

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

No. 11569

JULY 15 1923

Received at London Office

Date of writing Report

19

When handed in at Local Office

12.5.

1923

Port of

Middlesbrough

No. in Survey held at

Glasgow & Middlesbrough

Date, First Survey

1st March

Last Survey

15 May 1923

Reg. Book.

on the

Steel screw steamer RAWLINSON

(Number of Visits)

12

Tons

When built 1923

Built at

Middlesbrough

By whom built

Messrs The Furness S.B. & Co Ltd

Yard No.

40

Engines made at

Glasgow

By whom made

Messrs Ross & Duncan

Engine No.

1090

when made 1923

Boilers made at

Do

By whom made

Do

Boiler No.

1621-2

when made 1923

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Rule

156

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple Expansion

See Glasgow Report No 42617

Dia. of Cylinders

17-27½-45

Length of Stroke

33

Revs. per minute

No. of Cylinders

3

No. of Cranks

3

Dia. of Crank shaft journals

as per rule 9.05

as fitted 9.5

Dia. of Crank pin

9½

Crank webs

Mid. length breadth 17½

shrunken

Thickness parallel to axis 6

Diameter of Thrust shaft under collars

as per rule 9.05

as fitted 9.5

Diameter of Tunnel shaft

as per rule 8.62

as fitted 8.34

Diameter of Screw shaft

as per rule 9.82

as fitted 10.34

Is the Screw shaft

fitted with a continuous liner the whole length of the stern tube

yes

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 joints burned

yes

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated

no

Length of Stern Bush

40½

Diameter of Propeller

12-3

Pitch of Propeller

12-6

No. of Blades

4

State whether Moveable

no

Total Surface

50 ft

square feet.

No. of Feed Pumps fitted to the Main Engines

2

Diameter of ditto

2¾

Stroke

16½

Can one be overhauled while the other is at work

yes

No. of Bilge Pumps fitted to the Main Engines

2

Diameter of ditto

3

Stroke

16½

Can one be overhauled while the other is at work

yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps

6 x 4½ x 6 Duplex (one)

No. and size of Pumps connected to the Main Bilge Line

Main engine pumps & Ballast pump, sizes as stated

No. and size of Ballast Pumps

one 6 x 8 x 8

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

none

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

yes

No. and size of suction connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room

3 @ 2½

and in Holds, &c. 2 @ 3" in fore hold:

3 @ 3" in aft hold: Tunnel Well one @ 2½

No. and size of Main Water Circulating Pump Bilge Suctions

one 4"

No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges

one 3½

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 connections with the sea direct on the skin of the ship

yes

Are they 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 Discharge Pipes 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

Suctions to fore hold

How are they protected

wood culling

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 Screw Shaft Tunnel watertight

see hull rpt

Is it fitted with a watertight door

yes

worked from top platform

MAIN BOILERS, &c.—(Letter for record (S))

Total Heating Surface of Boilers

2806 ft

Is Forced Draft fitted

no

No. and Description of Boilers

2 single ended

Working Pressure

180 lb

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes; Glasgow No 42617

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

yes

PLANS.

Are approved plans forwarded herewith for Shafting

yes

Main Boilers

yes

Auxiliary Boilers

yes

Donkey Boilers

yes

General Pumping Arrangements

app. 6.12.22

Oil fuel Burning Piping Arrangements

yes

SPARE GEAR.

State the articles supplied:—One cast iron propeller; Two each of con. rod top end;

bottom-end and main bearing bolts and nuts; one set of coupling bolts; one set of

feed and bilge pump valves; assorted bolts and nuts. Iron of various sizes; one safety

valve spring; 3 condenser tubes & 20 ferrules; 6 Boiler tubes; 4 Patent tube stoppers & 6 junk ring bolts

The foregoing is a correct description,

See Glasgow Report No 42617

—Manufacturer.



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Lloyd's Register
Foundation

W646-0197

During progress of work in shops - - -
 Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits

1223 Mar. 19. Apr. 11 14 17 23 24 25 27 30 May 2.3.4

12

Dates of Examination of principal parts - Cylinders *gls 21.1.21* Slides *gls 2.2.21*
 Covers *gls 5.11.20* Pistons *gls 8.11.20* Rods *gls 24.1.23*
 Connecting rods *gls 25.11.20* Crank shaft *gls 21.1.21* Thrust shaft *gls 2.2.21*
 Tunnel shafts *gls 24.1.21* Screw shaft *gls 26.3.23* Propeller *gls 24.1.23*
 Stern tube *gls 30.3.23* Engine and boiler seatings *11.4.23* Engines holding down bolts *30.4.23*
 Completion of pumping arrangements *4.5.23* Boilers fixed *3.5.23* Engines tried under steam *3.5.23*
 Completion of fitting sea connections *19.3.23* Stern tube *11.4.23* Screw shaft and propeller *11.4.23*
 Main boiler safety valves adjusted *3.5.23* Thickness of adjusting washers *Port Blr P-5/16 Star Blr P-5/16*
 Material of Crank shaft *Steel* Identification Mark on Do. *1090 J.E.S.*
 Material of Thrust shaft *Steel* Identification Mark on Do. *1090 J.E.S.*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *1090 J.E.S.*
 Material of Screw shafts *Steel* Identification Marks on Do. *1148 J.E.S.*
 Material of Steam Pipes *Solid drawn Copper (4" x N°7)* Test pressure *360 lbs* Date of Test *25.4.23*
 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, which was built under special survey, has now been satisfactorily secured on board: the safety valves adjusted and the Engines, Boilers and auxiliaries examined under steam and all found satisfactory*
The machinery is in a good and safe working condition and renders the vessel eligible in our opinion to have the notation of L.M.C. 5.23 in the Register Book

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 5.23. CL

The amount of Entry Fee ... £ *✓* : :
 Special *1/5th* ... £ *7* : *16-0* :
 Donkey Boiler Fee ... £ *✓* : :
 Travelling Expenses (if any) £ *✓* : :
 When applied for, *14.5.1923*
 When received, *24.5.1923*

Committee's Minute

Assigned

+ LMC 5.23
CL

CERTIFICATE WRITTEN

Wm Morrison & Co. E. Hicks.
 Engineer Surveyor to Lloyd's Register of Shipping.



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