

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 **Newcastle** Date, First Survey 21st Decr. 1923 Last Survey 10th April 1924
 Reg. Book. No. 770 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
 } Net
 When built 1924

Engines made at **Newcastle** By whom made **Wallsend Slipway & Eng. Co. Ltd.** Engine No. 884 when made 1924

Boilers made at **Newcastle** By whom made **Wallsend Slipway & Eng. Co. Ltd.** Boiler No. 884 when made 1924

Registered Horse Power Owners **Ellenman's Wrecks 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 **Vertical Triple Expansion**

Dia. of Cylinders 15 1/4" - 26" - 45" Length of Stroke 30" Revs. per minute 78 No. of Cylinders 3 No. of Cranks 3

Dia. of Crank shaft journals as per rule 9.25" as fitted 9 1/2" Dia. of Crank pin 9 3/4" Crank webs Mid. length breadth 16 7/8" Thickness parallel to axis 6 3/8" Mid. length thickness 6 3/8" shrunk Thickness around eye-hole 5 1/8"

Diameter of Thrust shaft under collars as per rule 9.25" as fitted 9 1/2" Diameter of Tunnel shaft as per rule 8.81" as fitted 9" Diameter of Screw shaft as per rule 10.55" as fitted 11 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 **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 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 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 1/2 x 13" main feed pump, 6 1/4 x 4 3/4 x 6" Auxiliary feed pump, Ballast 7 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 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 **Yes** No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **Engine Room 2-2 1/2" Stald 2-2 1/2"** and in Holds, &c. **No. 1 Hold 2-2 1/2" No. 2 Hold 2-2 1/2"**

No. 3 Hold 2-2 1/2" Tunnel Well 2 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 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 **Wood Cases**

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**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**

IS A DONKEY BOILER FITTED? **No** 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**

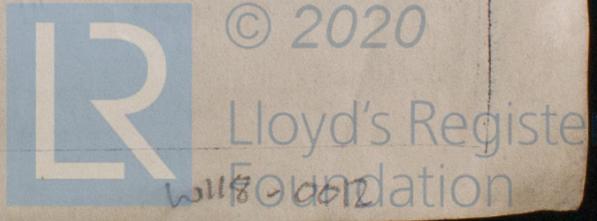
General Pumping Arrangements Oil fuel Burning Piping Arrangements **Yes**

SPARE GEAR. State the articles supplied: **Two Engine Spares / Ecc. Rod, Strap & valve spindle, 1 Slide Valve, 1 Set piston rings, 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 & seat, Main Engines Two Connecting Rod Top End Bolts + Nuts, Two Bottom End Bolts + Nuts, Two Main Bearing bolts + nuts, 1 Set Coupling bolts + nuts, 1 Set feed pump valves, 1 Set of bilge pump valves, 2 Condenser ferrules, 3 Tubes, 6 Joint Ring studs, 1 Set of air pump valves, 1 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, 1 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.



1923 1924
 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 progress of work in shops -- 28. Apr. 3. 4. 10.
 Dates of Survey while building During erection on board vessel --
 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 28th Mar. 1924 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 Port Boiler 1 1/16" 5 3/8" Star. Boiler Port. 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/sq. in. 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.

[Signature] 72
 23/4/24

[Signature]
 R. Lee Amers
 Engineer Surveyor to Lloyd's Register of Shipping.

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 APR 1924

Committee's Minute WFD. 23 APR. 1924
 Assigned + L.M.C. 4. 24 O.G.

CERTIFICATE WRITTEN

NEWCASTLE-ON-TYNE

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