

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Sta No. 29460

18 JUN 1927 19 SEP 1927

Received at London Office

Date of writing Report 19 When handed in at Local Office 17 JUNE 1927 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 2nd Sep '26 Last Survey 8th Sept 1927
 Reg. Book. on the New Steel S.S. "Sir David" (Number of Visits 41)
 Built at South Shields By whom built John Readhead & Sons Yard No. 485 When built
 Engines made at Sunderland By whom made N. E. Marine Eng Co Ltd Engine No. 2631 when made 1927
 Boilers made at Waltham-on-Avon By whom made N. E. Marine Eng Co Ltd Boiler No. 2631 when made
 Registered Horse Power 158 Owners Gas, Light & Coke Co Port belonging to London
 Nom. Horse Power as per Rule 158 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 18" - 30" - 49" Length of Stroke 33" Revs. per minute 80 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 9.34" as fitted 9.5" Dia. of Crank pin 9.5" Crank webs Mid. length breadth 15.75" Thickness parallel to axis 5.9375"
 as fitted 9.5" Mid. length thickness 5.9375" shrunk Thickness around eye-hole 4.75"
 Diameter of Thrust shaft under collars as per rule 9.34" as fitted 9.5" Diameter of Tunnel shaft as per rule 8.9" as fitted none Diameter of Screw shaft as per rule 10.0" as fitted 10 3/4" Is the Screw shaft
 fitted with a continuous liner the whole length of the stern tube yes 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 joints burned yes If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated No Length of Stern Bush 13' 3" Diameter of Propeller 13' 3"
 Pitch of Propeller 13' 3" No. of Blades 4 State whether Movable No Total Surface 55 square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work yes
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3.5" Stroke 15" Can one be overhauled while the other is at work yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 1 @ 5 1/2 x 3 1/2 x 5
 No. and size of Pumps connected to the Main Bilge Line 2 on main engine + one Ballast pump
 No. and size of Ballast Pumps 1 @ 9 x 11 x 10 No. and size of Lubricating Oil Pumps, including Spare Pump none
 Are two independent means arranged for circulating water through the Oil Cooler yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 3 - 2 1/2" and in Holds, &c. No 1 Hold 2 @ 2 1/2"
No 2 Hold 2 @ 2 1/2"

No. and size of Main Water Circulating Pump Bilge Suctions 1 @ 5" No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges 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 connections with the sea direct on the skin of the ship yes Are they 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 Discharge Pipes 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 are carried through the bunkers Hold bilge suction How are they protected Wood Casings
 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 Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 2550 sq ft
 Is Forced Draft fitted no No. and Description of Boilers 1 SB One single ended Working Pressure 180 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 (If not state date of approval)
 General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:— One Spare Propeller, Two Bottom End Bolts & Nuts, Two Top End Bolts & Nuts, Two Main Bearing Bolts & Nuts, Two Feed & Two Bilge Pump Valves, Size Piston Bolts & Nuts, Fifty Condenser Flanges & Packing, One Set of Feed Donkey Valves, 1 set Coupling bolts & nuts. Quantity of assorted bolts nuts & iron.

The foregoing is a correct description, FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

C. T. Adams Manufacturer.

Manager.



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Lloyd's Register Foundation

005480-005488-0034

1926 Sep 2, 10, 22 Oct. 8, 11 Nov. 4 1927 Feb 4, 9 Mar. 14, 21, 29, Apr. 21, 22.
 During progress of work in shops -- May 3, June 11, 13 = 18 Visits
 Dates of Survey while building During erection on board vessel --- 1927. MAR. 4, 31. APRIL 7, 12, 20, 27. MAY 4, 11, 13. JUNE 10, 17, 27. JULY 8, 11, 13, 14, 29. AUG 4, 9, 10, 15. SEP. 7, 8.
 Total No. of visits 23

Dates of Examination of principal parts - Cylinders 4-11-26. Slides 4-11-26.
 Covers 1-3-27. Pistons 1-3-27. Rods 9-2-27.
 Connecting rods 9-2-27. Crank shaft 22-4-27. Thrust shaft 22-4-27.
 Tunnel shafts none. Screw shaft 10-6-27. Propeller 21-6-27.
 Stern tube 14-6-27. Engine and boiler seatings 8-1-27. Engines holding down bolts 9-8-27.
 Completion of pumping arrangements 10-8-27. Boilers fixed 9-8-27. Engines tried under steam 10-8-27.
 Completion of fitting sea connections 8-1-27. Stern tube 29-1-27. Screw shaft and propeller 29-1-27.
 Main boiler safety valves adjusted 10-8-27. Thickness of adjusting washers 17/32" 57/32"
 Material of Crank shaft Ingot Steel Identification Mark on Do. LLOYDS N^o 774N. 20-4-27. A.T.G.
 Material of Thrust shaft Ingot Steel Identification Mark on Do. LLOYDS N^o 774N. 22-4-27. A.T.G.
 Material of Tunnel shafts none Identification Marks on Do. ✓
 Material of Screw shafts old steel Identification Marks on Do. 4666 J.B. W.B.
 Material of Steam Pipes solid drawn steel ✓ Test pressure 50 lbs. ✓ Date of Test 11-1-27
 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 carrying and burning oil fuel been complied with ✓
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "Fireglow" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. The engine & Thrust Shaft have been constructed under Special Survey and are eligible in my opinion for classification and record of L.M.C. (with date) when the machinery has been satisfactorily installed in the vessel. The engine & Thrust Shaft have been to South Shields where they will be fitted in the vessel. This machinery has been built under Special Survey. Materials & workmanship good. Hydraulic Tests satisfactory. The whole of the machinery is efficiently installed & fixed in the vessel & was tried under steam & is in good & safe working condition & eligible in our opinion to be classed & have records. L.M.C. 9-27. Yail Shaft, C.L.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9. 27. CL.

[Signature] 19/9/27.
 A. T. Griffith, William Butler
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3: : : When applied for, 17 JUNE 1927 £18.10.0
 Special 2/5 fee £ 15: 16: : :
 Donkey Boiler Fee " ... £ 23: 14: 03 : : :
 Travelling Expenses (if any) £ : : :
 When received, £18.10.0
 Letter from RWR 18.10.0
 22 Feb 1927
 ✓ addressed for 17. Sep. 1927
 Paid 30/9/27 666 (£23.14.0)

Committee's Minute
 Assigned + L.M.C. 9: 27 Cl.
 CERTIFICATE WRITTEN.



SUNDERLAND.

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