

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

18 AUG 1925

Date of writing Report

19

When handed in at Local Office

23/5/1925 Port of

NEWCASTLE ON TYNE

Aug. 14<sup>th</sup>

No. in Survey held at

Newcastle on Tyne

Date, First Survey Feb 19<sup>th</sup>

Last Survey

Aug 22<sup>nd</sup> 1925

Reg. Book.

on the

steel S.S. Redriff

(Number of Visits 28)

Gross

1560

Net

900

When built

1925

Built at Newcastle

By whom built

Lorne Shipbuilding Co. Ltd.

Yard No. 229

Engines made at Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Engine No. 2607

when made 1925

Boilers made at Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Boiler No. 2607

when made 1925

Registered Horse Power

Owners South Metropolitan Gas Co

Port belonging to London

Nom. Horse Power as per Rule 182

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes

Trade for which Vessel is intended

Coal trade - Ocean going

ENGINES, &amp;c.—Description of Engines Inverted Triple Expansion

Revs. per minute 92 1/2

Dia. of Cylinders 18" 30" 49"

Length of Stroke 33"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals

as per Rule 9 3/4"

Crank pin dia. 9 3/4"

Crank webs

Mid. length breadth 16 1/4"

shrunk

Thickness parallel to axis 6"

Thickness around eye-hole 4 1/8"

Intermediate Shafts, diameter

as per Rule 8.899"

as fitted 9 3/8"

Thrust shaft, diameter at collars

as per Rule 9 3/4"

as fitted 9 3/4"

Tube Shafts, diameter

as per Rule

Screw Shaft, diameter

as per Rule 9.859"

as fitted 10 1/4"

Is the

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule 5/8"

as fitted 5/8"

Thickness between bushes

as per Rule 5/8"

as fitted 5/8"

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

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

No

Length of Bearing in Stern Bush next to and supporting propeller

45"

Propeller, dia. 12'-6"

Pitch 13'-0"

No. of Blades 4

Material

whether Moveable No.

Total Developed Surface 54 sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 3"

Stroke 16 1/2"

Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. 2

Diameter 3"

Stroke 16 1/2"

Can one be overhauled while the other is at work

Feed Pumps No. and size Three 2 1/2" 6 x 8 1/2 x 13"

How driven Steam

Pumps connected to the Main Bilge Line

No. and size Main Rams -

How driven Steam

Ballast Pump 8 x 10 x 10

Ballast Pumps, No. and size One - 8" x 10" x 10"

Lubricating Oil Pumps, including Spare Pump, No. and size none

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

Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps; - In Engine and Boiler Room

4 - 2 1/2"

In Holds, &amp;c. Fore hold 2 - 2 1/2"

after hold 2 - 2 1/2"

after well 1 - 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 6"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One 2 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 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 are carried through the bunkers

None to the fore hold

How are they protected

wooden casings

What 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

Yes

Is it fitted with a watertight door

Yes

worked from upper platform

MAIN BOILERS, &amp;c.—(Letter for record 3.) Total Heating Surface of Boilers 3260 sq. ft.

Is Forced Draft fitted

No

No. and Description of Boilers 2 S.S. Steel Boilers 25B

Working Pressure 180 lbs. sq. in.

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

Main Boilers

Yes

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters

None

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:— 1 spare propeller. 1 propeller shaft. 2 bottom end, 2 top end

+ 2 main bearing bolts &amp; nuts. A set of coupling bolts &amp; nuts. 2 bilge pump valves. 1/2 cut

of iron plate. 1/2 cut iron bars, 20 nuts &amp; bolts assorted.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

J. J. Harrison

Secretary.

Manufacturer.



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Lloyd's Register Foundation

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During progress of work in shops - - 1925 Feb 14. 23. 27. March 2. 3. 6. 9. 11. 13. 25. 26. 27. April 1. 3. 6. 7. 14. 13. May 1. 8  
 Dates of Survey while building During erection on board vessel - - - 1925 May 12. 14. 15. 18. 22 July 20<sup>th</sup> Aug 4<sup>th</sup> 1925.  
 Total No. of visits 28

Dates of Examination of principal parts—Cylinders 26.3.25 Slides 3.4.25 Covers 6.4.25  
 Pistons 3.4.25 Piston Rods 27.2.25 Connecting rods 11.3.25  
 Crank shaft 9.3.25 + 13.3.25 Thrust shaft 23.2.25 Intermediate shafts 3.3.25  
 Tube shaft - Screw shaft 6.4.25 Propeller 3.4.25  
 Stern tube 6.4.25 Engine and boiler seatings 12.5.25 Engines holding down bolts 15.5.25  
 Completion of pumping arrangements 22.5.25 Boilers fixed 15.5.25 Engines tried under steam 22.5.25  
 Main boiler safety valves adjusted 22.5.25 Thickness of adjusting washers Port. P =  $\frac{1}{8}$  S =  $\frac{13}{32}$  standard P =  $\frac{3}{8}$  S =  $\frac{11}{32}$   
 Crank shaft material A.M.S. Steel Identification Mark 13.3.25 RLA 4841D. Thrust shaft material A.M.S. Steel Identification Mark 23.2.25 RLA 4841D.  
 Intermediate shafts, material A.M.S. Steel Identification Marks 3.3.25 RLA 4841D. Tube shaft, material - Identification Mark -  
 Screw shaft, material A.M.S. Steel Identification Mark 6.4.25 RLA Steam Pipes, material steel Test pressure 540 Date of Test 8.4.15.5  
 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. This vessel's machinery has been examined during construction & the materials and workmanship are good, and in accordance with the requirements of the rules, and the approved plans. On completion it was tried under steam with satisfactory results, when the safety valves were adjusted to the working pressure. It is therefore eligible in our opinion to be classed with the notation of +LMC 8.25 in the R. Book.

It is submitted that this vessel is eligible for THE RECORD, +LMC 8.25 C.L.

Pms. 1925

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 45 : 10 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 12 JUN 1925  
 When received, 17 JUL 1925

Francis Peterson & Ree Amear  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned + LMC 8.25  
 C.L.  
 FRI. 21 AUG 1925  
 CERTIFICATE NO. 11.48