

REPORT ON MACHINERY.

No. 77468

Received at London Office

MON. 28 JAN. 1924

Date of writing Report

19

When handed in at Local Office

21/1/24 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at Reg. Book.

South Shields

Date, First Survey 13 Feb 1923 Last Survey 7 Jan 1924

on the

S.S. "QUEENMOOR"

(Number of Visits) 7

Gross 4862

Net 2985

Master

Built at South Shields By whom built John Readhead & Sons Ltd.

Engines made at

South Shields

By whom made

John Readhead & Sons Ltd. 473

when made 1924

Boilers made at

South Shields

By whom made

John Readhead & Sons Ltd. 473

when made 1924

Registered Horse Power

Owners

Moor Line Ltd

Port belonging to

London

Nom. Horse Power as per Section 28

551

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

27" x 44" x 73"

Length of Stroke

48"

Revs. per minute

65

Dia. of Screw shaft

as per rule 14.79"

Material of screw shaft

Steel

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 water tight

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 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

Length of stern bush

5'0"

Dia. of Tunnel shaft

as per rule 13.33"

Dia. of Crank shaft journals

as per rule 14.0"

Dia. of Crank pin

14 1/2"

Size of Crank webs

26 1/2" x 9 1/8"

Dia. of thrust shaft under

collars

14 1/2"

Dia. of screw

17.9"

Pitch of Screw

17.0"

No. of Blades

4

State whether moveable

No

Total surface

96 sq. ft.

No. of Feed pumps

2

Diameter of ditto

4 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

4

Sizes of Pumps

Ballast 10 x 10 x 10

7 1/2 x 5 x 6

2 HALLS FEED. 9 1/2 x 7 1/2 x 2 1/2"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

3-3"

In Holds, &c. No. 1. 2-3 1/2", No. 2 2-3 1/2", No. 3 2-3"

No. 4. 2-3"

Tunnel well 1.2 1/2"

No. of Bilge Injections

1

sizes

8"

Connected to condenser, or to circulating pump

C.P.

Is a separate Donkey Suction fitted in Engine room & size

Yes 4 3/4 dia

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

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

Below

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

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Upper Deck

OILERS, &c.—(Letter for record (r))

Manufacturers of Steel

Messrs Spencers, Ltd, Newburn-on-Tyne.

Total Heating Surface of Boilers

8460 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 cylindrical multitubular

Working Pressure

180 lb/sq. in.

Tested by hydraulic pressure to

320 lb/sq. in.

Date of test

5.6.23

No. of Certificate

9764

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63.3 sq. ft.

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

9.62 sq. in.

Smallest distance between boilers or uptakes and bunkers or woodwork

1'-9"

INT. Mean dia. of boilers

15'-9 3/8"

Length

11'-9"

Material of shell plates

Steel

Thickness

1 5/16"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.L.R.

Long. seams

T.R.O.B.S.

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets

9 3/16"

Lap of plates or width of butt straps

20"

Percentages of strength of longitudinal joint

rivets 85.7

plate 83.2

Working pressure of shell by rules

184.3

Size of manhole in shell

16" x 12"

Size of compensating ring

None

No. and Description of Furnaces in each boiler

3 Deighton

Material

Steel

Outside diameter

4' 2 3/16"

Length of plain part

top 19 3/32"

Thickness of plates

bottom 19 3/32"

Description of longitudinal joint

welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

183

Combustion chamber plates: Material

Steel

Thickness: Sides

1 1/16"

Back

1 1/16"

Top 1 1/16"

Bottom 7/8"

Pitch of stays to ditto: Sides

10" x 9 3/8"

Back

10 1/4" x 8 3/4"

Top

10 1/4" x 9 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

180

Material of stays

Iron

Area at smallest part

2.36

Area supported by each stay

97.4 sq. in.

Working pressure by rules

219

End plates in steam space:

Material

Steel

Thickness

1 5/16"

Pitch of stays

21 3/4" x 20 1/2"

How are stays secured

Nuts & washers

Working pressure by rules

188.29

Material of stays

Area at smallest part

8.48

Area supported by each stay

44.5 sq. in.

