

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

APR 1931

Date of writing Report 27.3.1931 When handed in at Local Office 27.3.1931 Port of MIDDLESBROUGH
 No. in Survey held at STOCKTON Date, First Survey 4 June Last Survey 26.3.1931
 Reg. Book. on the s/c. "DULWICH" (Number of Visits 44) Gross 4040
 Built at Stockton By whom built Smiths Dock Co. Ltd. Yard No. 923 When built 1931 Net 2443
 Engines made at do. By whom made Blair Co. (1926) Ltd Engine No. 1988 When made 1931
 Boilers made at do. By whom made do. Boiler No. 1988 When made 1931
 Registered Horse Power Owners Britain S.S. Co. Ltd. Port belonging to London
 Nom. Horse Power as per Rule 368.2 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted Yes
 Trade for which Vessel is intended General Cargo

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 65
 Dia. of Cylinders 28 1/2", 40 1/2", 67" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 12.56 Crank pin dia. 14" Crank webs Mid. length breadth 1'-10 1/4" Thickness parallel to axis 9"
 as fitted 13 1/2" Mid. length thickness 9" shrunk Thickness around eye-hole 6 1/2"
 Intermediate Shafts, diameter as per Rule 11.96 Thrust shaft, diameter at collars as per Rule 12.56
 as fitted 13" as fitted 14"
 Tube Shafts, diameter as per Rule 13.36 Is the (tube) shaft fitted with a continuous liner Yes
 as fitted 15" Is the (screw) shaft fitted with a continuous liner Yes
 Screw Shaft, diameter as per Rule 13.36 as fitted 15"
 Bronze Liners, thickness in way of bushes as per Rule 5/16" Thickness between bushes as per Rule 3/8" Is the after end of the liner made watertight in the
 as fitted 3/4" as fitted 5/8" 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 Yes
 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
 shaft no If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 5'-2"
 Propeller, dia. 16'-9" Pitch 16'-9" No. of Blades 4 Material Brass whether Moveable no Total Developed Surface 92 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3 1/4" Stroke 33" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/4" Stroke 33" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size 2-8 1/2" x 6" x 18" Weir (Steam) Pumps connected to the { No. and size 2-8" x 9" x 8" Lamont Duplex
 How driven 2-7" x 5" x 8" Lamont Duplex Main Bilge Line How driven Steam
 Ballast Pumps, No. and size 2-8" x 9" x 8" Lamont 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 3-2 1/2"; 1-2" in Tunnel; 1-2 1/2" in Tunnel Well
 In Pump Room ✓ In Holds, &c. Nº 1: 2-3"; Nº 2: 2-3"; Nº 4: 2-2 1/2"; Nº 5: 2-2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-7" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1-4 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes or hole with perforated covers
 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 above
 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 Forward Bilge Suctions How are they protected wood casings
 What pipes pass through the deep tanks none 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 E.R. entrance main deck level

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 6173 sq. ft.
 Is Forced Draft fitted no No. and Description of Boilers 3 S.B. Working Pressure 185 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ✓
 Is the donkey boiler intended to be used for domestic purposes only ✓
 P.E.A.N.S. Are approved plans forwarded herewith for Shafting 10.3.30 Main Boilers 8.4.30 Auxiliary Boilers ✓ Donkey Boilers ✓
 Superheaters ✓ General Pumping Arrangements 26.3.30 Oil fuel Burning Piping Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied 1 C.D. Propeller; 1 tail shaft; 1 pair bottom end brasses; 1 pair top end
 brasses; 2 safety valve springs; 2 main & 2 donkey check valve lids; 12 piston bolts; 3 piston nuts
 12 assorted gland & cover studs; 12 assorted base studs & nuts for pumps; 6 holding down bolts;
 3 condenser lugs; 25 condenser ferrules; 2 furnace doors; quantity firebars, baffles, back lids,
 primer blades, gauge glasses & cones.

The foregoing is a correct description,
 For BLAIR & CO. (1928) LIMITED.

A. J. Chambers
 SECRETARY.

Manufacturer.

RETAIN



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Lloyd's Register
 Foundation

W384-0141

Dates of Survey while building
 During progress of work in shops -- 1930 June 4, 16, 24, 30. July 4, 15, 22, 28, 30. Aug 25, 27. Sep 5, 12, 17, 25. Oct 3, 6, 10, 13, 15, 22.
 Nov 4, 13, 19. Dec 9, 17, 22, 1931 Jan 6, 13, 19, 26, 30. Feb 6, 12, 16, 27. Mar 3.
 During erection on board vessel --- 1931 Mar 9, 11, 13, 19, 20, 24, 26.
 Total No. of visits 44

Dates of Examination of principal parts—Cylinders 4. 11. 30 Slides 6. 1. 31 Covers 4. 11. 30.
 Pistons 5. 9. 30. Piston Rods 25. 8. 30. Connecting rods 25. 8. 30.
 Crank shaft 15. 10. 30 Thrust shaft 15. 10. 30 Intermediate shafts 12. 2. 31.
 Tube shaft 27. 2. 31 Screw shaft 27. 2. 31 Propeller 27. 2. 31.
 Stern tube 27. 2. 31 Engine and boiler seatings 30. 1. 31 Engines holding down bolts 11. 3. 31.
 Completion of fitting sea connections 30. 1. 31
 Completion of pumping arrangements 20. 3. 31 Boilers fixed 19. 3. 31 Engines tried under steam 26. 3. 31.
 Main boiler safety valves adjusted 19. 3. 31 Thickness of adjusting washers Port 5" 9" s. Centre both 5" 16" Stan. 5" 16" 32" s.
 Crank shaft material Steel Identification Mark LLOYDS No 1403 M 15. 10. 30 P.T.B. Thrust shaft material steel Identification Mark LLOYDS No 14095 S 15. 10. 30 P.T.B.
 Intermediate shafts, material steel Identification Marks LLOYDS No 1442 M 12. 2. 31 P.T.B. Tube shaft, material Identification Mark LLOYDS No 1451 M 27. 2. 31 P.T.B.
 Screw shaft, material Iron Identification Mark LLOYDS No 1451 M 27. 2. 31 P.T.B. Steam Pipes, material steel Test pressure 560 lbs Date of Test 30. 7. 30
 Is an installation fitted for burning oil fuel No 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 No 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 No - except dia. M.P. cyl. If so, state name of vessel "Deptford" Mal. Rpt 14312.

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

The materials and workmanship are good.

This machinery has been built under special survey in accordance with the Rules and approved Plans. It has been securely fitted aboard and tested under working conditions with satisfactory results and is, in my opinion, eligible for classification with record + L.M.C. 3.31.

The amount of Entry Fee ... £ 5-0-0 When applied for, 21. Mar. 1931
 Special ... £ 80-4-0
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When received, 11. Apr. 1931

Committee's Minute FRI. 17 APR 1931

Assigned

+ L.M.C. 3.31

C.L.

P. J. Ma...
Engineer Surveyor to Lloyd's Register of Shipping.

CERTIFICATE WRITTEN



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For J.S.O.F. see S.S. Dartford, Malb report No 14258

Certificates to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.