

REPORT ON MACHINERY.

No. 69574
TUES. 14 MAY 1907

Port of

London

Received at London Office

1907

No. in Survey held at

Yarmouth

Date, first Survey

Jan 23

Last Survey

Mar 1 1907

Reg. Book.

688 on the

S. H. Lord Charles Beesford

(Number of Visits

6 + 9 = 15

ap 25

Master

Built at

Selby

By whom built

Cochrane & Sons

When built

1907

Engines made at

Yarmouth

By whom made

Crabtree & Co. Ltd

when made

1907-3

Boilers made at

Stockton

By whom made

Riley Bros

when made

1907

Registered Horse Power

Owners

Lowestoft F. H. & Co. Ltd

Port belonging to

Lowestoft

Nom. Horse Power as per Section 28

32

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound Surface Condenser

No. of Cylinders

two

No. of Cranks

two

Dia. of Cylinders

11' 4 24"

Length of Stroke

16"

Revs. per minute

107

Dia. of Screw shaft

as per rule 5 1/2"

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

two liners lapped

Length of stern bush

1'-10"

Dia. of Tunnel shaft

as per rule 4.69"

Dia. of Crank shaft journals

as per rule 4.9"

Dia. of Crank pin

5"

Size of Crank webs

3 1/2 x 7"

Dia. of thrust shaft under

collars

5"

Dia. of screw

6'-0"

Pitch of Screw

7'-9"

No. of Blades

3

State whether moveable

no

Total surface

16 1/2'

No. of Feed pumps

one

Diameter of ditto

2 1/8"

Stroke

8"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

one

Diameter of ditto

2 1/8"

Stroke

8"

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 3" Water pump

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

In Engine Room Three 2' + one 2 1/2'

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 awash

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

15.3.07

of Stern Tube

15.3.07

Screw shaft and Propeller

15.3.07

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

640 1/2

Is Forced Draft fitted

no

No. and Description of Boilers

See Separate report

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

plate

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

bottom

Thickness of plates

crown

bottom

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

W1513-0109

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	By whom made	When made	Where fixed
Made at	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
Working pressure	Area of each	Pressure to which they are adjusted	Date of adjustment	Description of Safety
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	
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint
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	Dates of survey	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes		

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

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops— 1906 Jan 23 Feb 8 14 18 27 March
 During erection on board vessel— 1907:— Hull Mar 12 15 26 30 Apr 10 11 19 22 25
 Total No. of visits (London 6) (9 Hull)

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 18.2.07 Slides 18.2.07 Covers 18.2.07 Pistons 14.3.07 Rods 14.3.07
 Connecting rods 14.3.07 Crank shaft 14.3.07 Thrust shaft 14.3.07 Tunnel shafts 28.2.07 Screw shaft 28.2.07 Propeller 28.2.17
 Stern tube 18.2.07 Steam pipes tested 10.4.07 Engine and boiler seatings 15.3.07 Engines holding down bolts 22.4.07
 Completion of pumping arrangements 25.4.07 Boilers fixed 22.4.07 Engines tried under steam 25.4.07
 Main boiler safety valves adjusted 25.4.07 Thickness of adjusting washers 1/4" 1/2"
 Material of Crank shaft steel Identification Mark on Do. 1840 Material of Thrust shaft steel Identification Mark on Do. 1840
 Material of Tunnel shafts steel Identification Marks on Do. 373 F.L.S. Material of Screw shafts steel Identification Marks on Do. 370 F.L.S.
 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, & in accordance with the rules. The workmanship is good. They have been forwarded to Selby for fitting on board, where the H.P. piston valve will also be examined & spare gear supplied. In my opinion the vessel will be eligible for the next + L.M.C. with date when the survey is completed. The high pressure piston valve, and spare gear have been examined and found in order. The engines fitted on board, tested under steam and found satisfactory, and they are now eligible in my opinion to be classed with the notation of **L.M.C. 407** in the Register Book.

James Barclay
 1.5.07

It is submitted that this vessel is eligible for THE RECORD. **L.M.C. 407**

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

The amount of Entry Fee... £ 1 : 0 : 0 When applied for.
 Special ... £ 2 : 13 : 4 15.5.07
 Donkey Boiler Fee ... £ - : 16 : 5 15.5.07
 Travelling Expenses (if any) £ 1 : 3 : 6 15.5.07
 Committee's Minute £ 4-16-10 paid 30.10.07
 Assigned FRI. 17 MAY 1907

MACHINERY CERTIFICATE WRITTEN.

Lloyd's Register Foundation