

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 81720.

Date of writing Report **10** When handed in at Local Office **6 AUG 1927** Port of **NEWCASTLE-ON-TYNE.**  
 Received at London Office **26 AUG 1927**  
 No. in Survey held at Reg. Book. **Wallsend, on Tyne** Date, First Survey **29 July 1926** Last Survey **3 Aug. 1927**  
 on the **New Steel S.S. "Seakwood"** (Number of Visits **61.**)  
 Built at **Newcastle** By whom built **Armstrong Whitworth & Co. L<sup>d</sup>** Yard No. **1017** Tons **Gross 6014**  
 Engines made at **Wallsend** By whom made **Wallsend Slipways & Co** Engine No. **866** When built **1927**  
 Boilers made at **Wallsend** By whom made **Wallsend Slipways & Co** Boiler No. **866** when made **1927**  
 Registered Horse Power **2800** Owners **The Seakwood Steamship Coy (1926) L<sup>d</sup>** Port belonging to **London**  
 Nom. Horse Power as per Rule **515** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**  
 Trade for which Vessel is intended **Foreign.**

**ENGINES, &c.**—Description of Engines **Triple Expansion** Revs. per minute **70**  
 Dia. of Cylinders **27" x 45" x 45"** Length of Stroke **148"** No. of Cylinders **3** No. of Cranks **3**  
 Crank shaft, dia. of journals as per Rule **13.91"** as fitted **14 1/4"** Crank pin dia. **14 1/4"** Crank webs Mid. length breadth **1.9"** Mid. length thickness **9 1/2"** Thickness parallel to axis **9 1/4"** Thickness around eye-hole **6 3/8"**  
 Intermediate Shafts, diameter as per Rule **13.95"** as fitted **14.95"** Thrust shaft, diameter at collars as per Rule **13.91"** as fitted **14 1/4"**  
 Tube Shafts, diameter as per Rule **14.7 1/2"** as fitted **15.0"** Is the **tube** shaft fitted with a continuous liner **yes**  
 Screw Shaft, diameter as per Rule **15.0"** as fitted **15.0"** Is the **screw** shaft fitted with a continuous liner **yes**  
 Bronze Liners, thickness in way of bushes as per Rule **1.5 1/2"** as fitted **2 3/32"** Thickness between bushes as per Rule **1.5 1/2"** as fitted **2 3/32"** 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 **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**  
 Propeller, dia. **18' 9"** Pitch **14' 6"** No. of Blades **4** Material **CAST IRON** whether Moveable **no** Total Developed Surface **105** sq. feet  
 Feed Pumps worked from the Main Engines, No. **2** Diameter **4 1/2"** Stroke **2-2"** Can one be overhauled while the other is at work **yes**  
 Bilge Pumps worked from the Main Engines, No. **2** Diameter **4 1/2"** Stroke **2-2"** Can one be overhauled while the other is at work **yes**  
 Feed Pumps { No. and size **2 @ 9 1/2" x 4" x 21"** How driven **Steam** DONKEY Pumps connected to the Main Bilge Line { No. and size **1 @ 8" x 10" x 10"** How driven **Steam**  
 Ballast Pumps, No. and size **1 @ 8" x 10" x 10" duplex** Lubricating Oil Pumps, including Spare Pump, No. and size **1**  
 Are two independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **3 @ 3 1/2" dia + 2 @ 2 1/2" dia in gutterways**  
 In Holds, &c. **Carrying petroleum in bulk. (Ford Hold 2 @ 2 1/2" dia and 1 @ 2 1/2" dia) 2 @ 2 1/2"**  
 In Forepeak **1 @ 4"** (1 Ford pump room.)  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 @ 8"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 @ 4 3/4"**  
 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 rail 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**  
 Are that Pipes are carried through the bunkers **none** How are they protected **yes**  
 Are that pipes pass through the deep tanks **none** 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 **rely aft** Is it fitted with a watertight door **yes** worked from **yes**

