

Rpt. 4.

REPORT ON MACHINERY.

TUE JUN 3 1924

No. 28812

MON. 19 MAY. 1924

Received at London Office

Date of writing Report

19

When handed in at Local Office

17 MAY 1924

Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey

22 Feb '24

Last Survey

9 May 1924

(Number of Visits)

on the new steel S/S "PADDINGTON".

Master

Built at

Stockton

By whom built

Craig Taylor & Co S/S N° 211

Tons

Gross

Net

When built

1924

Engines made at

Sunderland

By whom made

N.E. Marine Eng Co Ltd (N° 2577)

when made

1924

Boilers made at

Sunderland

By whom made

N.E. Marine Eng Co Ltd (N° 2577)

when made

1924

Registered Horse Power

Owners

Port belonging to

London

Nom. Horse Power as per Section 28

163

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

17½-29-48

Length of Stroke

33

Revs. per minute

84

Dia. of Screw shaft

as per rule

10.21

Material of

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

no

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

Length of stern bush

3-5½

Dia. of Tunnel shaft

as per rule

8.78

as fitted

9

Dia. of Crank shaft journals

as per rule

9.22

as fitted

9.36

Dia. of Crank pin

9.36

Size of Crank webs

14x5½

Dia. of thrust shaft under

collars

9.36

Dia. of screw

13-0

Pitch of Screw

12-9

No. of Blades

4

State whether moveable

no

Total surface

52 sq ft

No. of Feed pumps

2

Diameter of ditto

2¾

Stroke

16½

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3

Stroke

16½

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

18x9x9, 5½x3½x5

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

In Engine Room

3 @ 3"

In Holds, &c.

Fore hold 2 @ 3", aft hold 3 @ 3"

No. of Bilge Injections

1

sizes

3½

Connected to condenser, or to circulating pump

b.p.

Is a separate Donkey Suction fitted in Engine room & size

yes, 3½"

Are all the bilge suction pipes fitted with

rooses

yes

Are the roses in Engine room always accessible

yes

Are the sluices on Engine room bulkheads always accessible

none

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

forward hold suction

How are they protected

under wood casing

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

Top platform

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

John Spence & Sons & David Colville & Sons Ltd.

Total Heating Surface of Boilers

2492 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

Two single ended marine

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

19-4-24

No. of Certificate

3874

Can each boiler be worked separately

yes

Area of fire grate in each boiler

35 sq ft

No. and Description of Safety Valves to

each boiler

two direct spring

Area of each valve

4.90"

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1-8"

Mean dia. of boilers

12-3½"

Length

10-6"

Thickness

1½"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

long. seams

DRS. TR

Diameter of rivet holes in long. seams

1¾"

Pitch of rivets

7½"

Lap of plates or width of butt straps

1-4 7/8"

Per centages of strength of longitudinal joint

rivets

91

plate

86

Working pressure of shell by rules

180

Size of manhole in shell

16x12

Size of compensating ring

Hanged

No. and Description of Furnaces in each boiler

2 of 2 Deighton

Material

steel

Outside diameter

3'4 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

33

Description of longitudinal joint

welded

No. of strengthening rings

—

Working pressure of furnace by the rules

184

Combustion chamber plates: Material

steel

Thickness: Sides

13

Back

35

Top

13

Bottom

13

Working pressure by rules

185

Pitch of stays to ditto: Sides

12½x9¾

Back

11½x10½

Top

12½x9¾

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

185

Material of stays

steel

Area at smallest part

2.360"

Area supported by each stay

117

Working pressure by rules

180

End plates in steam space:

Material

steel

Thickness

1¾"

Pitch of stays

2-1x1-6½"

How are stays secured

DN&W

Working pressure by rules

180

Material of stays

steel

Area at smallest part

7.670"

Area supported by each stay

4620"

Working pressure by rules

184

Material of Front plates at bottom

steel

Thickness

¾"

Material of Lower back plate

steel

Thickness

¾"

Greatest pitch of stays

14½x14½"

Working pressure of plate by rules

187

Diameter of tubes

3¼"

Pitch of tubes

4¾x4½"

Material of tube plates

steel

Thickness: Front

7

Back

¾"

Mean pitch of stays

10½"

Pitch across wide water spaces

14½"

Working pressures by rules

182

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

20 8/16x15"

Length as per rule

2-7½"

Distance apart

12½"

Number and pitch of stays in each

2 @ 9¾"

Working pressure by rules

182

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

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

W621-0020

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— Two connecting rod Top and bottom end bolts and nuts. Two main bearing bolts. one set of coupling bolts. one set of feed and bilge pump valves. Iron and bolts of various sizes. one propeller *W.M.*

The foregoing is a correct description,
THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

W. Campbell Allen
Assistant Secretary.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1924 Feb. 22. 26. Mar. 6. 27. Apr. 27. 29. 11. 16. 18. 24. May. 25. 29.
During erection on board vessel - - -
Total No. of visits 16

Is the approved plan of main boiler forwarded herewith *yes*
" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2-4-24 Slides 14-4-24 Covers 7-4-24 Pistons 14-4-24 Rods 9-4-24
Connecting rods 9-4-24 Crank shaft 2-4-24 Thrust shaft 9-4-24 Tunnel shafts 24-4-24 Screw shaft 24-4-24 Propeller 24-4-24
Stern tube 24-4-24 Steam pipes tested 2-5-24 Engine and boiler seatings 14-4-24 Engines holding down bolts 8-5-24
Completion of pumping arrangements 9-5-24 Boilers fixed 8-5-24 Engines tried under steam 9-5-24
Completion of fitting sea connections 14-4-24 Stern tube 2-5-24 Screw shaft and propeller 2-5-24
Main boiler safety valves adjusted 9-5-24 Thickness of adjusting washers Port boiler $F \frac{3}{8} A \frac{5}{16}$ Sld boiler $F \frac{3}{8} A \frac{5}{16}$
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S NO 62* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S NO 62*
Material of Tunnel shafts *Steel* Identification Marks on Do. *L.C.D. date as above* Material of Screw shafts *Steel* Identification Marks on Do. *date as above*
Material of Steam Pipes *Copper* Test pressure 400

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 materials and workmanship are good.
The machinery has been constructed under special survey and is eligible in our opinion for Classification and the record + LMC 5.24

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 5.24. CL.

W. S. J. W.
3/6/24

S. Davis & Wm Morrison
Engineer Surveyors to Lloyd's Register of Shipping.

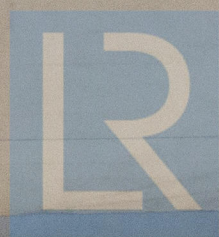
The amount of Entry Fee ... £ 3 : : When applied for,
Special ... £ 40 : 15 : 17 MAY 1924
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 13 JUN 1924

Committee's Minute

Assigned

+ LMC 5.24
C.L.

CERTIFICATE WRITTEN



© 2020

Lloyd's Register
Foundation