

# REPORT ON BOILERS.

No. 1931

Date of writing Report *Nov 28<sup>th</sup> 1921* When handed in at Local Office *Nov 21<sup>st</sup> 1921* Port of *Montreal*

No. in Survey held at *Three Rivers P.Q.* Date, First Survey *Sept 17. 1920* Last Survey *Nov 25<sup>th</sup> 1921*

Reg. Book. on the *Halifax Shipyards Ltd Hull No 3, S.S. Canadian Cruiser* (Number of Visits *33*) Gross *7177.64* Tons Net *4413.44*

Master Built at *Halifax NS* By whom built *Halifax Shipyards Ltd.* When built *1921*

Engines made at *Three Rivers P.Q.* By whom made *Tidewater Shipbuilders Ltd* When made *1920*

Boilers made at " " " By whom made " " " When made *1920*

Registered Horse Power *326* Owners *Canadian Government Merchant Marine* Port belonging to *Montreal*

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Worth Ltd Co. DEL. USA.*

(Letter for record *S.*) Total Heating Surface of Boilers *10848 sq ft* Is forced draft fitted *Yes* No. and Description of Boilers *4. Scotch Marine type* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *25-5-21*

No. of Certificate *80* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *66.12 sq ft* No. and Description of safety valves to each boiler *2-3 1/2" spring loaded.* Area of each valve *10.32 sq in* 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 *30"* Mean dia. of boilers *15'6"* Length *11'6"*

Material of shell plates *S* Thickness *1 3/8"* Range of tensile strength *26-30 TONS* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *D.* long. seams *TR. DBS.* Diameter of rivet holes in long. seams *1 3/8"* Pitch of rivets *9 3/16"*

Lap of plates or width of butt straps *19 7/8"* Per centages of strength of longitudinal joint rivets *85.0* Working pressure of shell by rules *187.5 lb* plate *87.35*

Size of manhole in shell *16"x12"* Size of compensating ring *37 1/2"x33"* No. and Description of Furnaces in each boiler *3-Deighton* Material *S.* Outside diameter *4'2 1/4"* Length of plain part *4 1/2"* Thickness of plates crown *2 1/32"* bottom *1/32"*

Description of longitudinal joint *Weld* No. of strengthening rings Working pressure of furnace by the rules *202* Combustion chamber plates: Material *S* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *15/16"* Pitch of stays to ditto: Sides *9"x7 1/2"* Back *8"x8 1/2"*

If stays are fitted with nuts or riveted heads *Nuts.* Working pressure by rules *197* Material of stays *S* Area at smallest part *1.76 sq in* Area supported by each stay *67.5 sq in* Working pressure by rules *209* End plates in steam space: Material *S* Thickness *1 1/8"*

Pitch of stays *15"x18"* How are stays secured *4/4" nuts* Working pressure by rules *214* Material of stays *S.* Area at smallest part *5.27 sq in*

Area supported by each stay *270 sq in* Working pressure by rules *204* Material of Front plates at bottom *S* Thickness *1 3/16"* Material of Lower back plate *S.* Thickness *1 3/16"* Greatest pitch of stays *13 1/2"x8 1/2"* Working pressure of plate by rules *215* Diameter of tubes *2 1/2"*

Pitch of tubes *3 3/4"x3 3/8"* Material of tube plates *S* Thickness: Front *1 9/16"* Back *3/4"* Mean pitch of stays *11 5/8"x7 1/2"* Pitch across wide water spaces *13 5/8"* Working pressures by rules *181*

Girders to Chamber tops: Material *S* Depth and thickness of girder at centre *10"x3/4" dbl* Length as per rule *30 5/8"* Distance apart *9"* Number and pitch of Stays in each *3-7 1/2"*

Working pressure by rules *194.4* 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 such is adjusted

**TIDEWATER SHIPBUILDERS LIMITED,**  
THREE RIVERS, QUE.  
The foregoing is a correct description,  
*Donckerean* Manufacturer.  
Manager.

# RETAIN

During progress of 1920, Sept 17, Oct 26, Nov 13, Dec 14, Jan 21, Feb 8, 14, 24, Mar 3, 11, 26 Is the approved plan of boiler forwarded herewith *No*

work in shops - - - *Apr 11-27, May 13-25, Jun 6, 12, July 12*

During erection on board vessel - - - *Aug 5-8-11-15-18-23-31, Sept 9-19-23-29-30, Nov 15-16-23-24* Total No. of visits *33*

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

*These boilers have been constructed under special survey and in accordance with the approved plans. The workmanship and materials are satisfactory. The boilers have been installed on board together with mountings and connections, and afterwards tried under steam with satisfactory results. A hydraulic test was also put on the boilers when completed to 320 lbs. In my opinion, they are eligible for record of LMC 11-21*

Survey Fee ... £ *220.50* When applied for *July 18. 1921*

Travelling Expenses (if any) £ *7.350* When received *26/8/21*

Committee's Minute Assigned

TUE. 3 JAN. 1922

*N. J. Alderson* Engineer Surveyor to Lloyd's Register of Shipping.

*J. Moon* 2021

Lloyd's Register Foundation

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