

REPORT ON BOILERS.

incl. Rpt.
No. 6664

Received at London Office 11 OCT 1945

Date of writing Report 10th. Sept. 45 12th. Sept. 45
10th April 19 45 When handed in at Local Office March 24th 45. Port of MONTREAL, Que. & QUEBEC, QUE.

Survey held at MONTREAL & QUEBEC, P.Q. Date, First Survey 30th. March 45 29th. August 1945
31st Jan. 1945. Last Survey 14th March 19 45.
& Continuous
(Number of Visits 13)

on the STEEL SINGLE SCREW STEAMER "WESTDALE PARK" Tons { Gross 2967.24
Net 1640.77

Built at Quebec, P.Q. By whom built MORTON ENGINEERING & YARD No. 63 When built 1945
DRY DOCK CO. LTD.

Engines made at Three Rivers By whom made CANADA IRON FOUNDRIES LTD. Engine No. 2040 When made 1945

Boilers made at LACHINE, P.Q. By whom made DOMINION BRIDGE COMPANY LIMITED Boiler No. P 5 When made 1945.
B 1509

Nominal Horse Power 268.81 Owners CANADIAN GOVERNMENT Port belonging to MONTREAL
(MGRS. PARK S.S. CO. LTD.)

MULTITUBULAR BOILERS—MAIN, ~~STEAMERS~~ ~~OR~~ ~~DONKEY~~

Manufacturers of Steel Bethlehem, Steel Co. of Canada, Lukens, etc. (Letter for Record S)

Total Heating Surface of Boilers 1927 sq. ft. (2) 3854 Is forced draught fitted Yes Coal or Oil fired Coal

No. and Description of Boilers 1 SINGLE ENDED MULTITUBULAR Working Pressure 200 lbs/sq in.

Tested by hydraulic pressure to 350 lbs/sq in. Date of test 14th March 1945 No. of Certificate 6782 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 43.25 sq. ft. and Description of safety valves to each boiler One twin Cockburn Improved High Lift 2 1/4" dia. each.

Area of each set of valves per boiler { per Rule 6.72 sq. in. for 14 1/2
as fitted 7.95 sq. in. Pressure to which they are adjusted 200 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 and bunkers 2'-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 dia. of boilers 13'6" Length 11'6" Shell plates: Material O.H. Steel Tensile strength 29-33 tons

Thickness 1 9/32" Are the shell plates welded or flanged Welded Description of riveting: circ. seams { end
inter welded

Long. seams welded Diameter of rivet holes in { circ. seams -
long. seams - Pitch of rivets { -

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

Percentage of strength of longitudinal joint { plate -
rivets - Working pressure of shell by Rules 204.3 lbs/sq. in.

Thickness of butt straps { outer None
inner " No. and Description of Furnaces in each Boiler 3 Morrison Corrugated

Material O.H. Steel Tensile strength 26-30 tons Smallest outside diameter 38 1/2"

Length of plain part { top -
bottom - Thickness of plates { crown 9/16"
bottom - Description of longitudinal joint LAP weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 212 lbs./sq. in.

End plates in steam space: Material O.H. Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 18 1/4" x 17 3/4"

How are stays secured Inside and outside nuts Working pressure by Rules 202.4 lbs/sq. in.

Tube plates: Material { front O.H. Steel Tensile strength { 26-30 tons
back O.H. Steel Thickness { 29/32"
13/16"

Lean pitch of stay tubes in nests 8 3/8" x 10 5/16" Pitch across wide water spaces 14" Working Pressure { front 245 lbs/sq. in
back 223 lbs/sq. in.

Orders to combustion chamber tops: Material O.H. Steel Tensile strength 28-32 tons Depth and thickness of girder

Centre 2 @ 7 3/4" x 7/8" Length as per Rule 33 15/32" Distance apart 8" No. and pitch of stays

Each 2 @ 10 3/4" x 8" Working pressure by Rules 206.2 lbs/sq. in. Combustion chamber plates: Material O.H. Steel

Tensile strength 26-30 tons Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 23/32" welded washers

Pitch of stays to ditto: Sides 11" x 7 3/4" Back 8 3/8" x 10 1/2" Top 10 3/8" x 8" Are stays fitted with nuts or riveted over welded over.

