

REPORT ON BOILERS.

No. 5751

30 DEC 1942

Received at London Office

Date of writing Report Oct: 28th 1942 When handed in at London Office 19 Port of MONTREAL P.Q.

No. in Survey held at MONTREAL P.Q. Date, First Survey 11-5-42 Last Survey 21st, Oct: 1942

Reg. Book. Single Screw Steamer "FORT CATARAQUI" (Number of Visits 27) Tons {Gross 7130.35
Net 4242.61

Built at Lauzon, Levis P.Q. By whom built Davie Shipbuilding & Repairing Co. Yard No. 538 When built 1942

Engines made at Lachine P.Q. By whom made Dominion Engineering Works Engine No. 44 When made 1942

Boilers made at Montreal P.Q. By whom made Canadian Vickers Co. Ltd. Boiler No. P6380
St6382 When made 1942

Nominal Horse Power 509 Owners Ministry of War Transport Port belonging to Montreal

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record S)

Total Heating Surface of Boilers 2380 square feet ^{+3 = 7140} Is forced draught fitted Yes Coal or Oil fired Coal

No. and Description of Boilers Three single ended Multitubular Working Pressure 220 lbs. per sq. in.

Tested by hydraulic pressure to B.C. Test Date of test 25-7-42 No. of Certificate P6380 Can each boiler be worked separately Yes

Area of Firegrate in each boiler 51 sq. ft. No. and Description of Safety valves to each boiler One double spring safety valve

Area of each set of valves per boiler {per Rule 8.87 sq. ins. ^{12.67 for ordinary valves} Pressure to which they are adjusted 220 lbs Are they fitted with easing gear Yes
as fitted 7.95 " "Cock burns high lift"

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 6' - 0" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 2' - 0" Is the bottom of the boiler insulated Yes

Largest internal diameter of boilers 14' - 6-3/16" Length 11' - 9" Shell plates: Material O.H. Steel Tensile strength 29/33 tons D.R.

Thickness 1-13/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end 4-3/16"
inter. 10-1/16"

Long. seams T.R. zig-zag Diameter of rivet holes in {circ. seams 1 1/2" Pitch of rivets {
long. seams 1 1/2"

Percentage of strength of circ. end seams {plate 64.0 Percentage of strength of circ. intermediate seam {plate -
rivets 47.0 rivets -

Percentage of strength of longitudinal joint {plate 85.6
rivets 92.9
combined 88.7

Thickness of butt straps {outer 1-3/32" No. and Description of Furnaces in each Boiler Three Morrison corrugated type
inner 1-7/32"

Material O.H. Steel Tensile strength B.C. Test Smallest outside diameter 41"

Length of plain part {top - Thickness of plates {circ. seams 21/32" Description of longitudinal joint Lapweld
bottom -

Dimensions of stiffening rings on furnace or c.c. bottom -

End plates in steam space: Material O.H. Steel Tensile strength B.C. Test Thickness 1-7/16" Pitch of stays 21"x21"

How are stays secured inside and outside nuts

Tube plates: Material {front O.H. Steel Tensile strength {B.C. Tests Thickness {31/32"
back O.H. Steel 13/16"

Mean pitch of stay tubes in nests 10-5/8"x8 1/2"-9.4375 Pitch across wide water spaces 14 1/2"

Girders to combustion chamber tops: Material O.H. Steel Tensile strength 29/33 tons B.C. Test Depth and Thickness of girder

at centre 2 at 10 1/2" x 7/8" Length as per Rule 34" Distance apart 11" No. and pitch of stays

in each 3 at 7" x 5/8" Combustion chamber plates: Material O.H. Steel

Tensile strength B.C. Tests Thickness: Sides 25/32" Back 23/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 10-3/16"x9" Back 9" x 9" Top 11" x 7-5/8" Are stays fitted with nuts or riveted over nutted

Front plate at bottom: Material O.H. Steel Tensile strength B.C. tests

Thickness 31/32" Lower back plate: Material O.H. Steel Tensile strength B.C. Tests Thickness 29/32"

Pitch of stays at wide water space 11 1/2" x 9" Are stays fitted with nuts or riveted over Nutted

Main stays: Material O.H. Steel Tensile strength B.C. Tests

Diameter {At body of stay 3 1/2" No. of threads per inch 6
or
Over threads -

Screw stays: Material O.H. Steel Tensile strength B.C. Tests

Diameter {At turned off part - No. of threads per inch 9
or
Over threads 1 1/2"



Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads. 2"

No. of threads per inch 9

Tubes: Material O.H. Steel External diameter { Plain 3" Stay 3" Thickness { 8 S.W.G. 5/16" & 3/8" No. of threads per inch 9

Pitch of tubes 10-5/8" x 8 1/4" Manhole compensation: Size of opening in shell plate None Section of compensating ring - No. of rivets and diameter of rivet holes -

Outer row rivet pitch at ends -- Depth of flange if manhole flanged 4 1/2" in hack end Steam Dome: Material None

Tensile strength - Thickness of shell - Description of longitudinal joint -

Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint { Plate - Rivets -

Internal diameter - Thickness of crown - No. and diameter of stays - Inner radius of crown -

How connected to shell - Size of doubling plate under dome - Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell -

Type of Superheater Smoke tube Manufacturers of { Tubes National Tube Co. Penna. Steel forgings The Superheater Co. Sherbrooke P.Q. Steel castings " " " " "

Number of elements 58 Material of tubes S.D. Steel Internal diameter and thickness of tubes 69" & .095"

Material of headers O.H. Steel Tensile strength B.C. tests Thickness 1-1/8" min. Can the superheater be shut off and the boiler be worked separately Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes

Area of each safety valve 1.76 Sq. Ins. Are the safety valves fitted with easing gear -

Pressure to which the safety valves are adjusted 220 lbs. per sq. ins. Hydraulic test pressure: tubes B.C. tests forgings and castings B.C. tests and after assembly in place 400 lbs. per sq. ins. Are drain cocks or valves fitted to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description, Manufacturer.

Dates of Survey { During progress of work in shops - - May 1942. 11, 19, 27, 29. June 3, 11, 18, 26, July 1, 3, 10, 22, 24, Aug: 6, Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Total No. of visits 27

{ During erection on board vessel - - 12, 21. Sept: 2, 5, 10, 16(2), 22, 29. Oct: 3, 8, 16, 21.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. S.S. "FORT TADOUSSAC" S.S. "PRINCE ALBERT PARK"

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

These boilers have been built under British Corporation Survey.

They have been properly installed, and the safety valves adjusted under steam at 220 lbs. per sq. ins., and washers noted, and tested for accumulation.

Survey Fee ... \$ 150⁰⁰ : : When applied for, Nov. 16 1942

Travelling Expenses (if any) £ : : When received, 19

D. Jalkett
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 12 JAN 1943

Assigned See Mtl. 26 5751

