

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office, NEWCASTLE-ON-TYNE

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No. in Survey held at Wallsend / Tyne. Date, First Survey Mar 20<sup>th</sup> Last Survey June 29<sup>th</sup> 1950  
 Reg. Book 36504 on the SS. ESSO LIVERPOOL ex. John D. Archbold. Tons Gross 1921  
 Appen. 36504 on the SS. ESSO LIVERPOOL ex. John D. Archbold. Tons Net 1921  
 Built at Newport News USA By whom built Newport News Ship B.S.D.D.O. Yard No. ✓ When built 1921  
 Engines made at " " " By whom made " " " " Engine No. ✓ When made 1921  
 Boilers made at " " " By whom made " " " " Boiler No. ✓ When made 1921  
 Registered Horse Power ✓ Owners Anglo American Oil Co Ltd. Port belonging to London.  
 Nom. Horse Power as per Rule MN. 858 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 Twin Screw. Steam Reciprocating. Triple Exp. Revs. per minute 80 RPM.  
 Dia. of Cylinders HP. 23" LP 39" LP 68" Length of Stroke 45" No. of Cylinders 6. (3x2) No. of Cranks 6.  
 Crank shaft, dia. of journals as per Rule 13" Crank pin dia. 13" Mid. length breadth 26" Thickness parallel to axis 8 3/4"  
 as fitted 13" Crank webs Mid. length thickness 8 3/4" shrunk Thickness around eye-hole 5 1/2" 6 1/2"  
 Intermediate Shafts, diameter as per Rule 12.2" Thrust shaft, diameter at collars as per Rule 12.8"  
 as fitted 12 1/2" as fitted 13"  
 Tube Shafts, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 14.1" Is the tube shaft fitted with a continuous liner ✓  
 as fitted ✓ as fitted 14 1/2" at top of cone + 12 1/2" coupling as per Rule 542" as fitted ✓  
 Bronze Liners, thickness in way of bushes as per Rule .725" Thickness between bushes as per Rule .468" Is the after end of the liner made watertight in the propeller boss yes  
 as fitted .75" as fitted .468" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner lapped 1/2. Tapped 1/2.  
 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 at ✓ If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 5 1/3"  
 Propeller, dia. 16'-6" Pitch 15'-6" No. of Blades 3. Material Bronze whether Moveable Fixed Total Developed Surface 74.9 sq. feet  
 Feed Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓  
 Bilge Pumps worked from the Main Engines, No. One S. only Diameter 4 1/2" Stroke 20" Can one be overhauled while the other is at work ✓  
 Feed Pumps { No. and size 3: 14" x 9" by 24" stroke Pumps connected to the Main Bilge Line { No. and size 1 Bilge 6" stroke. 1 Ballast 8" stroke. 1 Bilge (above) 12" stroke.  
 How driven Steam How driven Steam Steam M.E.  
 Ballast Pumps, No. and size One: 8" bore 12" stroke Lubricating Oil Pumps, including Spare Pump, No. and size ✓  
 Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps: —In Engine and Boiler Room 3 - 3 1/2"  
 In Pump Room Main Pump Room 2-6" 72-2" Equal Holds, &c. 7d Pump room 2-3"  
 No 1 hold 2-3" No 2 hold 2-3"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 2. 9" Independent Power Pump Direct Suctions to the Engine and Boiler Room Bilges, No. and size 1-3 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 yes  
 Are all Sea Connections fitted direct on the skin of the ship To boxes & skin Are they fitted with Valves or Cocks Valves  
 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 None 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 ✓ Is it fitted with a watertight door worked from

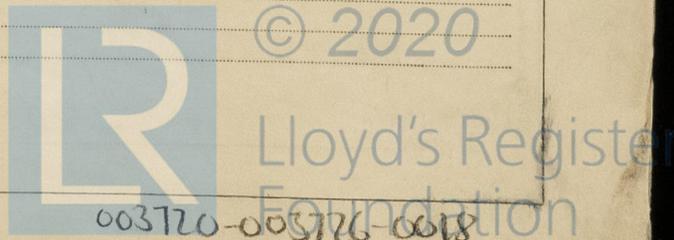
MAIN BOILERS, &c.—(Letter for record ✓) Total Heating Surface of Boilers 3 boilers: 12090 sq. ft.  
 Which Boilers are fitted with Forced Draft all Which Boilers are fitted with Superheaters None  
 No. and Description of Boilers 3 Scotch boilers Working Pressure 200 lb/19"  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? No (Removed from vessel) so, is a report now forwarded? ✓  
 Can the donkey boiler be used for other than domestic purposes ✓  
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers ✓ Donkey Boilers Removed  
 (If not state date of approval)  
 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 Two sets of propeller blades with fastenings.  
Two complete bottom end bearings.  
Two " top end bearings.  
Sets of Piston rod packing.  
Two sets of coupling bolts.  
Feed & Bilge Pump Valves & seats.  
Oil fuel burning Nozzles & Atomisers.  
Number of boiler tube stoppers.

The foregoing is a correct description.

Manufacturer.



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

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  
 Completion of pumping arrangements Boilers fixed Engines tried under steam *June 27<sup>th</sup> '50.*  
 Main boiler safety valves adjusted *June 26<sup>th</sup> '50* Thickness of adjusting washers  
 Crank shaft material Identification Mark Thrust shaft material Identification Mark  
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark  
 Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test  
 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  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  If so, state name of vessel

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

The Machinery & boilers of this vessel were built under the supervision of the American Bureau of Shipping; The scantlings & arrangements of the Machinery & boilers, have been checked with the attached noted drawings, as far as practicable, & found to conform to same. All Machinery & boilers have been examined opened up, & found & now placed in good order. The donkey boiler originally fitted, has been removed at this port. (Scrap.) Instructions as per Secretary's letters have been complied with. The Foamite fire extinguishing system (2 - 1,500 gall tanks on load deck), & large <sup>tank</sup> steam smothering arrangements, O.F. Unit deck controls, all examined & tested & found satisfactory. The Main & Aux. Machinery were examined under working conditions alongside the Quay & found satisfactory, & is eligible in my opinion to have be classed with the records LMC 6/50. TS (P75) 6/50, Fitted for Oil Fuel F.P. above 150°F.

The amount of Entry Fee ... £ *See Apr 29* : When applied for,  
 Special ... £ : : 19.  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : : When received, 19.

*James Walker*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Date

FRI, 6 OCT 1950

Committee's Minute

*See minute on fe. rpl*



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