

REPORT ON BOILERS.

No. 936-7-8

Incl. Rpt. 5922

20 SEP 1943

Received at London Office

Reporting Report Aug. 7th. 43 Aug. 10th. 43
 When handed in at London Office April 8 1943
 Port of MONTREAL P.Q. CANADA
 Survey held at TORONTO, CANADA Date, First Survey Dec. 16th/42 Last Survey Aug. 5th 43
Feb. 1st March 15th 1943
 (Number of Visits) 27 & 39 Tons Gross 7137.64
Net 4144.48
 on the 10,000-ton Cargo Vessel S. S. "CHIPPEWA PARK"
 By whom built Davie Shipbuilding & Repairing Co. Ltd. Yard No. 546 When built 1943
 By whom made Lachine P.Q. Dominion Engineering Works Ltd. Engine No. 94 When made 1943
9-4412
 By whom made Toronto, Ont. John Inglis Co. Ltd. Boiler No. 10-4413 When made 1943
11-4414
 Owners Wartime Merchant Shipping Ltd. Port belonging to Montreal P.Q.

TITUBULAR 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 St. 2.3.43 No. of Certificate St. 937 Can each boiler be worked separately Yes
C 15.3.43 C 938

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. Pressure to which they are adjusted 220 lbs. Are they fitted with easing gear Yes
 { as fitted 7.95 sq. in.

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
1 13/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams { end double riveted
 { inter. 4.275"

seams Triple Riveted Butt Diameter of rivet holes in { circ. seams 1 1/2" Pitch of rivets { 10 1/16"
 { long. seams 1 1/2"

stage of strength of circ. end seams { plate 85 Percentage of strength of circ. intermediate seam { plate 85
 { rivets 46.8 { rivets 93.4

stage of strength of longitudinal joint { plate 85 Working pressure of shell by Rules 221.2# per Sq. In.
 { rivets 93.4 { combined 88.68

thickness of butt straps { outer 1 3/32" No. and Description of Furnaces in each Boiler Three, Morrison 3'-4 1/4" dia x 7'-7 11/16"
 { inner 1 7/32"

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

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

of stiffening rings on furnace or c.c. bottom

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"
 { back O. H. Steel { 26 - 30 tons { 13/16"

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#

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

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

Working pressure Three 7 5/8" by Rules - 229.3# Combustion chamber plates: Material O. H. Steel

Tensile 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

thickness 31/32" 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 Back 81 sq. in.
 At turned off part Back 1 3/4" Sides 1 7/8" No. of threads per inch 9. Area supported by each stay Sides 91.68 sq. in.
 Over threads

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" Stay 3" Thickness No. 8 LSG (.160) 3/8" x 5/16" No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/8" Working pressure by Rules 231 lbs. Manhole compensation: Size of open 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 diam. 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 " " " "

Number of elements - Material of tubes - Internal diameter and thickness of tubes -

Material of headers - 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

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 During erection on board vessel Mar. 2, 3, 5, 6, 8, 10, 11, 12, 15 Total No. of visits 27 All in shop & 39 = 66

1942-Dec: 16, 24, 1943-Jan: 7, 13, 18, 27
Feb: 4, 10, 16, 19, 26 Mar: 3, 9, 13
Apr: 3, 10, 15, 22, 30 May: 6, 9, 13, 16, 20, 26
June: 4, 12, 15 July: 3, 8, 14, 20, 27, 31 Aug: 5.

Are the approved plans of boiler and superheater forwarded herewith 29 Apr 43 (If not state date of approval.)

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

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| Boiler #9 - 4412 936 LLOYDS T.P. 380 W.P. 220 J.B.F.27.2.43 | Boiler #10 - 4413 937 LLOYDS T.P. 380 W.P. 220 J.B.F.12.3.43 | Boiler #11 - 4414 938 LLOYDS T.P. 380 W.P. 220 J.B.F.15.3.43 |
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Survey Fee ... \$ 150.00 : When applied for, Apr. 20 19 43

Travelling Expenses (if any) \$ 10.00 : When received, 19

Jas B Latus & H. Galt
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 1 OCT 1943

Assigned See minute on J.S. Rpt.

For S.S.C.F. see Fort Albany (ypl. 5870)