

## REPORT ON MACHINERY.

No. 39326

Date of Report

10

When handed in at Local Office

7-11-

1919

Port of

Received at London Office

No. in Survey held at  
Reg. Book.Date, First Survey 17<sup>th</sup> Sept. 1918 Last Survey 24<sup>th</sup> Oct. 1919

on the

Main Engines No 2 F (Hogboughlan &amp; Sons Vancouver B.C.)

(Number of Visits 26)

Tons  
Gross  
Net

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &amp;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

Dia. of Screw shaft

as per rule 14.7

Material of

as fitted screw shaft

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 13.3"

Dia. of Crank shaft journals

as per rule 13.9"

as fitted 14.2"

Dia. of Crank pin 14.2"

Size of Crank webs 9x28

Dia. of thrust shaft under

collars —

Dia. of screw —

Pitch of Screw —

No. of Blades —

State whether moceable —

Total surface —

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work —

No. of Bilge pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work —

No. of Donkey Engines —

Sizes of Pumps —

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

In Engine Room —

In Holds, &amp;c. —

No. of Bilge Injections — sizes — Connected to condenser, or to circulating pump — Is a separate Donkey Suction fitted in Engine room &amp; 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 fixed 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

MILERS &amp;c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

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

part

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 stay

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

fitted 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

Lloyd's Register  
Foundation

W1335-0110



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		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets 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 bolts & nuts 2 bottom end bolts & nuts 6 coupling bolts & nuts, 2 main bearing bolts & nuts, 1 set of feed and bilge pump valves, Bolts & nuts assorted Iron and other articles as required by Specification

The foregoing is a correct description,  
Manufacturer.

For DAVID & WILKINSON & CO. LTD.

*W. J. Patrick* DIRECTOR

Dates of Survey while building  
During progress of work in shops -- 1918 Sept 14 20 23 24 Oct 1 8 9 14 29 Nov 20 1919 Jan 9 29 Mar 17 Apr 8 30 May 12 28 June 4 10  
During erection on board vessel -- July 8 Sept 12 Oct 10 15 22 24  
Total No. of visits 26

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 8.4.19 Slides 8.4.19 Covers 8.4.19 Pistons 4.6.19 Rods 4.6.19

Connecting rods 8.7.19 Crank shaft 1.5.19 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. *LL OYDS* 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 —

General Remarks (State quality of workmanship, opinions as to class, &c. *These main engines have been constructed under Special Survey in accordance with the Rules and approved Plans materials and workmanship are good.*

*The engines from after end of crankshaft up to and including triple branch piece on engine stop valve have now been despatched to Messrs J. Gough & Sons Vancouver B.C.*

*The work covered by the Specification has been satisfactorily carried out and completed with the following exceptions:— (1) The cylinders and casings have not been tested by hydraulic pressure (2) The Contraflo attachment for the Condenser, which is being supplied by the Contraflo Co, has not been fitted into place. The makers state arrangements are being made for this work to be completed on arrival of the engines in Canada*

The amount of Entry Fee .. £ : : When applied for,  
Special .. £ 50. : :  
Donkey Boiler Fee .. £ : : When received,  
Travelling Expenses (if any) £ : : 10/21 1919

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

Committee's Minute GLASGOW 11 NOV 1919

Assigned *No action*



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