

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19 Aug 1947 When handed in at Local Office Sunderland Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 19 Aug 46 Last Survey 29 31 July 1947
 Reg. Book "LAGOSIAN" (Number of Visits 61)
 Built at Sunderland By whom built Shipbuilding Corp. (Heam Branch) Yard No. " Tons {Gross 5106.5
 Engines made at Bolton By whom made Hick Hargreave & Co Engine No. E 156 When built 1917
 Boilers made at Sunderland By whom made G. Clark (1938) Ltd Boiler No. 1361 When made "
 Registered Horse Power 620 Owners United Africa Co Ltd Port belonging to Liverpool
 Nom. Horse Power as per Rule 620 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
 Trade for which vessel is intended NHP = 525

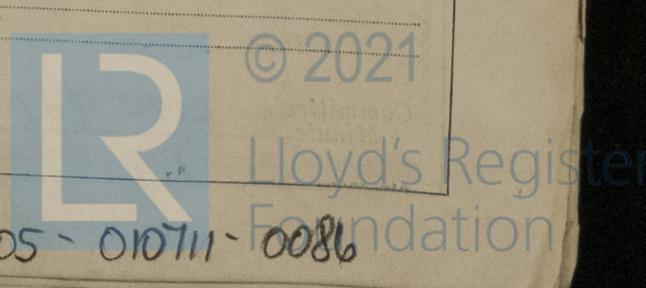
ENGINES, &c.—Description of Engines (Please see attached Rpt. No 11269)
 Dia. of Cylinders 23 1/2 - 34 1/2 - 68 Length of Stroke 48 No. of Cylinders 4 Revs. per minute 110
 Crank shaft, dia. of journals as per Rule 13 3/4 Crank pin dia. " Crank webs Mid. length breadth " Thickness parallel to axis "
 Intermediate Shafts, diameter as per Rule 13 Thrust shaft, diameter at collars as per Rule 13 3/4
 Tube Shafts, diameter as fitted " Screw Shaft, diameter as per Rule 14 3/4 Is the tube shaft fitted with a continuous liner Yes.
 Bronze Liners, thickness in way of bushes as per Rule 3/4 Thickness between bushes as per Rule 1/16 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 one length.
 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 Yes. Is an approved Oil Gland or other appliance fitted at the after end of the tube at Yes.

Propeller, dia. 14' 10 1/2 Pitch 10-27-14 1/4 No. of Blades 4 Material Bronze Length of Bearing in Stern Bush next to and supporting propeller 4' 4"
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes.
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes.
 Feed Pumps { No. and size 2 @ 4" x 9 1/2" x 21" Pumps connected to the Main Bilge Line { No. and size Qu. Ser. 8" x 5 1/2" x 8" + Ballast Pump.
 How driven Steam How driven Steam
 Ballast Pumps, No. and size 1 @ 9" x 15" x 12" Lubricating Oil Pumps, including Spare Pump, No. and size "
 Are two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected both to Main Bilge Pumps and Auxiliary Pump Room 3 @ 3 1/4" E.R. 2 @ 3" in Bld. Room Tunnel well 2 1/2"
 Bilge Pumps:—In Engine and Boiler Room 3 @ 3 1/4" E.R. In Holds, &c. N°1. 3" φ 15. N°2. 3" φ 15. N°3. 3" φ 15.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size "
 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.
 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.
 That Pipes pass through the bunkers none How are they protected "
 That pipes pass through the deep tanks In hold bilge Suctions Have they been tested as per Rule Yes.
 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.

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers Main 5914 sq. Aux. 1914 sq. Superheaters 2100 sq.
 Which Boilers are fitted with Forced Draft all. Which Boilers are fitted with Superheaters Yes.
 No. and Description of Boilers 2 SB + 1 Aux Working Pressure 220 lbs.
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes. British Corporation Certificate British Corp. Cert.
 A DONKEY BOILER FITTED? Yes. If so, is a report now forwarded? Yes.
 Are approved plans forwarded herewith for Shafting (If not state date of approval) Yes. Main Boilers Yes. Auxiliary Boilers Yes. Donkey Boilers Yes.
 General Pumping Arrangements Yes. Oil fuel Burning Piping Arrangements Yes.
 SPARE GEAR. Yes.

Is the spare gear required by the Rules been supplied Yes.
 Is the principal additional spare gear supplied Yes.

The foregoing is a correct description. George Clark (1938) Ltd.
A. J. Schaeffer
 RESIDENT MANAGER



Dates of Survey while building
 During progress of work in shops -- 1946 Aug 19, 26 Dec 3, 23.
 During erection on board vessel -- 1947 Jan 22, 23, 24, 27, 30 Feb 4, 6, 11, 13, 24, 27, Mar 4, 7, 10, 11, 12, 24, 26, 27, 31 Apr 2, 3, 15, 17, 18, 28, 29, 30 May 6, 7, 8, 12, 15, 19, 20, 21, 22, 23, 28, 29 June 3, 5, 9, 11, 12, 13, 16, 17, 18, 23, 24, 30 July 2, 15, 17, 29, 31
 Total No. of visits 61

Dates of Examination of principal parts—Cylinders
 Slides
 Covers
 Connecting rods
 Intermediate shafts
 Propeller
 Engines holding down bolts
 Piston Rods
 Thrust shaft 17/4/47
 Screw shaft 17/4/47
 Engine and boiler seatings 11/6/47
 Stern tube 28/3/47
 Completion of fitting sea connections 15/4/47
 Completion of pumping arrangements 14/4/47 & 18/7/47
 Main boiler safety valves adjusted 15/7/47
 Crank shaft material See Manchester Rgs. Identification Mark
 Intermediate shafts, material Ingot Steel Identification Marks See below
 Screw shaft, material Ingot Steel Identification Mark See below
 Is an installation fitted for burning oil fuel 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 Vegetable oil in deck tank If so, have the requirements of the Rules been complied with Yes
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not desired
 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.)
 This machinery has been securely fitted on board the vessel & tried under working conditions with satisfactory results. The requirements of the Specification have been fulfilled. It is eligible in my opinion to have notation LMC 4.44, T.S (CL), 2 SB (Spt), 1 Aux. 220 hp., fitted for oil fuel (F.P. above 150°F) 4.44.

Note: Final lengths of Intermediate Shafting, Thrust Shaft & Screw Shaft have delivered to Messrs Black & Co as "free issue".
 Identification marks are as follows:
 Intermediate Shafting: 20698 B.1. S. 1984 N.K.
 21580 A.1. S. 3240 N.K.
 21455 B. S. 2913 N.K.
 21583 A.1. S. 3243 N.K.
 21239 C.1 S. 3434 N.K.
 Thrust Shaft: L.R. 21223 A.1. S. 2531 J.S.C. 5/4/43.
 Tail Shaft: L.R. 21621 A. S. 3484 J.S.C. 5/4/43.

SUNDERLAND

The amount of Entry Fee ... £ : :
 1/5 Special Specification ... £ 21 : 4 :
 Donkey Boiler Fee (25%) ... £ 5 : 6 :
 Travelling Expenses (if any) ... £ : :
 When applied for, AUG 11 1947
 When received, 19

W. Kraus
 Engineer Surveyor to Lloyd's Register of Shipping

Date: FRI. 26 SEP 1947
 Committee's Minute LMC 7.47
 FITTED FOR OIL FUEL 7.47 FLASH POINT ABOVE 160°F. F.D. CL. 2 SB 2206 (Spt) 1 Aux SB 2206 F.D.
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