

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

10 NOV. 1927

Received at London Office

12 NOV 1927

Date of writing Report 19 When handed in at Local Office 19 Port of **LIVERPOOL**

No. in Survey held at Reg. Book. **Northwich** Date, First Survey **15th Jan'y 25** Last Survey **Novr 2nd 1927**
 on the **s.s. 'Swazi'** (Number of Visits **12**)

Built at **Northwich** By whom built **Messrs W. J. Yarwood & Sons. Ld.** Yard No. **365** Tons { Gross **238**
 Net **105**
 Engines made at **D^o** By whom made **D^o** Engine No. **176** When built **1927**
 Boilers made at **Stokton** By whom made **Messrs Riley Bros. Ld.** Boiler No. **5602** when made **1925**
 Registered Horse Power **43** Owners **R. P. Houston & Co. Ld.** Port belonging to **London**
 Nom. Horse Power as per Rule **43** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 Trade for which Vessel is intended **3-13**

ENGINES, &c.—Description of Engines **Vertical compound** ✓ Revs. per minute **140** ✓

Dia. of Cylinders **13 1/2 12 8** ✓ Length of Stroke **22** ✓ No. of Cylinders **2** ✓ No. of Cranks **2** ✓

Crank shaft, dia. of journals as per Rule **5.75** ✓ Crank pin dia. **6 5/16** ✓ Crank webs Mid. length breadth **9** ✓ Thickness parallel to axis **4 1/2** ✓
 as fitted **6 9/16** ✓ Mid. length thickness **4 1/2** ✓ shrunk Thickness around eye-hole **2 1/2** ✓

Intermediate Shafts, diameter as per Rule **5.41** ✓ 5.85 ✓ Thrust shaft, diameter at collars as per Rule **5 3/4 6.13** ✓
 as fitted **5.41** ✓ as fitted **6 3/4** ✓ Is the screw shaft fitted with a continuous liner **No** ✓

Tube Shafts, diameter as per Rule **6 1/4** ✓ 6.71 ✓ Screw Shaft, diameter as per Rule **6 3/4** ✓ Is the screw shaft fitted with a continuous liner **No** ✓
 as fitted **6 3/4** ✓ as fitted **6 3/4** ✓

Bronze Liners, thickness in way of bushes as per Rule **0.02** ✓ Thickness between bushes as per Rule **0.02** ✓ Is the after end of the liner made watertight in the propeller boss **Yes** ✓
 as fitted **0.02** ✓ as fitted **0.02** ✓ 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 **Yes** ✓

Propeller, dia. **7-2"** ✓ Pitch **9-9"** ✓ No. of Blades **4** ✓ Material **C.I.** ✓ whether Moveable **Yes** ✓ Total Developed Surface **23** ✓ sq. feet

Feed Pumps worked from the Main Engines, No. **1** ✓ Diameter **2"** ✓ Stroke **11"** ✓ Can one be overhauled while the other is at work **Yes** ✓
 Bilge Pumps worked from the Main Engines, No. **1** ✓ Diameter **2"** ✓ Stroke **11"** ✓ Can one be overhauled while the other is at work **Yes** ✓

Feed Pumps { No. and size **one, 4 3/4" x 3" x 5" duplex** ✓ Pumps connected to the { No. and size **one, 5 1/2" x 3 1/2" x 5"** ✓
 { How driven **steam** ✓ Main Bilge Line { How driven **steam** ✓

Ballast Pumps, No. and size **one, 5 1/4" x 3 1/2" x 5"** ✓ 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 **1-2"** ✓ **There is also one 2" direct suction to main bilge pump** ✓
 In Hold **2-2"** ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size **1-2"** ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1-2 1/4"** ✓
 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 tail pipes to the bilges **Yes** ✓
 Are all Sea Connections fitted direct on the skin of the ship **Yes** ✓ Are they fitted with Valves & Cocks **Yes** ✓
 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 **Yes** ✓
 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 **Yes** ✓ How are they protected **Yes** ✓
 What pipes pass through the deep tanks **Yes** ✓ 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 **Yes** ✓ Is it fitted with a watertight door **Yes** ✓ worked from **Yes** ✓

MAIN BOILERS, &c. — (Letter for record **S**) Total Heating Surface of Boilers **7550'** ✓
 Is Forced Draft fitted **No** ✓ No. and Description of Boilers **one multitubular** ✓ Working Pressure **140 lbs** ✓
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes** ✓
 IS A DONKEY BOILER FITTED? **No** ✓ If so, is a report now forwarded? **No** ✓
 PLANS. Are approved plans forwarded herewith for Shafting **Yes** ✓ 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:—
 2 crosshd. bolts & nuts ✓
 2 bottom end bolts & nuts ✓
 2 main bearing bolts ✓
 1 set of coupling bolts ✓
 1 - feed & bilge pump valves ✓
 1 - piston springs ✓
 assorted bolts & nuts, & iron of various sizes. ✓

The foregoing is a correct description,
W. J. YARWOOD & SONS, LTD.
Albert Yarwood Manufacturer.

GEN

Dates of Survey while building

During progress of work in shops -- } 1925 Jan 15, Mar 17, May 19, July 8, Aug 17, Oct 14, 1926, Apr 29, 1927, Aug 12, Sept 22, Oct 7, 28, Nov 2.

During erection on board vessel - - - }

Total No. of visits 12.

Dates of Examination of principal parts—Cylinders 17.8.25 Slides 17.8.25 Covers 17.8.25

Pistons 8.7.25 Piston Rods 8.7.25 Connecting rods 8.7.25

Crank shaft 19.5.25 Thrust shaft 8.7.25 Intermediate shafts ✓

Tube shaft ✓ Screw shaft 8.7.25 Propeller 29.4.26

Stern tube 8.7.25 Engine and boiler seatings 1.9.27 Engines holding down bolts 22.9.27

Completion of pumping arrangements 31.10.27 Boilers fixed 12.8.27 Engines tried under steam 28.10.27

Main boiler safety valves adjusted 28.10.27 Thickness of adjusting washers 3/8"

Crank shaft material M.S. Identification Mark 1124 Thrust shaft material M.S. Identification Mark 1046

Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material M.S. Identification Mark 1046 Steam Pipes, material S.D. copper Test pressure 350, 180 Date of Test 20.9.27

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 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; the materials & workmanship are good. After erection in the shop, the machinery & boiler of this vessel have been fitted on board in an efficient manner, and tried under steam with satisfactory results, and are now eligible for record of + L.M.C. 11.27.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.27.

140 lb.

J.W.D.
17/11/27

The amount of Entry Fee ... £ 2 : : : When applied for.

Engines Special ... £ 5 : 15 : : 10/11/27

Donkey Boiler Fee ... £ : : : When received.

Travelling Expenses (if any) £ 2 - 6 - 10 16.11.27

S. Townend.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 11 NOV. 1927

Assigned + LMC 11.27.
Elec. Light

The Surveys are requested not to write on or below the space for Committee's Minute.



© 2020 Lloyd's Register Foundation