

REPORT ON MACHINERY. No. 22300.

Port of GlasgowNo. in Survey held at Glasgow
Reg. Book.Date, first Survey 24th JuneLast Survey Nov 15th 1904

(Number of Visits)

on the T. S. S. "Montcalm"

Master

Built at GlasgowBy whom built Haggin & LaidlawGross
Tons
Net
When built 1904Engines made at PaisleyBy whom made Fleming & Fergusonwhen made 1904Boilers made at RenfrewBy whom made Babcock & Wilcoxwhen made 1904

Registered Horse Power

Owners Canadian GovernmentPort belonging to OttawaNom. Horse Power as per Section 28 840Is Refrigerating Machinery fitted NoIs Electric Light fitted Yes - Charles

ENGINES, &c.—Description of Engines

Twin screw tripleNo. of Cylinders 6No. of Cranks 6Dia. of Cylinders 23 1/2 38 64Length of Stroke 42Revs. per minute 82

Dia. of Screw shaft

as per rule 12-9Material of steelas fitted 13 3/4

screw shaft

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 —

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 paintedLength of stern bush 5-8 3/4

Dia. of Tunnel shaft

as per rule 12 1/4as fitted 12 1/4

Dia. of Crank shaft journals

as per rule 13-31as fitted 13 3/4Dia. of Crank pin 12 3/4Size of Crank webs 8 1/2

Dia. of thrust shaft under

collars 13Dia. of screw 12-6Pitch of screw 22-0No. of blades 4State whether moveable YesTotal surface 50

each

No. of Feed pumps 4Diameter of ditto 3 1/2Stroke 24Can one be overhauled while the other is at work YesNo. of Bilge pumps 4Diameter of ditto 4 1/2Stroke 24Can one be overhauled while the other is at work YesNo. of Donkey Engines 2Sizes of Pumps 9x6x10 & 6No. and size of Suctions connected to both Bilge and Donkey pumps "In Engine Room 1In Holds, &c. Fore hold 2-2 1/2, Bunker 2-2 1/2No. of bilge injections 2sizes 5Connected to condenser, or to circulating pump pumpIs a separate donkey suction fitted in Engine room & size Yes 3"Are all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible —Are all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks BothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the discharge pipes above or below the deep water line AboveAre they each fitted with a discharge valve always accessible on the plating of the vessel YesAre the blow off cocks fitted with a spigot and brass covering plate YesWhat pipes are carried through the bunkers Feed SuctionsHow are they protected Wood coveringAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launchIs it fitted with a watertight door Yesworked from Top gratings

BOILERS, &c.—

(Letter for record)

Total Heating Surface of Boilers 12800Is forced draft fitted Lead stokeholdNo. and Description of Boilers Four Babcock & WilcoxWorking Pressure 200Tested by hydraulic pressure to 400 lbsDate of test 28-10-04Can each boiler be worked separately YesArea of fire grate in each boiler 87 1/4

No. and Description of safety valves to

each boiler 2 CockburnArea of each valve 8-29Pressure to which they are adjusted 205 lbsAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork StokeholdMean dia. of boilers 3-6Length 15-10 1/2Material of shell plates steelThickness 9 1/2Range of tensile strength 24-27Are they welded or flanged NoDescrip. of riveting: cir. seams R. L.long. seams R. L. & TBS.Diameter of rivet holes in long. seams 7/8Pitch of rivets 3 1/2Lap of plates or width of butt straps 7 1/4

Per centages of strength of longitudinal joint

rivets 103Working pressure of shell by rules 200 lbsSize of manhole in shell 15" x 11"Size of compensating ring Flanged

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

W1537-0122

DONKEY BOILER— No. Description *None*

Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____
Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *1 Section crank shaft, 8 propeller blades, 2 sets studs & nuts for propeller blades, set HP piston springs, set air pump valves, set feed & bilge pump valves, pair of clamps for connecting broken shaft, etc., & the bolts & nuts required by the Rules.*
The foregoing is a correct description, *Fleming & Ferguson, Limited*

Manufacturer. *Williamson* Managing Director

Dates of Survey { During progress of work in shops— 1904 June 24, July 1, 5, 8, Augt 2, 8, 13, 29, 30, Sept 5, 14, 21, 22
while building { During erection on board vessel— 23, 27, 28, 30, Oct 3, 4, 12, 13, 17, 18, 21, 27, 28, 31, Nov 4, 10, 15.
Total No. of visits— 30

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " *None*

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

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

This vessel is in our opinion eligible to have notation "** L.M.C. 11.04. Water Tube Boilers*" in the Register-Book Boilers to be surveyed annually.

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

** L.M.C. 11.04 F.D. ELECTRIC LIGHT Water tube boilers Subject to annual Survey.*

Kaf.
22.11.04
22.11.04

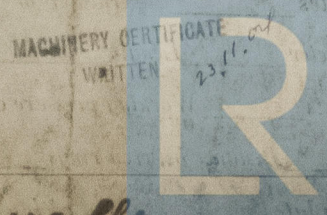
The amount of Entry Fee.. £ 3 : - : When applied for, 21 NOV 1904
Special .. £ 62 : - :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : :
When received, 23/11/1904

A. H. Gardner Smith. A. McLeod
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Glasgow 21 NOV 1904

Assigned

+ L.M.C. 11.04. "Water Tube Boilers" Boilers to be surveyed annually.



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