Working pressure by rules

212

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

13 5/8" x 8 3/4"

Working pressure of plate by rules

239

Diameter of tubes

2 3/4"

Pitch of tubes

4" x 3 7/8"

Material of tube plates

Steel

Thickness: Front

7/8"

Back

3/4"

Mean pitch of stays

Pitch across wide water spaces

13 5/8"

Working pressures by rules

200

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8 1/2" x [7/8" x 2]

Length as per rule

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *2 Piston Rod top end bolts & nuts, 2 Conn. rod bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set shaft coupling bolts & nuts, 1 set feed pump valves, 1 set bilge pump valves, 1 spare propeller shaft, 1 spare propeller, 6 main boiler tubes, 3 main condenser tubes, 60 main condenser ferrules, 12 piston bolts, A quantity of assorted bolts & nuts, Iron of various sizes.*

The foregoing is a correct description,

FOR JOHN READHEAD & SONS, LIMITED

W. G. Dewar Eng^r Manag^r. Manufacturer.

Dates of Survey while building: During progress of work in shops - - *1923 Feb. 13, 15, 26. Mar. 7, 20, 26. Apr. 5, 10, 11, 20, 21, 24, 26, 30. May 1, 7, 11, 16, 18, 23, 24, 27, 29, 30. June 5, 8, 13, 14.*
During erection on board vessel - - - *15, 20, 21, 22. July 5. Nov. 8, 16, 19, 20, 28. Dec. 3, 6, 7, 11, 12, 14, 18, 19, 24, 28. Jan 17.*
Total No. of visits *49.* Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " " *✓*

Dates of Examination of principal parts—Cylinders *26.2.23* Slides *27.5.23* Covers *11.5.23* Pistons *26.4.23* Rods *5.4.23*
Connecting rods *5.4.23* Crank shaft *26.4.23* Thrust shaft *26.4.23* Tunnel shafts *10.4.23* Screw shaft *20.11.23* Propeller *20.11.23*
Stern tube *20.11.23* Steam pipes tested *6.12.23* Engine and boiler seatings *12.12.23* Engines holding down bolts *18.12.23*
Completion of pumping arrangements *24.12.23* Boilers fixed *14.12.23* Engines tried under steam *24.12.23*
Completion of fitting sea connections *28.11.23* Stern tube *28.11.23* Screw shaft and propeller *24.12.23*
Main boiler safety valves adjusted *24.12.23* Thickness of adjusting washers Port $\frac{7}{16}$, Centre $\frac{1}{2}$, Staff $\frac{1}{2}$ *7/16*
Material of Crank shaft *S.M.I. Steel* Identification Mark on Do. *4206 D M.R.* Material of Thrust shaft *S.M.I. Steel* Identification Mark on Do. *4206 D M.R.*
Material of Tunnel shafts *S.M.I. Steel* Identification Marks on Do. *4206 D M.R.* Material of Screw shafts *S.M.I. Steel* Identification Marks on Do. *4206 A M.R.*
Material of Steam Pipes *Copper. Solid drawn.* Test pressure *360 lb. 10'*
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 Section 49 of the Rules 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 constructed under special survey, The workmanship and materials are sound and good. The main and auxiliary machinery has been tried out under steam with satisfactory results. The main boilers have been tested by hydraulic pressure and their safety valves adjusted under steam to the working pressure. In my opinion, the machinery of this vessel, is now eligible for record + LMC. 1.24. T.S.C.L. in the Society's Register Book.*

It is submitted that this vessel is eligible for THE RECORD + LMC 1.24. CL. FD.

U. Lockrey 31/1/24
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *6* : *0* : *0* When applied for. *23/1/24.*
Special *N.* ... £ *102* : *10* : *0*
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
Committee's Minute *FRI. FEB 1 1924*
Assigned *+ Lmc 1.24 Cl. FD.*

Newcastle.

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



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