

REPORT ON BOILERS.

No. 1469

Received at London Office

Date of writing Report *Dec 20 1919* When handed in at Local Office *1919* Port of *Montreal*

No. in Survey held at *Lachine P.Q.* Date, First Survey *Mar. 25* Last Survey *Dec 7 1919*

Reg. Book. *S.S. "CANADIAN SETTLER"* (Number of Visits *26*) Gross *3548* Tons Net *2155*

Master *H. A. Roberson* Built at *Three Rivers P.Q.* By whom built *Lidewater Shipbuilders Ltd* When built *1919*

Engines made at *Galt. Ont.* By whom made *Goldie. McCulloch Ltd.* When made *1919*

Boilers made at *Lachine P.Q.* By whom made *Dominion Bridge Co. Ltd.* When made *1919*

Registered Horse Power *226.5* Owners *Canadian Government* Port belonging to *Montreal*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Middle Steel Ordnance Co.*

(Letter for record *S.*) Total Heating Surface of Boilers *7275 sq ft* Is forced draft fitted *Yes* No. and Description of Boilers *3 single ended Scotch type* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *27-8-19-4-9-19*

No. of Certificate *64 & 65* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *52 sq ft* No. and Description of safety valves to each boiler *2 spring loaded 3 1/2" diam.* Area of each valve *9.621 sq in* Pressure to which they are adjusted *184 lbs*

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

Smallest distance between boilers or uptakes and bunkers or woodwork *12 inches* Mean dia. of boilers *13' 9 1/2"* Length *11' 6"*

Material of shell plates *S* Thickness *1 1/4"* Range of tensile strength *26-28 tons* Are the shell plates welded or flanged *No.*

Descrip. of riveting: cir. seams *D.R.* long. seams *DBS. T.R.* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8.65"*

Lap of plates or width of butt straps *19"* Per centages of strength of longitudinal joint rivets *84.4* plate *85.5* Working pressure of shell by rules *203 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *29" x 33"* No. and Description of Furnaces in each boiler *3 suspension bulb* Material *S.* Outside diameter *43 3/8"* Length of plain part *top 9' 1/6"* Thickness of plates *crown 9' 1/6"* bottom *9' 1/6"*

Description of longitudinal joint *weld.* No. of strengthening rings *Yes* Working pressure of furnace by the rules *219 lbs* Combustion chamber plates: Material *S.* Thickness: Sides *1 1/6"* Back *1 1/6"* Top *1 1/6"* Bottom *7/8"* Pitch of stays to ditto: Sides *9" x 8"* Back *8 3/4" x 8 3/4"*

Top *9" x 7 3/4"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *216 lbs* Material of stays *S.* Area at smallest part *1 1/6 sq in* Area supported by each stay *75.46 sq in* Working pressure by rules *210 lbs* End plates in steam space: Material *S.* Thickness *1 1/6"*

Pitch of stays *1 1/4" x 1 1/4"* How are stays secured *with nuts* Working pressure by rules *185 lbs* Material of stays *S.* Area at smallest part *5.23 sq in*

Area supported by each stay *289 sq in* Working pressure by rules *188 lbs* Material of front plates at bottom *S.* Thickness *3/8"* Material of lower back plate *S.* Thickness *3/8"* Greatest pitch of stays *8 3/4" x 8 3/4"* Working pressure of plate by rules *Diameter of tubes 2 3/4"*

Pitch of tubes *3 3/4" x 3 3/4"* Material of tube plates *S.* Thickness: Front *3/8"* Back *1 1/6"* Mean pitch of stays *7 1/2" x 7 1/2"* Pitch across wide outer spaces *12 1/2"* Working pressures by rules *274 lbs* Girders to Chamber tops: Material *S.* Depth and thickness of girder at centre *8 1/2" x 1 1/2"* Length as per rule *3 1/2"* Distance apart *7 3/4"* Number and pitch of Stays in each *2-9"*

Working pressure by rules *210 lbs* Steam dome: description of joint to shell *Yes* % of strength of joint *Yes*

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

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

PERHEATER. Type *Yes* Date of Approval of Plan *Yes* Tested by Hydraulic Pressure to *Yes*

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

Number of Safety Valve *Yes* Pressure to which each is adjusted *Yes* Is Easing Gear fitted *Yes*

The foregoing is a correct description,

DOMINION BRIDGE COY Limited,

J. L. Frutley

Manufacturer.

Dates During progress of *Mar. 25/46. 10.15.17.23 May 14.28. June 12. July 3.15.23.* Is the approved plan of boiler forwarded herewith *No.*

Survey work in shops - *Aug. 13. 22. 27.*

While During erection on *Sept. 20 Oct 8. 21. Nov 1. 10. 15. 21. 26. 29. 30 Dec 2. 9.* Total No. of visits *26.*

Building board vessel - - -

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

These Boilers have been constructed under special survey and in accordance with the rules and approved plans. Materials and workmanship are satisfactory. The boilers have been fitted and used on board the vessel and in our opinion are eligible to receive the second class certificate 12-19 in the Register Book of the Society.

Survey fee ... £ *72.50* When applied for, *Sept. 26 1919.*

Travelling Expenses (if any) £ *2.40* When received, *Sept. 30 1919.*

Committee's Minute

Signed

FRI. JAN. 16. 1920

TUE. APR. 27. 1920

FRI. JUL. 2. 1920

TUE. SEP. 27. 1921

007342-007351-0283

Lloyd's Register Foundation