

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

10 NOV. 1927

Received at London Office

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 15<sup>th</sup> Jan'y 1925 Last Survey Nov 2<sup>nd</sup> 1927  
(Number of Visits 12)

on the

s.s. 'Swazi'

Built at Northwich

By whom built

Messrs W. J. Yarwood &amp; Sons. Ltd.

Yard No. 365

Tons { Gross 238

Net 105

When built 1927

Engines made at

D<sup>o</sup>

By whom made

D<sup>o</sup>

Engine No. 176

when made 1927

Boilers made at

Stokton

By whom made

Messrs Riley Bros. Ltd.

Boiler No. 5602

when made 1925

Registered Horse Power

Owners R. P. Houston &amp; Co. Ltd.

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, &amp;c.—Description of Engines

Vertical compound

Dia. of Cylinders

13 $\frac{1}{2}$  128

Length of Stroke

22

No. of Cylinders

2

Revs. per minute

140

Crank shaft, dia. of journals

as per Rule 5.25

as fitted 6.9/16

Crank pin dia.

6.5/16

Crank webs

Mid. length breadth

9

No. of Cranks

2

Intermediate Shafts, diameter

as per Rule 5.41

as fitted 5.85

Thrust shaft, diameter at collars

as per Rule 5.4

as fitted 6.13

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 6.4

as fitted 6.3/4

Is the

screw

shaft fitted with a continuous liner

No

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the

propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 Oil Gland or other appliance fitted at the after

end of the tube shaft

Length of Bearing in Stern Bush

next to and supporting propeller

2-3"

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

Bilge Pumps worked from the Main Engines, No.

1

Diameter

2"

Stroke

11"

Can one be overhauled while the other is at work

Feed Pumps

No. and size

one, 4 $\frac{3}{4}$ " x 3" x 5" duplex

Pumps connected to the

No. and size

one, 5 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " x 5"

How driven

steam

Main Bilge Line

How driven

steam

Ballast Pumps, No. and size

one, 5 $\frac{1}{4}$ " x 3 $\frac{1}{2}$ " x 5"

Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

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 $\frac{1}{4}$ "

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 &amp; 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

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

What pipes pass through the deep tanks

How are they protected

Have they been tested as per Rule

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

MAIN BOILERS, &amp;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?

PLANS. Are approved plans forwarded herewith for Shafting

Yes

Main Boilers

Yes

Auxiliary Boilers

Yes

Donkey Boilers

Superheaters

(If not state date of approval)

General Pumping Arrangements

Yes

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

2 crosshd. bolts &amp; nuts

2 bottom end bolts &amp; nuts

2 main bearing bolts

1 set of coupling bolts

1 - feed &amp; bilge pump valves

1 - piston springs

assorted bolts &amp; nuts, &amp; iron of various sizes

The foregoing is a correct description,

W. J. YARWOOD &amp; SONS, LTD.

W. J. Yarwood

Manufacturer.



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Lloyd's Register  
Foundation

003605-003610-0026



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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, 280 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.

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 ... £ 2 : : : When applied for, 10/11/27.  
Engines Special ... £ 5 : 15 : :  
Donkey Boiler Fee ... £ : : : When received, 16.11.27  
Travelling Expenses (if any) £ 2 - 6 - 10

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

Committee's Minute LIVERPOOL 11 NOV. 1927

Assigned + LMC 11.27.  
Elec. Light.

