

Rpt. 5a.

REPORT ON BOILERS.

No. 1309

WED. FEB. 2 1921

Received at London Office

Date of writing Report *July 8th 1921* When handed in at Local Office *July 11th 1921* Port of *Halifax, N.S.*
 No. in Survey held at *New Glasgow N.S. & Montreal P.Q.* Date, First Survey *Aug 17th 1920.* Last Survey *Dec 14th 1920*
 Reg. Book. on the *Steel single screw steamer "Canadian Sapper"* (Number of Visits) (Gross *1762.68* Tons) (Net *1044.24*)
 Master *M^r Ingor Fraser* Built at *New Glasgow, N.S.* By whom built *Nova Scotia Steel & Coal Co. Ltd.* When built *1920*
 Engines made at *Sherbrooke P.Q.* By whom made *Canadian Ingersoll Rand Ltd* When made *1920*
Partly at Montreal Que *Dominion Bridge Co Ltd*
 Boilers made at *New Glasgow N.S.* By whom made *Nova Scotia Steel and Coal Co Ltd.* When made *1920*
 Registered Horse Power Owners *Canadian Government Merchant Marine Ltd* Port belonging to *Montreal.*

Converted to F.D. 1929

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel *Lukens Steel Co. Coatsville Pa.*

Letter for record) Total Heating Surface of Boilers *2900* ^{sq ft} forced draft fitted *No.* No. and Description of Boilers *2 Scotch Multitubular, Marine Working Pressure 185 lb.* Tested by hydraulic pressure to *330 lb.* Date of test *Nov. 9-26, 1920*
 Nos of Certificates *13 & 14.* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *42* ^{sq ft} No. and Description of safety valves to each boiler *2 Spring loaded* Area of each valve *7.06* Pressure to which they are adjusted *185 lb.*
 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 *12'-9"* Length *10'-9"*
 Material of shell plates *Steel* Thickness *1 3/16"* Range of tensile strength *28-32* Are the shell plates welded or flanged *Flanged*
 Descrip. of riveting: cir. seams *D.R. Lap* longitudinal seams *T.R.D. Butt* Diameter of rivet holes in long. seams *1 5/16"* Pitch of rivets *8 3/4"*
 Top of plates or width of butt straps *19 1/4"* Per centages of strength of longitudinal joint rivets *87.5* Working pressure of shell by plate *85*
 Rules *208* Size of manhole in shell *12 x 16"* Size of compensating ring *32 x 36"* No. and Description of Furnaces in each boiler *2 Corrugated* Material *Steel* Outside diameter *48 7/8"* Length of plain part ^{top} *7 1/2"* Thickness of plates ^{bottom} *5/8"*
 Description of longitudinal joint No. of strengthening rings Working pressure of furnace by the rules *205 lb.* Combustion chamber plates: Material *Steel* Thickness: Sides *9/16"* Back *9/16"* Top *9/16"* Bottom *1"* Pitch of stays to ditto: Sides *6 x 9"* Back *7 1/16 x 8"*
 Top *7/2 x 7/2"* If stays are fitted with nuts or riveted heads *Nuts inside* Working pressure by rules *193* Material of stays *Steel* Area at smallest part *1.299* Area supported by each stay *56.48* Working pressure by rules *240* End plates in steam space: Material *Steel* Thickness *1"*
 Pitch of stays *14 x 15"* How are stays secured *Screwed & nutted* Working pressure by rules *208* Material of stays *Steel* Area at smallest part *3.98*
 Area supported by each stay *210* Working pressure by rules *197* Material of Front plates at bottom *Steel* Thickness *7/8"* Material of Lower back plate *Steel* Thickness *13/16"* Greatest pitch of stays *13 1/4"* Working pressure of plate by rules *260* Diameter of tubes *3"*
 Pitch of tubes *4 x 4 5/8"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *7/8"* Mean pitch of stays *8.6"* Pitch across wide water spaces *14 1/2"* Working pressures by rules *240* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9 x 1 1/2"* Length as per rule *33"* Distance apart *7 1/2"* Number and pitch of Stays in each *3-7 1/2"*
 Working pressure by rules *250* 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

The foregoing is a correct description, *Nova Scotia Steel & Coal Co. Ltd.* Manufacturer.

Dates During progress of *Aug. 17-20-24-30, Sept. 6-13-14-22, Oct. 2-15-29.* Is the approved plan of boiler forwarded herewith
 Survey while while *Nov. 6-8-9.*
 Building *Nov. 11-15-24-26-30 Dec. 4-14.* Total No. of visits *21*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These boilers have been constructed under special survey, the materials and workmanship are good, and in my opinion eligible for record + L.M.C. 12-20.

Survey Fee ... *45.00* When applied for *July 17 1921*
 Travelling Expenses (if any) *45.00* When received *24/1/21*
 J. S. MacArthur and J. O. T. Jones
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute
 Assigned
 FRI. 11 FEB. 1921
 Lloyd's Register Foundation
 014815-014826-0062