

Rpt. 4.

REPORT ON MACHINERY.

No. 77468.

Received at London Office

MON. 28 JAN. 1924

Date of writing Report

19

When handed in at Local Office

21/11 1924 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

South Shields

Date, First Survey 13 Feb 1923 Last Survey 17 January 1924

(Number of Visits 49)

on the

S.S. "QUEENMOOR"

Master

Built at

South Shields

By whom built

John Readhead & Sons Ltd.

Tons
Gross 4862
Net 2985
When built

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"
as fitted 15"

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"
as fitted 13 1/2"

Dia. of Crank shaft journals

as per rule 14.0"
as fitted 14 1/8"

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" 2 Hauls 5" x 6" x 6" 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

size

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

BOILERS, &c.—(Letter for record (r) ✓)

Manufacturers of Steel

Messrs Spence, 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' 6" 0"

Pressure to which they are adjusted

185 lb/sq. in.

Are they fitted with easing gear

Yes.

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.D.B.S.

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets

9 1/16"

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 1/3

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

bottom

Thickness of plates

crown 1 3/32"
bottom 1 3/32"

Description of longitudinal joint

welded.

No. of strengthening rings

Working pressure of furnace by the rules

183

Combustion chamber plates: Material

Steel

Thickness: Sides

1/16"

Back

1/16"

Top

1/16"

Bottom

7/8"

Pitch of stays to ditto:

Sides

10" x 9 3/8"

Back

10 1/4" x 8 1/4"

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

Steel

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

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 1/8"

Material of tube plates

Steel

Thickness: Front

7/8"

Back

3/4"

Mean pitch of stays

9 1/8"

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

2' 8"

Distance apart

10 1/4"

Number and pitch of stays in each

2-9 1/2"

Working pressure by rules

203

Steam dome: description of joint to shell

None.

% of strength of joint

Diameter

✓

Thickness of shell plates

✓

Material

✓

Description of longitudinal joint

✓

Diam. of rivet holes

✓

Pitch of rivets

✓

Working pressure of shell by rules

✓

Crown plates

✓

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 bidge 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. S. 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 - - 1924 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 $\frac{1}{2}$ Starb. $\frac{1}{2}$ $\frac{7}{16}$

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 D 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.

551 NHP.

The amount of Entry Fee ... £ 6 : 0 : ✓ When applied for.
Special ... £ 102 : 10 : ✓ 23/1/24.
Donkey Boiler Fee ... £ : : ✓
Travelling Expenses (if any) £ : : ✓

U. Lockney.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. FEB 1 1924

Assigned

+ Lmc 1.24 CL. FD.

CERTIFICATE WRITTEN



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