

Rpt. 5.

REPORT ON BOILERS.

No. 153.

Rec'd Halifax June 12th 1920.

Received at London Office

MON 3 JAN 1921

Date of writing Report June 5th 1920 When handed in at Local Office June 7th 1920 Port of Toronto

No. in Survey held at

Toronto

Date, First Survey June 9thLast Survey Nov 20th 1920

Reg. Book.

53802 on the Halifax Shipyard Ltd Hull No. 112

(Number of Visits)

Gross 5384.30

Tons Net 331.36

Master J. D. McKenzie

Built at Halifax

By whom built Halifax Shipyard Ltd

When built 1920

Engines made at Amherst N. S.

By whom made Rott Engine Works Ltd

When made 1920

Boilers made at Toronto

By whom made Canadian Allis Chalmers

When made 1920

Registered Horse Power

Owners Canadian Government Merchant Marine Ltd

Port belonging to Halifax N. S.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Midvale H & Ordnance Co. Philadelphia.

(Letter for record 3. 5. B.) Total Heating Surface of Boilers 8565 Is forced draft fitted yes No. and Description of

Boilers 3. 5. E. Multitubular Working Pressure 180 Tested by hydraulic pressure to 360 Date of test May 13th

No. of Certificate 113-114-115 Can each boiler be worked separately yes Area of fire grate in each boiler 74.75 sq ft No. and Description of

safety valves to each boiler 2 spring loaded Area of each valve 9.62 Pressure to which they are adjusted 180

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler —

Smallest distance between boilers or uptakes and bunkers or woodwork — Mean dia. of boilers 15'-6" Length 11'-6"

Material of shell plates O. H. Steel Thickness 1 3/8 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Double long. seams Triple Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 9 7/8

Lap of plates or width of butt straps 10 3/4 Per centages of strength of longitudinal joint rivets 88.9 plate 85.71 Working pressure of shell by

rules 202 Size of manhole in shell 12" x 16 Size of compensating ring 37 1/2 x 33 No. and Description of Furnaces in each

boiler 3. Corrugated Material O. H. Steel Outside diameter 50 1/4 Length of plain part top 5/8 Thickness of plates crown 5/8 bottom

Description of longitudinal joint welded No. of strengthening rings — Working pressure of furnace by the rules 200 Combustion chamber

plates: Material O. H. Steel Thickness: Sides 7/8 Back 7/8 Top 7/8 Bottom 1 1/8 Pitch of stays to ditto: Sides 8' x 8' Back 8' x 8'

Top 8' x 8 1/4 If stays are fitted with nuts or riveted heads nuts outside cc Working pressure by rules 181 Material of stays O. H. Steel Area at

smallest part 14.96 Area supported by each stay 66 Working pressure by rules 198 End plates in steam space: Material O. H. Steel Thickness 1 1/8

Pitch of stays 16 1/2 x 16 1/4 How are stays secured Double nut Working pressure by rules 186 Material of stays O. H. Steel Area at smallest part 14.43

Area supported by each stay 266 Working pressure by rules 186 Material of Front plates at bottom O. H. Steel Thickness 1 3/4 Material of

Lower back plate O. H. Steel Thickness 1 3/8 Greatest pitch of stays 8' x 8 1/4 Working pressure of plate by rules 190 Diameter of tubes 3"

Pitch of tubes 4' x 4 3/4 Material of tube plates O. H. S. Thickness: Front 1 3/8 Back 3/4 Mean pitch of stays 8' x 8 3/4 Pitch across wide

water spaces 14 Working pressures by rules 260 Girders to Chamber tops: Material O. H. Steel Depth and thickness of

girder at centre 9' x 1 1/2 Length as per rule 24 6 1/2 Distance apart 8 1/8 Number and pitch of Stays in each 3 c 8"

Working pressure by rules 207 Steam dome: description of joint to shell — % of strength of joint —

Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

UPERHEATER. Type — Date of Approval of Plan — Tested by Hydraulic Pressure to —

Date of Test — Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —

Diameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

VERTICAL DONKEY BOILER— No. — Description — Manufacturers of steel —

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 — 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 — 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 —

The foregoing is a correct description,

Canadian Allis Chalmers Ltd Manufacturer.

Dates of Survey while building During progress of work in shops — — — — —

During erection on board vessel — — — — —

Total No. of visits 5-8

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

W1309-0029

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been constructed under Special Survey and of good material + workmanship. They have been dispatched to the Halifax Shipyards Ltd. Halifax, to be fitted on board their Hull No. 1. & will be eligible for record with date when completed with the machinery.

These boilers have been satisfactorily fitted on board the S.S. "Canadian Mariner". Halifax Shipyards Hull No. 1, together with mountings and connections and tried under steam with satisfactory results. A hydraulic test was also put on the boilers when completed to 270 lb. In my opinion, they are eligible for record of LMC VI-20 with machinery.

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £	:	:	When applied for,
Special	£ 79. 65 :		June 7 1920
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	1 : 00 :		19 11 21

Committee's Minute

FRI. 11 FEB. 1921

Assigned

Robert C Blyth. J. Moon
Engineer Surveyor to Lloyd's Register of Shipping



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Foundation