

Rpt. 5.

REPORT ON BOILERS.

No. 162

Rec'd Halifax Aug 17 1920

Received at London Office WED APR 19 1921

Date of writing Report Aug 4th 1920 When handed in at Local Office Aug 7th 1920 Port of Toronto

No. in Survey held at Toronto Date, First Survey June 9th 1920 Last Survey July 25th 1921

Reg. Book. 53793 on the Halifax Shipyards Ltd. Hull No. 2 (Number of Visits 53) Tons Gross 5408.20
Net 3320.98

Master H. Wymen Built at Halifax By whom built Halifax Shipyards When built 1921

Engines made at Amherst N.S. By whom made Robt Eng-in Works Co When made 1920

Boilers made at Toronto By whom made Canadian Allis & Chalmers When made 1920

Registered Horse Power 266.46 Owners Canadian Government Merchant Marine Co Port belonging to Montreal

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Midvale St. + Ordnance Co Philadelphia U.S.A.

(Letter for record 3. S. B.) Total Heating Surface of Boilers 8565 Is forced draft fitted yes No. and Description of Boilers 3. S. E. Multitubular Working Pressure 180 Tested by hydraulic pressure to 360 Date of test July 12th

No. of Certificate 120, 121, 122 Can each boiler be worked separately yes Area of fire grate in each boiler 74.75 sq No. and Description of safety valves to each boiler Double Spring Loaded Area of each valve 9.6 sq Pressure to which they are adjusted 180 lbs

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 12" 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 to 32 Tons Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Double long. seams Treble Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 4 7/8

Lap of plates or width of butt straps 20 3/4 Per centages of strength of longitudinal joint rivets 88.9 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 - Thickness of plates crown 9/8
bottom - bottom 9/8

Description of longitudinal joint - No. of strengthening rings - Working pressure of furnace by the rules 200 Combustion chamber plates: Material O.H. Steel Thickness: Sides 3/8 Back 3/8 Top 5/8 Bottom 1 1/16 Pitch of stays to ditto: Sides 8 x 8 Back 8 1/2 x 7 3/4

Top 8 x 8 1/8 If stays are fitted with nuts or riveted heads nuts outer row Working pressure by rules 181 Material of stays O.H. Steel Area at smallest part 1.496 Area supported by each stay 6.8 Working pressure by rules 198 End plates in steam space: Material O.H. Steel Thickness 1 1/16

Pitch of stays 16 1/2 x 16 1/2 How are stays secured South Nuts Working pressure by rules 180 Material of stays O.H. Steel Area at smallest part 2.43

Area supported by each stay 2.667 Working pressure by rules 186 Material of Front plates at bottom O.H. Steel Thickness 1 1/16 Material of Lower back plate O.H. Steel Thickness 1 3/16 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 3/16 Material of tube plates O.H. Steel Thickness: Front 1 3/16 Back 3/4 Mean pitch of stays 8 x 8 3/8 Pitch across wide water spaces 14 Working pressures by rules 266 Girders to Chamber tops: Material O.H. Steel Depth and thickness of girder at centre 9 x 1 1/2 Length as per rule 2'-6 1/2 Distance apart 8 1/8 Number and pitch of Stays in each 3 @ 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 -

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 -

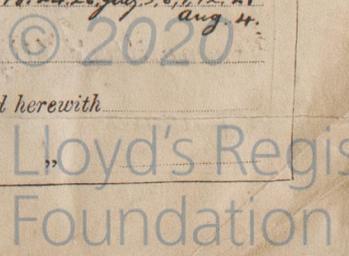
The foregoing is a correct description,
Canadian Allis Chalmers Manufacturer.

Dates of Survey while building

During progress of work in shops --	June 9, Aug. 14, Sept. 3, 26, Oct. 8, 28, Nov. 11, 20, Dec. 4, 10, 12, 19, 23, 29, 30, 31, Jan. 5, 10, 15, 16, 22, 26, 27
During erection on board vessel ---	July 2, 6, 10, 13, 18, 19, 23, 26, 28, 30, 31, 1920, 1921, Jan. 13, 17, 22, May 19, June 2, 11, 18, 24, 26, July 3, 6, 7, 12, 21, Aug. 4
Total No. of visits	69

Is the approved plan of main boiler forwarded herewith -

" " " donkey " " " -



W1258-0250

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

These boilers have been constructed under Special Survey are of good material and workmanship. They have been despatched to the Halifax Shipyards Ltd. to be fitted on board their Hull N^o 2 and will be eligible for record with date when completed with the machinery.

These boilers have been satisfactorily fitted on board, together with mountings & connections and tried under steam with satisfactory results. A hydrostatic test was also placed on the boilers when completed to 270 lbs. In my opinion they are eligible for record of LMC 2-21 with machinery.

Certificates (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	Aug 7 1920
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) #	50	:	8/12/20

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

Committee's Minute FRI APR 15 1921
 Assigned