

Rpt. 4.

REPORT ON MACHINERY

No. 34885
WED JUN 12 1918

Received at London Office

Date of writing Report

When handed in at Local Office

Port of Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey 31/5/18

Last Survey 28/5/1918

on the SS "Clan MacKenzie"

(Number of Vents)

Master

Built at

By whom built

Tons { Gross
Net
When built

Engines made at

Glasgow

By whom made

J. W. Henderson & Co. Ltd (575) when made 1918

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

(610)

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

27"-44"-73"

Length of Stroke 48

Revs. per minute 78

Dia. of Screw shaft

as per rule

Material of

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

Is the after end of the liner made water tight

in the propeller boss

If the liner is in more than one length are the joints burned

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

Dia. of Tunnel shaft

as per rule 13.319

Dia. of Crank shaft journals

as per rule 13.99

Dia. of Crank pin 14 1/2

Size of Crank webs 9 x 22

Dia. of thrust shaft under

collars

Dia. of screw 18-6

Pitch of Screw 17-3

No. of Blades 4

State whether moceable Yes

Total surface 100 sq

No. of Feed pumps 2

Diameter of ditto 4

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 4

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they sized sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 9837

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

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

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IS A DONKEY BOILER FITTED? *none*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end, 2 bottom end, 2 main bearing + 3 crank shaft, bolt + nuts, feed + bilge pump, suction + discharge valves, 6 cist. covers, 6 steam chest + 12 pin ring, bolts + nuts, 6 air p. valves. Packing for piston rods + valve spindles. 1 spring for feed pump escape valve, 1 valve den for main engine stop valve. 1 filter bucket. 56 Coir felts for filter. 1 set Cir. p. piston rings. 1 crank pin ^{main bearing} + 1 crownhead bush, in halves for Cir. p. Assorted bolts + nuts + iron

The foregoing is a correct description.

1918 *DAVID & W. HENDERSON & CO. LTD.*

H. Y. Peterkin

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 19/1 May 3, July 4, 5, Aug 14, 20, 24, Sept 6, 18, 24, Oct 1, 2, 8, 9, 18, 22, 24, 31, Nov 9, 12, Dec 11, 21.
During erection on board vessel -- 24 1918 Jan 7, 10, 14, 16, 25, Feb 4, 5, 7, 12, 21, 26, 28, Mar 12, 21, 22, 25, Apr 14, 26, 30, May 6
Total No. of visits 45.

Is the approved plan of main boiler forwarded herewith *no*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 7/2/18 Slides 7/2/18 Covers 7/2/18 Pistons 7/2/18 Rods 7/2/18

Connecting rods 7/2/18 Crank shaft 4/12/18 Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft *Steel* Identification Mark on Do. *070 11/2/18* Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

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

These engines have been built under special survey the materials and workmanship are of good description. They have now been forwarded to Portsmouth where they are to be fitted on board the vessel.

The amount of Entry Fee ... £
Special ... £ 54 15 6
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for,

11.6.1918

When received,

12.8.1918

A. McEneaney

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

Committee's Minute GLASCOW 11 JUN 1918

Assigned

TRANSMIT TO LONDON

FRI. 13 SEP. 1918

FRI. 11 NOV. 1919

FRI. 5 DEC. 1919

FRI. MAR. 19 1920

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