

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

THU. APR. 17 1924

Date of writing Report 19 When handed in at Local Office 10/4/1924 Port of NEWCASTLE-ON-TYNE.
 No. in Survey held at Reg. Book. Newcastle Date, First Survey 21st Decr. 1923 Last Survey 10th April 1924
 Hoq 70 on the Steel & "SALMO" (Number of Visits 25)
 Built at Newcastle By whom built Swan Hunt & Wigham Richardson & Co. Ltd. Yard No. 1235 Tons } Gross
 Engines made at Newcastle By whom made Hallen & Shipway & Eng. Co. Ltd. Engine No. 884 when made 1924 } Net
 Boilers made at Newcastle By whom made Hallen & Shipway & Eng. Co. Ltd. Boiler No. 884 when made 1924
 Registered Horse Power Owners Ellerman's Steam Line Ltd. Port belonging to Hull
 Nom. Horse Power as per Rule 214 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Revised Triple Expansion
 Dia. of Cylinders 15 $\frac{1}{4}$ "-26"-45" Length of Stroke 33" Revs. per minute 78 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 9 $\frac{1}{2}$ " as fitted 9 $\frac{1}{2}$ " Dia. of Crank pin 9 $\frac{3}{4}$ " Crank webs Mid. length breadth 16 $\frac{7}{8}$ " Thickness parallel to axis 6 $\frac{3}{8}$ "
 Diameter of Thrust shaft under collar as per rule 9 $\frac{1}{2}$ " as fitted 9 $\frac{1}{2}$ " Diameter of Tunnel shaft as per rule 8 $\frac{1}{2}$ " as fitted 9" Diameter of Screw shaft as per rule 10 $\frac{1}{2}$ " as fitted 11 $\frac{1}{2}$ " Is the Screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made watertight in the propeller boss
 If the liner is in more than one length are the joints burned 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
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated Oil Gland
 Pitch of Propeller 11'-6" No. of Blades 4 State whether Moveable No Total Surface 49 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" 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 6" x 8 $\frac{1}{2}$ " x 13" Main Feed pump, Auxiliary Feed pump, Ballast 7 $\frac{1}{4}$ " x 8" x 8"
 No. and size of Pumps connected to the Main Bilge Line 2 Main Engine rooms, Ballast + Auxiliary Feed pumps
 No. and size of Ballast Pumps One 7 $\frac{1}{4}$ " x 8" x 8" No. and size of Lubricating Oil Pumps, including Spare Pump None
 Are two independent means arranged for circulating water through the Oil Cooler No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room Engine Rm 2-2 $\frac{1}{2}$ " Stald 2-2 $\frac{1}{2}$ " and in Holds, &c. No. 1 Hold 2-2 $\frac{1}{2}$ " No. 2 Hold 2-2 $\frac{1}{2}$ "
 No. 3 Hold 2-2 $\frac{1}{2}$ " Tunnel Well 2 $\frac{1}{2}$ "

No. and size of Main Water Circulating Pump Bilge Suctions One - 5" No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges One 3 $\frac{1}{2}$ " 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 Both
 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 Forward Suctions How are they protected Protected
 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 Yes Is it fitted with a watertight door Yes worked from Main Deck

MAIN BOILERS, &c.—(Letter for record 3) Total Heating Surface of Boilers 3328 sq ft
 Is Forced Draft fitted Yes No. and Description of Boilers Two Single End Cyl. Hull Working Pressure 225 lbs/sq in

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Yes Auxiliary Boilers Donkey Boilers
 (If not state date of approval)

General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—Four Engine Spares / Ecc. Rod, Strap & valve spindle, 1 Slide Valve, 1 Self piston Ring, 1 Piston Rod, with
 brasses, 1 Set Top & bottom End bolts & nuts, 1 Set Feed Pump Spares, 1 Set Suction Valves & Seats, 1 Set Delivery Valves & Seats,
 Main Engines Two Connecting Rod Top End Bolts & Nuts, Two Bottom End Bolts & Nuts, Two Main Bearing bolts & nuts, 1 Set Coupling bolts & nuts,
 Set feed pump valves, Set of bilge pump valves, 2 Condenser ferrules, 3 Tubes, 6 Joint Ring Studs, Set of Air pump valves
 Set Circulating pump valves, 1 Main Feed Check Valve, 1 Auxiliary feed Check Valve, 6 Stay nuts, 1 Safety valve
 spring, 2 Auxiliary feed pump valves, 2 Ballast pump valves, Escape valve spring of each inf fitted.
 Assorted bolts, nuts & Low.

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

The foregoing is a correct description

A. King

DIRECTOR.

Manufacturer.



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Lloyd's Register
Foundation

1923 1924
During progress of work in shops -- Dec. 21. Jan. 4. 9. 21. 22. 23. 25. 29. 31. Feb. 1. 4. 8. 11. 15. 20. 26. Mar. 5. 10. 12. 13. 14.
During erection on board vessel -- 28. Apr. 3. 4. 10.
Dates of Survey while building
Total No. of visits 25.

Dates of Examination of principal parts -- Cylinders 29. 1. 24 Slides 11. 2. 24
Covers 29. 1. 24 Pistons 20. 2. 24 Rods 15. 2. 24
Connecting rods 15. 2. 24 Crank shaft 25. 1. 24 Thrust shaft 25. 1. 24
Tunnel shafts 15. 2. 24 Screw shaft 15. 2. 24 Propeller 20. 2. 24
Stern tube 20. 2. 24 Engine and boiler seatings 10. 3. 24 Engines holding down bolts 12. 3. 24
Completion of pumping arrangements 28. 3. 24 Boilers fixed 12. 3. 24 Engines tried under steam 28. 3. 24
Completion of fitting sea connections 4. 3. 24 Stern tube 4. 3. 24 Screw shaft and propeller 4. 3. 24
Main boiler safety valves adjusted 28. 3. 24 Thickness of adjusting washers 1st Boiler 1 1/16" 5 3/8" 2nd Boiler 1 1/8" 5 3/8"
Material of Crank shaft S. M. Steel Identification Mark on Do. 6859 J.P. R.L.A.
Material of Thrust shaft S. M. Steel Identification Mark on Do. 2073 P.M.C.G. R.L.A.
Material of Tunnel shafts S. M. Steel Identification Marks on Do. 2097 P.M.C.G. 2120 P.M.C.G. R.L.A.
Material of Screw shafts S. M. Steel Identification Marks on Do. 2120 P.M.C.G. R.L.A.
Material of Steam Pipes L. M. Steel Test pressure 675 lbs. Date of Test 14. 3. 24
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 No. If so, state name of vessel ✓

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

The machinery of this vessel has been constructed under Special Survey. The materials and workmanship are sound & good. The main & auxiliary engines were tried out under steam at mooring trial with satisfactory results. The safety valves of the boilers were adjusted under steam. In my opinion this vessel is eligible for notation + L.M.C. 4. 24 O.G.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 4. 24. O.G.

23/4/24

The amount of Entry Fee ... £ 4 : -- :
Special ... £ 53 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 16 APR 1924
When received, 16/5/24

Committee's Minute

Assigned

WFD. 23 APR. 1924

+ L.M.C. 4. 24

Engineer Surveyor to Lloyd's Register of Shipping.



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