust shaft Intermediate shafts
Tube shaft Screw shaft Propeller
Stern tube Engine and boiler seatings Engines holding down bolts
Completion of fitting sea connections Boilers fixed Engines tried under steam
Completion of pumping arrangements Thickness of adjusting washers
Main boiler safety valves adjusted Identification Mark Thrust shaft material Identification Mark
Crank shaft material Identification Marks Tube shaft, material Identification Mark
Intermediate shafts, material Identification Mark Steam Pipes, material Test pressure Date of Test
Screw shaft, material Identification Mark Is the flash point of the oil to be used over 150°F.
Is an installation fitted for burning oil fuel 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
Is this machinery duplicate of a previous case If so, state name of vessel

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

Examined cylinders, pistons, valves, crank, thrust and tunnel shafts, air, feed, circulating and bilge pumps and valves, condensers under test, pumping arrangements and auxiliaries, electric light and spares.

Main steam pipes examined in place.

Vessel placed in dry dock. Examined screw shafts, propellers, stern tubes and bushes, bilge injections, sea valves, cocks and outside fastenings.

Bilge and ballast pipe lines examined and found satisfactory.

Strums in all hold suctions in good condition.

The machinery and workmanship are of good description.

The machinery examined under working conditions and found satisfactory and is eligible in my opinion to be classed L.M.C. 10,32. T.S. C.L. 10,32.

This Office.

Certificate to be sent to The amount of Entry Fee ... £ : : When applied for, Special ... £ : : 19. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 19.

Committee's Minute 24 FEB 1933

Assigned L.M.C. 8.31

5.9.31

C.L. F.D

TUE. 22 AUG 1933

Engineer Surveyor to Lloyd's Register of Shipping.



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