Working pressure by Rules 202 lbs/sq. in. Front plate at bottom: Material O.H. Steel Tensile strength 26-30 tons

Thickness 29/32" Lower back plate: Material O.H. Steel Tensile strength 26-30 tons Thickness 29/32"

Pitch of stays at wide water space 14 3/8" x 10 1/2" Are stays fitted with nuts or riveted over welded washers & welded over

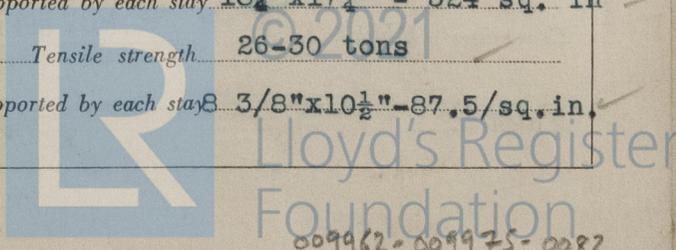
Working pressure 214 lbs/sq. in. Main stays: Material O.H. Steel Tensile strength 28-32 tons

Diameter { At body of stay 3"
or - No. of threads per inch 6 Area supported by each stay 18 1/4" x 17 3/4" - 324 sq. in

Working pressure by Rules 207 lbs/sq. in. Screw stays: Material O.H. Steel Tensile strength 26-30 tons

Diameter { At turned off part,
or - No. of threads per inch 9" Area supported by each stay 8 3/8" x 10 1/2" - 87.5/sq. in.

Over threads 2", 1 1/2"



Working pressure by Rules 207 lbs/sq. in. are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 2" or Over threads -

No. of threads per inch 9 Area supported by each stay 11 3/8" x 10 1/2" = 119.5 sq. in. Working pressure by Rules 207 lbs/sq. in.

Tubes: Material Steel External diameter { Plain 3 Stay 3 Thickness { 8 LSG 5/16" & 1/4" No. of threads per inch 9

Pitch of tubes 4 1/8" x 4 3/16" Working pressure by Rules 250 lbs/sq. in. Manhole compensation: Size of opening shell plate - Section of compensating ring - No. of rivets and diameter of rivet holes -

Outer row rivet pitch at ends - Depth of flange if manhole flanged - Steam Dome: Material -

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 - Working pressure by Rules - Thickness of crown - No. and diameter stays - Inner radius of crown - Working pressure by Rules -

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 COMPANY Steel forgings Penn. Forge Corp. Tacony, Pa. Steel castings -

Number of elements 48 Material of tubes O.H. Seamless Internal diameter and thickness of tubes .69 & .095

Material of headers O.H. Forged Tensile strength 28-33 tons Thickness 1 1/8" Can the superheater be shut off 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 No Working pressure as Rules -- Pressure to which the safety valves are adjusted 200 Lbs. sq. ins. Hydraulic test pressure tubes 2500 lbs/sq. in. forgings and castings 550 lbs/sq. in. and after assembly in place 550 Lbs. sq. ins. Are drain cocks 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,
DOMINION BRIDGE CO. LIMITED Manufacturer
per A. J. Mall

Dates of Survey while building { During progress of work in shops - - } Jan. 31st. Feb. 2, 8, 14, 19, 22, 27, and 28th. Are the approved plans of boiler and superheater forwarded herewith (if not state date of approval) -
 { During erection on board vessel - - } March 2, 6, 8, 12, and 14th. 30th. March 1945 - 29th. August 1945 Total No. of visits Continuous attendance

Is this Boiler a duplicate of a previous case YES If so, state Vessel's name and Report No. S.S. "Rockwood Park" Montreal Rpt. 5740

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under special survey and in accordance with approved plans. The shell longitudinal and circumferential seams are welded by the Union Melt Process and have been tested and X-rayed in accordance with the Rules for Class 1 Pressure Vessels. The longitudinal seams of the front and back end plates are welded by the Union Melt Process. The boiler was tested hydrostatically at 350 lbs per square inch pressure and found tight.

This BOILER has been satisfactorily fitted aboard this Vessel and examined under Steam. The Safety Valves have been adjusted under steam, tested for accumulation and thickness of washers noted.

This Vessel is eligible in my opinion for record of \star L.M.C. 8,45.

Survey Fee 162⁵⁰ : When applied for 22nd Sept. 1945
 Travelling Expenses (if any) Included } When received 19
in Hull Rpt.

W. J. Redden
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI 2 NOV 1945
 Assigned - See F.E. machy. rph.

