

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 1 on the S.S. "EMPIRE KUMASI" (Number of Visits 101)

Built at Glasgow By whom built Wm Hamilton & Co Ltd. Yard No. 465 Tons { Gross 7201 Net 4935 } When built 1944

Engines made at Glasgow By whom made Fairfield S&E Co Ltd. Engine No. 699 When made 1943

Boilers made at Glasgow By whom made Messrs John Brown & Co Ltd. 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

Dia. of Cylinders 24 1/2" - 30" - 70" Length of Stroke 48" No. of Cylinders 3 Revs. per minute 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 as fitted 13 7/8" Thrust shaft, diameter at collars as per Rule approved as fitted 14 1/4"

Tube Shafts, diameter as per Rule as fitted 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 1/16" as fitted 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 No

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 { 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.



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Lloyd's Register
Foundation

003788-003799-0174

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.
Completion of pumping arrangements.
Main boiler safety valves adjusted.
Boilers fixed.
Engines tried under steam.
Crank shaft material J. steel Identification Mark LLOYDS N°10895 L.C.D. 13-3-42 Thickness of adjusting washers
Intermediate shafts, material J. steel Identification Marks LLOYDS N°10895 L.C.D. 13-3-42 Thrust shaft material J. steel Identification Mark
Screw shaft, material J. steel Identification Mark LLOYDS N°10895 L.C.D. 24-1-44 Tube shaft, material Identification Mark
Is an installation fitted for burning oil fuel. Steam Pipes, material See note at end of report re screw shaft Test pressure Date of Test 19-8-42
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. R-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 + LMC (with d)

The amount of Entry Fee ... £ 6 :
Special ... £ 40 : 5
Donkey Boiler Fee ... £ 10 : -
Travelling Expenses (if any) £ :
When applied for, 25 JAN 1944
When received, Mar 1 1944

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

Committee's Minute GLASGOW 25 JAN 1944
Assigned Supplied for Completion