

REPORT ON MACHINERY.

No. 69704

Received at London Office

MON. MAY 13 1907

Date of writing Report

19

When handed in at Local Office

19

Port of London

WED. 29 MAY 1907

No. in Survey held at

Luton

Date, First Survey

Feb 2

Last Survey

Apr 29 1907

Reg. Book.

3 Supp on the Engines 8° 1672 for S. S City of London

(Number of Visits)

18

Master

Built at

Selby

By whom built

Cochrane & Sons

When built

1907

Engines made at

Luton

By whom made

The Marshall & West Hydraulic Eng Co

when made

1907

Boilers made at

Luton

By whom made

Ridgway & Co R. Stephenson & Co

when made

1907

Registered Horse Power

Owners

London & Peterhead S. F. Co

Port belonging to

Peterhead

Nom. Horse Power as per Section 28

35

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Comp. Invert. Surface condensing

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

11" - 24"

Length of Stroke

16"

Revs. per minute

150

Dia. of Screw shaft

as per rule 5.367"

Material of

Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

No

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

1 - 10"

Dia. of Tunnel shaft

as per rule 4.76"

Dia. of Crank shaft journals

as per rule 4.94"

Dia. of Crank pin

5 1/4"

Size of Crank web

3 1/4" x 2 1/8"

Dia. of thrust shaft under

collars

Dia. of screw

5 1/4"

Pitch of Screw

7 - 9"

No. of Blades

4

State whether moveable

No

Total surface

15.5 sq ft

No. of Feed pumps

One

Diameter of ditto

2"

Stroke

9"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

One

Diameter of ditto

2"

Stroke

9"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

6" Steam Cyl. 2 1/4" feed pump

x 6" Stroke

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

In Engine Room

Three 2" & one 2 1/2" 3" water pump

In Holds, &c.

one 2" & Ejector suction

No. of Bilge Injections

1

sizes

2 1/2"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2"

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

0

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

just 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

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

Dates of examination of completion of fitting of Sea Connections

30.3.07

of Stern Tube

30.3.07

Screw shaft and Propeller

30.3.07

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

—

worked from

—

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

750 sq ft

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

140 lbs

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

W1412 0021

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Sajo. in _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— Two each top and bottom end connecting bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set each air circulating, feed bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

Manufacturer.

ENGINEERING COY. LTD.
A. E. L. H. M.

Dates of Survey while building { During progress of work in shops - - 16th March - 13. 20. April 5. 16. 26. 30
During erection on board vessel - - 11th. 2. May 26. 30. April 26. 30. May 8. 15. 17. 22. 23. 25
Total No. of visits 18

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts—Cylinders 20.3.07 Slides 20.3.07 Covers 20.3.07 Pistons 20.3.07 Rods 16.4.07
Connecting rods 16.4.07 Crank shaft 5.4.07 Thrust shaft ✓ Tunnel shafts 20.3.07 Screw shaft 13.3.07 Propeller 13.3.07
Stern tube 13.3.07 Steam pipes tested 15.5.07 Engine and boiler seatings 30.3.07 Engines holding down bolts 17.5.07
Completion of pumping arrangements 25.5.07 Boilers fixed 17.5.07 Engines tried under steam 25.5.07
Main boiler safety valves adjusted 23.5.07 Thickness of adjusting washers 9/32 7/16 S.
Material of Crank shaft Steel Identification Mark on Do. No 2 Material of Thrust shaft ✓ Identification Mark on Do. ✓
Material of Tunnel shafts Steel Identification Marks on Do. No 398 Material of Screw shafts Steel Identification Marks on Do. No 398
Material of Steam Pipes Solid drawn Copper Test pressure 280 lbs □

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines have been constructed under special survey, the material has been tested & the workmanship is good, they have been sent to Selby for the purpose of fitting on board.

The above machinery has been fitted on board, tested under steam, and found satisfactory, and is eligible in my opinion to be classed with the notation of * L. M. 6. 5. 07 in Register Book, when safety valve easing gear is fitted

James Barclay

The amount of Entry Fee. £ 1 : 0 : 0 When applied for, 13/5/07
Special 18.8. £ 8 : 13 : 4 When received, 24/5/07
Donkey Boiler Fee 19 : 19 : 19
Travelling Expenses (if any) £ : 19 : 19

Committee's Minute

Assigned

FRI 14 JUN 1907

+ L M 6 5 07

MACHINERY CERTIFICATE
WRITTEN.

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

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Lloyd's Register
Foundation