

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY,

26 OCT 1927

Received at London Office

Date of writing Report

19

When handed in at Local Office

21. 10.

1927

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

2. 12. 26

Last Survey

20-10-1927

Reg. Book

on the

new steel S/S LUNULA

(Number of Visits)

9.8

Gross

Tons

Net

When built

1927

when made

1927

when made

1927

Built at

Port Glasgow

By whom built

Wm Hamilton &amp; Co Ltd

Yard No.

398

Engines made at

Glasgow

By whom made

David Rowan &amp; Co Ltd

Engine No.

852

Boilers made at

Glasgow

By whom made

David Rowan &amp; Co Ltd

Boiler No.

852

Registered Horse Power

Owners

Aral S/S Co Ltd

Port belonging to

Nom. Horse Power as per Rule

544

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

oil tank vessel

## ENGINES, &amp;c.

Description of Engines

Triple expansion

Revs. per minute

70

Dia. of Cylinders

25 1/2" - 43 1/2" - 75"

Length of Stroke

51"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 14.63

as fitted 14 7/8"

Crank pin dia.

15"

Crank webs

Mid. length breadth 22 1/2"

Mid. length thickness 9 7/8"

shrink

Thickness parallel to axis 9 3/8"

Thickness around eye-hole 6 1/8"

Intermediate Shafts, diameter

as per Rule 13.94

as fitted 13 9/16"

Thrust shaft, diameter at collars

as per Rule 14.637

as fitted 15 1/8"

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 15.48

as fitted 15 3/4"

Is the

tube

shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule 7.72

as fitted 13"

Thickness between bushes

as per Rule 5.87

as fitted 3/4"

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

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 tapered or protected between the liners

Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft

yes

Length of Bearing in Stern Bush next to and supporting propeller

5-3

Propeller, dia.

18 1/2"

Pitch

18 1/2"

No. of Blades

4

Material

Bunge

whether Moveable

no

Total Developed Surface

105

sq. feet

Feed Pumps worked from the Main Engines, No.

2

Diameter

4"

Stroke

27"

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

27"

Can one be overhauled while the other is at work

yes

Feed Pumps

No. and size

2 @ 10 1/2" x 8" x 22"

Pumps connected to the

Main Bilge Line

How driven

Steam

Ballast pump

Steam

Ballast Pumps, No. and size

6 @ 8" x 8"

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

No. and size

No. and size

No. and size

No. and size

No. and size

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" and 2 @ 2" in oil wells

(wells to gutter at fore end of machinery space)

In Holds, &amp;c.

7' 0" 21' 0" 9' 7" 16' 0" 21' 0" 21' 0"

21' 0" 21' 0" 21' 0"

21' 0" 21' 0" 21' 0"

Main Water Circulating Pump Direct Bilge Suctions, No. and size

one @ 9"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

one @ 5"

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 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

What Pipes pass through the bunkers

none

How are they protected

-

What pipes pass through the deep tanks

none

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

none

Is it fitted with a watertight door

-

worked from

MAIN BOILERS, &amp;c.—(Letter for record (3))

Total Heating Surface of Boilers

7269

Is Forced Draft fitted

yes

No. and Description of Boilers

three single ended

Working Pressure

220

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

PLANS.

Are approved plans forwarded herewith for Shafting

no

Main Boilers

yes

Auxiliary Boilers

-

Donkey Boilers

yes

Superheaters

yes

General Pumping Arrangements

yes

Oil fuel Burning Piping Arrangements

yes

SPARE GEAR. State the articles supplied:—

In accordance with the Rules and in addition:—

one screw shaft, one propeller, one bottom end bearing, one valve spindle and

one eccentric strap.

The foregoing is a correct description,

For David Rowan &amp; Co. Ltd

Arch. N. Grierson

Manufacturer.



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Lloyd's Register Foundation

W191-0105



1926 Dec 2-6-13-19-20-21-22-23-27 (1927) Jan 12-13-18-21-26-31 Feb 1-8-9-18-24-25-28 Mar 4-7-8-9-10  
 During progress of work in shops - - 14-16-17-18-21-23-25-29-30 Apr 1-4-5-6-7-11-13-14-15-20-21-22-26-27-28-29 May 4-5-9-11-13-16-17-23-25-26-30  
 Dates of Survey while building During erection on board vessel - - - Jan 2-3-13-16-17-20-22-27-29 July 6-7-12-14 Aug 2-10-16-19 Sept 4-7-13-15-16-19-20-21-22-27-28-29-30 Oct 1-6  
 Total No. of visits 98

Dates of Examination of principal parts—Cylinders 8-5-27 Slides 5-4-27 Covers 26-1-27  
 Pistons 29-4-27 Piston Rods 6-7-27 Connecting rods 14-4-27  
 Crank shaft 26-5-27 Thrust shaft 3-6-27 Intermediate shafts none  
 Tube shaft none Screw shaft 10-8-27 Propeller 10-8-27  
 Stern tube 7-7-27 Engine and boiler seatings 4-9-27 Engines holding down bolts 16-9-27  
 Completion of fitting sea connections 8/10/27 Boilers fixed 28-9-27 Engines tried under steam 7-10-27  
 Completion of pumping arrangements 16-9-27 Thickness of adjusting washers 11-5-27  
 Main boiler safety valves adjusted 17-10-27  
 Crank shaft material J. steel Identification Mark LLOYDS N2852 26-5-27 L.C.D. Thrust shaft material J. steel Identification Mark LLOYDS N2230 3-6-27 L.C.D.  
 Intermediate shafts, material none Identification Marks Tube shaft, material none Identification Mark LLOYDS N2206 17-10-27 L.C.D.  
 Screw shaft, material J. steel Identification Mark LLOYDS N2230 10-8-27 L.C.D. Test pressure 550 Date of Test 11-5-27  
 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 materials and workmanship are good.  
 The machinery has been constructed under Special Survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good.  
 It is eligible in my opinion for classification and the Records of L.M.C. 10.  
 Fitted for oil fuel 10.27 F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.27. FD. CL.  
 Fitted for oil fuel 10.27. F.P. above 150°F.

A. B. Glasgow  
 21/10/27

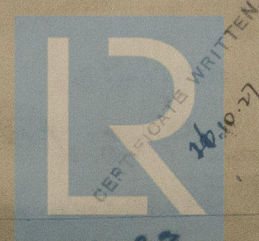
The amount of Entry Fee ... £ 6 :  
 Special ... £ 102 : 4  
 Donkey Boiler Fee ... £ :  
 Travelling Expenses (if any) £ :  
 When applied for, 24/10/27  
 When received, 25/10/27

S. C. Davis.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 OCT 1927

Assigned + LMC 10.27

Fitted for oil fuel 10.27 F.P. above 150°F.



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