

mal Rpt.
No. 6591

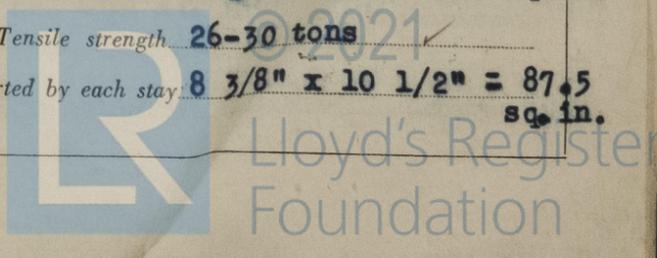
REPORT ON BOILERS.

Received at London Office 20 AUG 1945

5a. June 20th. 45 June 23rd. 1945
 of writing Report Dec. 7th, 1944 When handed in at Local Office Nov. 13th, 1944 Port of Montreal, Que. & Quebec, Que.
 13th. October 1944 15th. June 1945
 opening in Survey held at Montreal, Que. & Quebec, Que. Date, First Survey Sept. 13th, 1944 Last Survey Oct. 11th, 1944.
 on the Steel Single Screw Steamer "ROCKLAND PARK" (Number of Visits 9) (Continuous attendance) Gross 2905.39 Tons Net 1657.16
 Built at Quebec, P.Q. By whom built Morton Engineering & Yard No. 61 When built 1945 Dry Dock Co. Ltd.
 Engines made at Three Rivers, P.Q. By whom made Canada Iron Foundries Ltd. Engine No. 2031 When made 1944
 Boilers made at LACHINE, QUE. By whom made DOMINION BRIDGE COMPANY LIMITED Boiler No. B1421 When made 1944 S 6
 Indicated Horse Power 268.81 Owners Canadian Government Port belonging to Montreal (Mgrs. Park S.S. Co. Ltd.)

MULTITUBULAR BOILERS—MAIN, ~~XXXXXXXXXXXXXXXXXXXX~~

Manufacturers of Steel Bethlehem, Steel Co. of Canada, Lukens, etc. (Letter for Record S ✓)
 Total Heating Surface of Boilers 1927 sq. ft. (each) ✓ Is forced draught fitted Yes Coal or Oil fired Coal ✓
 Name 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 11.10.44 No. of Certificate 4579 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler 43.25 sq. ft. No. and Description of safety valves to each boiler One Twin Cockburn Improved High Lift 2 1/2" dia. each
 Area of each set of valves per boiler { per Rule 6.72 sq. in. for 144 lbs. with 8 ft Pressure to which they are adjusted 200 lbs. Are they fitted with easing gear Yes ✓
 as fitted 7.95 sq. in.
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler --
 Smallest distance between boilers ~~XXXXXXXXXX~~ and bunkers ~~XXXXXXXXXX~~ 26" Is oil fuel carried in the double bottom under boilers NO
 Smallest distance between shell of boiler and tank top plating 23 1/2" 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
 g. seams Welded Diameter of rivet holes in { circ. seams - Pitch of rivets { - long. seams -
 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.
 combined -
 Thickness of butt straps { outer None inner None 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 - Thickness of plates { crown 9/16" Description of longitudinal joint Lap Weld
 bottom - Working pressure of furnace by Rules 212 lbs./sq.in.
 Dimensions of stiffening rings on furnace or c.c. bottom -
 Deck plates in steam space: Material O.H. Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 18 1/2" x 17 1/2"
 How are stays secured Inside and Outside Nuts Working pressure by Rules 202.4 lbs./sq.in.
 Deck plates: Material { front O.H. Steel Tensile strength { 26-30 tons Thickness { 29/32"
 back O.H. Steel { 26-30 tons { 13/16"
 Can 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 & Welded Over
 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
 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" No. of threads per inch 6 Area supported by each stay 18 1/2" x 17 1/2" = 324 sq.in.
 Over threads -
 Working pressure by Rules 207 lbs./sq.in. Screw stays: Material O.H. Steel Tensile strength 26-30 tons
 Diameter { At turned off part - 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 ISG 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 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., Tacoma, 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 **--** Working pressure as Rules **--** Pressure to which the safety valves are adjusted **200 Lbs. Sq. in** Hydraulic test pressure **2500 lbs./sq. in.** forgings ~~2000 lbs./sq. in.~~ **550 lbs./sq. in.** and after assembly in place **550 Lbs. Sq. in.** Are drain cock 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 Manufactured by **pu. H. Hall**

Dates of Survey { During progress of work in shops **Sept. 13, 18, 20, 25, 27** Oct. 2, 4, 5, 11 } Are the approved plans of boiler and superheater forwarded herewith (if not state date of approval.)

while building { During erection on board vessel **18th. October 1944 to 15th. June 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" Mtl. Rpt. No.**

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 sq. in. pressure and found tight.

The above mentioned BOILER has been satisfactorily fitted on board this Vessel, and examined under Steam. The Safety Valves have been adjusted under Steam, tested for accumulation and thickness of washers noted.

In My opinion this Vessel is eligible for record * L.M.C. 6,45.

Survey Fee **162** (with **50** in Hull Rpt.) Travelling Expenses (if any) **Included** When applied for **30th July 1945** When received **19**

A. H. Stanley + R. G. Reddick
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **AM. 31 AUG 1945**

Assigned **S. F. E. Macky. spk.**

