

Rpt. 4.

REPORT ON MACHINERY

Hull No. 18958

No. 69573

JUES. 14 MAY 1907

Port of London

Received at London Office 6/4/07

No. in Survey held at

Yarmouth

Date, first Survey

Jan 23

Last Survey

Mar 21

1907

Reg. Book.

69466 on the

Se. K. Lord Claude Hamilton

(Number of Visits

6 + 10 =

Hull Apr 25 1907

Master

Built at

Selby

By whom built

Cochrane Sons

When built

1907

Engines made at

Yarmouth

By whom made

Crabtree & Co. Ltd No 337

when made

1907-3

Boilers made at

Stockton

By whom made

Riley Bros

when made

Registered Horse Power

Owners

Lowestoft F. H. F. 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 Condensing

No. of Cylinders

two 5 1/2

No. of Cranks

two

Dia. of Cylinders

11" x 24"

Length of Stroke

16"

Revs. per minute

104

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 1/2

Dia. of Crank shaft journals

as per rule 4 1/2

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 1/2" 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"

In Holds, &c.

one 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 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

yes

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

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

W1513-0120

VERTICAL DONKEY BOILER—

Manufactured of Steel

No. *1892* Description *Vertical Donkey Boiler*
 Made at *London* By whom made *James Barclay*
 Working pressure *100 lbs* tested by hydraulic pressure to *150 lbs* Date of test *1907 Jan 23* When made *1884* Where fixed *on board*
 Valves *2* No. of Safety Valves *2* Area of each *10 sq in* Pressure to which they are adjusted *100 lbs* Fire grate area *10 sq ft* Description of Safety Valves *Spring loaded*
 If fitted with easing gear *No* If steam from main boilers can enter the donkey boiler *No* Date of adjustment *1907*
 Material of shell plates *Steel* Thickness *1/2 in* Range of tensile strength *30 tons* Dia. of donkey boiler *18 in* Length *4 ft*
 Dia. of rivet holes *1/4 in* Whether punched or drilled *Punched* Descrip. of riveting long. seams *Double*
 Working pressure of shell by rules *100 lbs* Thickness of shell crown plates *1/2 in* Radius of do. *18 in* No. of stays to do. *2* Dia. of stays *1/2 in*
 Diameter of furnace Top *18 in* Bottom *18 in* Length of furnace *4 ft* Thickness of furnace plates *1/2 in* Description of joint *Double*
 Working pressure of furnace by rules *100 lbs* Thickness of furnace crown plates *1/2 in* Stayed by *2*
 Diameter of uptake *18 in* Thickness of uptake plates *1/2 in* Thickness of water tubes *1/2 in* Dates of survey *1907 Jan 23*

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, a quantity of assorted bolts nuts*
 The foregoing is a correct description,
 Manufacturer. *James Barclay*

Dates of Survey while building
 During progress of work in shops— *1907 Jan 23 Feb 8-14-18-27 Mar 31*
 During erection on board vessel— *Hull: Mar. 12-15-26-30 Apr 9-10-11-19-22-25*
 Total No. of visits *(6 London) (10 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 *28.2.07*
 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 *1/2 in 1/4 in*
 Material of Crank shaft *Steel* Identification Mark on Do. *1841* Material of Thrust shaft *Steel* Identification Mark on Do. *1841*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *374 F.L.* Material of Screw shafts *Steel* Identification Marks on Do. *371 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 Lloyds for fitting on board, where the H.P. piston valve will be examined & the spare gear supplied. In my opinion the vessel will be eligible for the record + 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. 4.07 in the Register Book.*

James Barclay
 1.5.07

It is submitted that this vessel is eligible for THE RECORD. LMC 4.07.

The amount of Entry Fee... £ *1*
 Special... £ *2*
 Donkey Boiler Fee *Hull* £ *13*
 Travelling Expenses (if any) £ *3*
 Committee's Minute *13 April 1907*

Frank L. Lingeron
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 14.5.07

Assigned

MACHINERY CERTIFICATE
 WRITTEN.