

pt. 4.

REPORT ON MACHINERY

No. 22770.

Date of writing Report

19

When handed in at Local Office

2. 6. 1913

Received at London Office

WED. JUN. - 4. 1913

No. in Survey held at

Clydebank

Date, First Survey

15 Port of Glasgow

29. 5. 1913

Reg. Book.

on the

% Clandeboye

(Number of Visits)

17

Master

W. blint

Built at

Bowling

By whom built

Scott & Sons No. 44

Tons

Gross 614

Net 233

When built 1913

Engines made at

Clydebank

By whom made

Aitchison Blair & Co No. 82

when made 1913

Boilers made at

Glasgow

By whom made

Dunsmuir & Jackson Ltd. No. 8

when made 1913

Registered Horse Power

Owners J. Kelly Lim

Port belonging to Belfast

Dom. Horse Power as per Section 28

113

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.

Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

15"

25 1/2"

41"

Length of Stroke

30"

Revs. per minute

103

Dia. of Screw shaft

as per rule 8.37

as fitted 8.76

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

Is 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

yes

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush

2'-10 5/8"

Dia. of Tunnel shaft

as per rule 7.6"

as fitted none

Dia. of Crank shaft journals

as per rule 7.99

as fitted 8 1/4"

Dia. of Crank pin

8 1/4"

Size of Crank webs

11 1/4" x 5 1/2"

Dia. of thrust shaft under

collars 8 1/4"

No. of Feed pumps

2

Diameter of ditto

2 1/4"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 1/4"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2 duplex

Sizes of Pumps

7-8" x 8"

7-4 1/2" x 8"

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

In Engine Room

1 of 2"

In Holds, &c.

Hold 2 of 2 1/2"

No. of Bilge Injections

1

sizes

4"

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room

yes

size

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

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

bilge

How are they protected

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

Dates of examination of completion of fitting of Sea Connections

7. 5. 13.

of Stern Tube

7. 5. 13.

Screw shaft and Propeller

7. 5. 13.

Is the Screw Shaft Tunnel watertight

none

Is it fitted with a watertight door

yes

worked from

yes

BOILERS, &c. (Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

1938

Is Forced Draft fitted

no

No. and Description of Boilers

one

Single ended

see separate

report

Working Pressure

180 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

2 direct spring

Area of each valve

5.94

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

6'-6"

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

mg. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages 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

crow

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

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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

002449-002456-0041

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 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. seams Rivets
 Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Plates
 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 Radius of do. Stayed by
 Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— 2 top end, 2 bottom end, 2 main bearing and set of coupling bolts nuts - Set of feed & bilge pump valves. Assorted iron, bolts nuts.

ANTHISON, BLAIR LTD.

The foregoing is a correct description,

Manufacturer.

Dates of Survey
 During progress of work in shops - - 1912 Dec 9 1913 Jan 7 8 14 29 Feb 7 17 25 Mar 10 14 Apr 10 May 7 15 19 25 26
 During erection on board vessel - - -
 Total No. of visits 17

Is the approved plan of main boiler forwarded herewith no

" " " donkey " " " none

Dates of Examination of principal parts—Cylinders 29.1.13 Slides 29.1.13 Covers 25.2.13 Pistons 25.2.13 Rods 29.1.13
 Connecting rods 25.2.13 Crank shaft 4.2.13 Thrust shaft 25.2.13 Tunnel shafts — Screw shaft 25.2.13 Propeller 10.3.13
 Stern tube 29.1.13 Steam pipes tested 19.5.13 Engine and boiler seatings 7.5.13 Engines holding down bolts 23.5.13
 Completion of pumping arrangements 23.5.13 Boilers fixed 23.5.13 Engines tried under steam 29.5.13
 Main boiler safety valves adjusted 26.5.13 Thickness of adjusting washers PV $\frac{15}{64}$ SV $\frac{17}{64}$
 Material of Crank shaft steel Identification Mark on Do. 82 HC Material of Thrust shaft steel Identification Mark on Do. 82 HC
 Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts steel Identification Marks on Do. 82 HC
 Material of Steam Pipes Copper Test pressure 360 lbs

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the rules and has been run working satisfactorily under steam.

This machinery is eligible in my opinion to be classed + LMC 5-13

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 5-13.

The amount of Entry Fee .. £ 2 : 0 :
 Special .. £ 16 : 19 :
 Donkey Boiler Fee .. £ 10 : 10 :
 Travelling Expenses (if any) £ : :
 When applied for, 9.6.13
 When received, 5/6/13

Committee's Minute GLASGOW 3-JUN-1913

Assigned + LMC 5-13

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



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