

REPORT ON BOILERS.

No. 936-7-8

Int. Rpt. 5922

20 SEP 1943

Received at London Office

Aug. 7th. 43
 1943
 MONTREAL P.Q.
 TORONTO, CANADA
 Date, First Survey Dec. 16th/42
 Feb. 1st
 Last Survey Aug. 5th 43
 March 15th 1943
 (Number of Visits) 27 & 39
 Gross 7137.64
 Net 4144.48
 on the 10,000-ton Cargo Vessel S. S. "CHIPPEWA PARK"
 Lauzon, Levis, Que By whom built Davie Shipbuilding & Repairing Co. Ltd. Yard No. 546 When built 1943
 Lachine P.Q. By whom made Dominion Engineering Works Ltd. Engine No. 94 When made 1943
 Toronto, Ont. By whom made John Inglis Co. Ltd. Boiler No. 10-4413 When made 1943
 Park Steamship Co. Ltd. 11-4414
 Owners Wartime Merchant Shipping Ltd. Port belonging to Montreal P.Q.

LTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Heads & CC's—Steel Co. of Canada. Shell—Worth Steel & Bethlehem Steel. (Letter for Record)

Heating Surface of Boilers 7140 sq. ft. (2380 each) Is forced draught fitted Yes Coal or Oil fired Coal

Description of Boilers Three 14'-9" ext. dia. x 11'-9" long—Scotch Marine Working Pressure 220

by hydraulic pressure to 380 lbs. Date of test 27.2.43 No. of Certificate St. 937 Can each boiler be worked separately Yes

of Firegrate in each boiler 45 sq. ft. No. and Description of Safety valves to each boiler One, Cockburn Morrison Twin Valve High Lift.

of each set of valves per boiler { per Rule 6.33 sq. in. 7.47 sq. in. Pressure to which they are adjusted 220 lbs. Are they fitted with easing gear Yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Distance between boilers or uptakes and bunkers or woodwork 65'-0" Is oil fuel carried in the double bottom under boilers No

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

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

Are the shell plates welded or flanged No. Description of riveting: circ. seams { end double riveted

seams Triple Riveted Butt Diameter of rivet holes in { circ. seams 1 1/2" Pitch of rivets { 4.275"

Percentage of strength of circ. intermediate seam { plate 85 rivets 46.8

Working pressure of shell by Rules 221.2# per Sq. In.

stage of strength of longitudinal joint { plate 85 rivets 93.4 combined 88.68

No. and Description of Furnaces in each Boiler Three, Morrison 3'-4 1/4" dia x 7'-11 1/16"

Material O. H. Steel Tensile strength 26 - 30 tons Smallest outside diameter 3'-5 9/16"

Thickness of plates { crown 21/32" Description of longitudinal joint Welded and rolled.

plates in steam space: Material O. H. Steel Tensile strength 26 - 30 tons Thickness 1 7/16" Pitch of stays 21" x 21"

are stays secured Nuts and washers inside and outside, Working pressure by Rules 221 lbs. per sq. in.

plates: Material { front O. H. Steel Tensile strength { 26 - 30 tons Thickness { 31/32"

pitch of stay tubes in nests 9.8" Pitch across wide water spaces 14 1/2" x 8 1/4" Working pressure by Rules Front 232# Back 247#

ers to combustion chamber tops: Material O.H. Steel Tensile strength 26 - 30 tons Depth and Thickness of girder

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

Working pressure by Rules - 229.3# Combustion chamber plates: Material O. H. Steel

le strength 26 - 30 tons Thickness: Sides 25/32" Back 23/32" Top 25/32" Bottom 25/32"

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

Working pressure by Rules - 224 lbs.

plate at bottom: Material O. H. Steel Tensile strength 26 - 30 tons

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

of stays at wide water space 14 1/2" x 9" Are stays fitted with nuts or riveted over Fitted with nuts.

stays: Material O. H. Steel Tensile strength 28 - 32 tons

At body of stay, 3 3/4" No. of threads per inch 6. Area supported by each stay 441 sq. in.

Over threads 3 3/4" Working pressure by Rules 244 lbs.

stays: Material O. H. Steel Tensile strength 26 - 30 tons

At turned off part, Back 81 sq. in.

Over threads Back 1 3/4" Sides 1 7/8" No. of threads per inch 9. Area supported by each stay Sides 91.68 sq. in.

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. Area supported by each stay 75 sq. in. Working pressure by Rules 232 lbs. Tubes: Material O. H. Steel External diameter { Plain 3" Thickness { No. 8 LSG (.160) 3/8" x 5/16" No. of threads per inch 9 Rpt. Pitch of tubes 4 1/4" x 4 1/8" Working pressure by Rules 231 lbs. Manhole compensation: Size of open Back-head 12" x 16" Section of compensating ring 1 1/2" x 1/2" No. of rivets and diameter of rivet holes Outer row rivet pitch at ends Depth of flange if manhole flanged 3 3/4" 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 Thickness of crown No. and diameter stays Inner radius of crown 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 Made by others Manufacturers of { Tubes National Tube Co. Penna. Steel forgings The Superheater Co., Sherbrooke Steel castings " " " " Internal diameter and thickness of tubes Number of elements Material of tubes Tensile strength Thickness Can the superheater be shut off the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler 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. in. Hydraulic test pressure tubes forgings and castings and after assembly in place Are drain 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,

The John Inglis Company Limited Manufactured by
Dates of Survey { During progress of work in shops Feb. 1, 3, 6, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 22, 23, 25, 26, 27 Mar. 2, 3, 5, 6, 8, 10, 11, 12, 15. Are the approved plans of boiler and superheater forwarded herewith 29 Apr. 1942
while building { During erection on board vessel 1942-Dec. 16, 24, 1943-Jan. 7, 13, 18, 27 Feb. 4, 10, 16, 19, 26 Mar. 3, 9, 13
Total No. of visits 27 All in shop & 39 = 66
Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Inglis. Scotch Marine (N.E.) 29.4.42. N.Y.

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

NOTE: - All combustion chambers had electric welded seams as plan 168-66 approved N.Y. 29.4.42 and boiler heads were formed from three plates welded by Union-melt machine as approved New York J.S.H. July 13th, 1942, Drawings 179-31 and 179-34. The boilers were built under the Special Survey of the Society's Surveyors to the Rules and requirements and in accordance with the approved plan. The materials were made at an approved works and were satisfactorily tested by Society's Surveyors. The workmanship was good and in my opinion the boilers are eligible in the Society when they have been satisfactorily installed, seen under steam and their safety valves adjusted.

The Boilers were tested to a hydrostatic pressure of 380 lbs. and were approved and stamped

Boiler #9 - 4412	Boiler #10 - 4413	Boiler #11 - 4414
936	937	938
LLOYDS	LLOYDS	LLOYDS
T.P. 380	T.P. 380	T.P. 380
W.P. 220	W.P. 220	W.P. 220
J.B.F. 27.2.43	J.B.F. 12.3.43	J.B.F. 15.3.43

Survey Fee ... \$ 150.00 : When applied for, Apr. 20 19 43
Travelling Expenses (if any) \$ 10.00 : When received, 19

Committee's Minute FEB. 1 OCT 1943

Assigned See minute on J.B. Rpt.

Jas B Lattus & D. Galt
Engineer Surveyor to Lloyd's Register of Shipping



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Foundation