

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 627 JAN 1945

Date of writing Report 1944 When handed in at Local Office 25.1.1944 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 2.6.1941 Last Survey 24-1-1944
 Reg. Book (Number of Visits 101)
 Tons { Gross 7201 Net 4935
 on the S.S. "EMPIRE KUMASI"
 Built at Port Glasgow By whom built Wm. Hamilton & Co. Ld. Yard No. 465 When built 1944
 Engines made at Glasgow By whom made Fairfield S.B. & Co. Ld. Engine No. 699 When made 1943
 Boilers made at Glasgow By whom made Messrs. David Rowan & Co. Ld. Boiler No. 1163 When made 1944
 Registered Horse Power Owners Ministry of War Transport Port belonging to Greenock
 Nom. Horse Power as per Rule 558 510 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended International

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute
 Dia. of Cylinders 24 1/2" - 30" - 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 14 1/4" as fitted 14 1/4" Crank pin dia. 14 3/4" Mid. length breadth 27 1/2" Thickness parallel to axis 9"
 Crank webs Mid. length thickness 9" shrunk Thickness around eye-hole 6 3/8"
 Intermediate Shafts, diameter as per Rule approved Thrust shaft, diameter at collars as per Rule approved
 as fitted 13 7/8" as fitted 14 1/4"
 Tube Shafts, diameter as per Rule approved Screw Shaft, diameter as per Rule approved
 as fitted 15 1/4" Is the { tube } shaft fitted with a continuous liner { screw } Yes
 Bronze Liners, thickness in way of bushes as per Rule 13/16" Thickness between bushes as per Rule 3/4" 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 No
 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 no
 If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5'-1" ✓
 Propeller, dia. 18'-3" Pitch 16'-2" No. of Blades 4 Material Cast Iron whether Moveable no Total Developed Surface 110 sq. feet
 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. 2 Diameter 4" Stroke 27" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size Pumps connected to the { No. and size
 How driven Main Bilge Line { How driven
 Ballast Pumps, No. and size 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
 In Pump Room In Holds, &c.

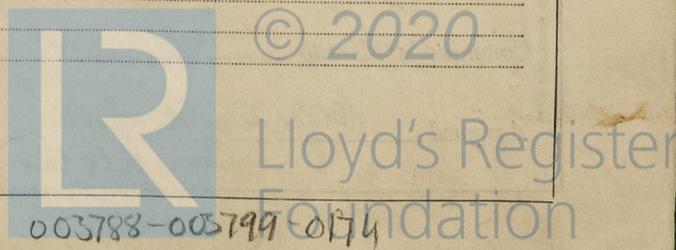
Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Are 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
 Are 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
 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
 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 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
 Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters
 No. and Description of Boilers Working Pressure
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS A DONKEY BOILER FITTED? If so, is a report now forwarded?
 Can the donkey boiler be used for domestic purposes only
 PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied
 State the principal additional spare gear supplied

The foregoing is a correct description.
 For The FAIRFIELD SHIPBUILDING & ENGINEERING Co. Ltd.,
 Joint Managing Director Manufacturer.



Dates of Survey while building

During progress of work in shops - - { 1941 Jan 3, 13, 16, 17, 26, 27, 30 Jul 2, 14, 16, 29 Aug 5, 11, 19, 22, 27 Sep 2, 9, 17, 22 Oct 10, 17, 20, 24, 27, 27 Nov 3, 5, 6, 7, 18, 21, 25, 26 Dec 3, 5, 8, 9, 11, 12, 15, 16, 18, 19, 21, 30, 1942 Jan 5, 6, 13, 14, 22, 27, 30 Feb 2, 8, 11, 16, 24 Mar 2, 6, 9, 10, 11, 13, 27, 30, 31 Apr 2, 27 May 6, 8, 11, 13, 15, 22, 26 Jun 1, 3, 8, 11, 17, 22 Jul 1, 3, 21, 23, 31 Aug 5, 8, 19, 24 Sep 4, 22 Dec 14, 1942 Jan 24

During erection on board vessel - - - {

Total No. of visits 101

Dates of Examination of principal parts - Cylinders 11-3-42 Slides 1-6-42 Covers 27-3-42

Pistons 27-3-42 Piston Rods 11-6-42 Connecting rods 9-12-41

Crank shaft 13-3-42 Thrust shaft 19-8-42 Intermediate shafts 19-8-42

Tube shaft - Screw shaft 24-1-44 Propeller 24-1-44. Not used with engines No 699

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. Main boiler safety valves adjusted. Thickness of adjusting washers.

Crank shaft material J. steel Identification Mark LLOYDS N°10895 L.C.D. 13-3-42 Thrust shaft material J. steel Identification Mark LLOYDS N°10895 L.C.D. 19-8-42

Intermediate shafts, material J. steel Identification Marks LLOYDS N°10895 L.C.D. 13-3-42 Tube shaft, material Identification Mark LLOYDS N°10895 L.C.D. 19-8-42

Screw shaft, material J. steel Identification Mark LLOYDS N°10895 G.H.M. 24-1-44 Steam Pipes, material Test pressure. Date of Test

Is an installation fitted for burning oil fuel. See note at end of report re screw shaft. 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. yes. If so, state name of vessel. Baledon St. Co's N° 401 (B.C. Survey). GLO Rpt. N° 6479 vessel

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

The materials and workmanship are good.

The machinery has been constructed under special survey and in accordance with the A.M.S. specification. It will now be transferred, ex Admiralty Reserve, to Messrs David Rowan & Co. Ltd. to be fitted in the vessel.

The screw shaft and propeller originally made for these engines and included in this report, will not be used.

Upon completion of fitting on board and satisfactory trials, the machinery will in my opinion be eligible for Classification and the Record of L.M.C. (with details)

The amount of Entry Fee ... £ 6 : : When applied for, 25 JAN 1944

Special Specification ... £ 40 : 5 : : When received, Mar 1944

Donkey Boiler Fee ... £ 10 : - : : Mar 1944

Travelling Expenses (if any) £ : : : Mar 1944

L. C. Davis,
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... GLASGOW 25 JAN 1944

Assigned ... deferred for Completion