**MAIN BOILERS, &c.**—(Letter for record **S**) Total Heating Surface of Boilers **4353**  
 Forced Draft fitted **yes** No. and Description of Boilers **Three Single C.** Working Pressure **180 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 **no** Main Boilers **yes** Auxiliary Boilers **yes** Donkey Boilers **yes**  
 Superheaters **yes** General Pumping Arrangements **yes** Oil fuel Burning Piping Arrangements **yes**

**SPARE GEAR.** State the articles supplied:— **Two each bolts & nuts for top and bottom ends and main bearings. One set coupling bolts. Set feed & bilge pump valves. Quantity of assorted bolts nuts & iron. Half set ballast pump valves. One cast iron propeller. One check valve lids. 2 condensed tubes & 100 ferrules & packing. 2 safety valve springs. Propeller shaft. 1 valve spindle. 1 Ecc strap. One pair x head brasses. One steam valve chest shuttle valve & set of piston rings for feed pump. 1 set escape valve springs. One pair crank pin brasses. etc.**

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

Manufacturer.

*A. Lawing*

DIRECTOR.

Lloyd's Register Foundation

004222-004229-0127

During progress of work in shops -- } 1926 JULY. 29. AUG. 3. 5. 7. 9. SEP. 15. 22. 24. 27. 30. OCT. 4. 8. 14. 18. 19. 28. NOV. 2. 4. 5. 17. 23. 25. 30. DEC. 1. 3. 6.

Dates of Survey while building } 1927 JAN. 5. 26. 27. 31. FEB. 9. 17. 21. 25. MAR. 2. 7. 8. 16. 21. 31. APR. 1. 4. 6. 13. 21. 30. MAY. 3. 10. JUNE. 8. 9. 17. 28. 30.

During erection on board vessel --- } JULY. 6. 7. 8. 21. 22. 26. AUG. 3.

Total No. of visits 61.

Dates of Examination of principal parts—Cylinders 14-11-26. Slides 19-10-26. Covers 30-11-26.

Pistons 18-10-26. Piston Rods 6-12-26. Connecting rods 14-10-26.

Crank shaft 5-11-26. Thrust shaft 5-11-26. Intermediate shafts 6-12-26.

Tube shaft ✓ Screw shaft 6-12-26. Propeller 21-2-27.

Stern tube 19-10-26. Engine and boiler seatings 14-6-27. Engines holding down bolts 8-4-27.

Completion of pumping arrangements 26-4-27. Boilers fixed 6-4-27. Engines tried under steam 26-4-27.

Main boiler safety valves adjusted 26-4-27. Thickness of adjusting washers 5 Blk F 1/16 A 1/16, 9 Blk P 1/16 S 1/16, F Blk P 1/16 S 1/16.

Crank shaft material O.H. Steel Identification Mark 4541 N 60 Thrust shaft material O.H. Steel Identification Mark 4541 W 30

Intermediate shafts, material O.H. Steel Identification Marks 4541 W 30. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material O.H. Steel Identification Mark 4541 W 30. Steam Pipes, material L.W. Steel Test pressure 540 lbs Date of Test 30-6-27

Is an installation fitted for burning oil fuel yes. Is the flash point of the oil to be used over 150°F. yes.

Have the requirements of the Rules for carrying and burning oil fuel been complied with yes.

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 built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. The whole of the Machinery is efficiently installed and fixed in the vessel and was tried under steam and is in good & safe working condition and eligible in my opinion to be classed and have records. ✠ L.M.C. 8-27 T.S. C.L. Electric Light. in the Register Book. also. "Fitted for oil fuel. 8-27. F.P. above 150°F"

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8-27 C.L. F.D. Fitted for oil fuel 8-27. F.P. above 150°F. 26/8/27. J.P.R.

Newcastle-on-Tyne

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

The amount of Entry Fee ... £ 6 : 0 : 0 } When applied for, 24 AUG 1927

Special ... £ 100 : 15 : 0 } When received, 26-8-27

Donkey Boiler Fee ... £ ✓ : ✓

Travelling Expenses (if any) £ ✓ : ✓

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

Committee's Minute TUES. 30 AUG 1927

Assigned Thine 8-27 C.L. F.D. Fitted for oil fuel 8-27 above 150°F