

REPORT ON BOILERS.

No. 165

REC'D NEW YORK June 17-1918

Received at London Office

Date of writing Report

When handed in at Local Office

Port of CLEVELAND, OHIO.

No. in Survey held at Buffalo, N.Y. Certificate Date, First Survey July 4 1918 Last Survey March 21 1918

Reg. Book. on the Main Boilers for S.S. LAKE LOUISE

Master Built at Cincinnati, O. By whom built The G.T. Lohr, E.J. W. When built 1918

Engines made at Cincinnati By whom made The G.T. Lohr, E.J. W. When made 1918

Boilers made at Buffalo, N.Y. By whom made Lake Erie Boiler Works When made 1918

Registered Horse Power Owners U.S. Shipping Board, Emergency Fleet Act belonging to Cincinnati

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Carnegie Steel Co.

(Letter for record S) Total Heating Surface of Boilers 4962 Is forced draft fitted No No. and Description of Boilers 2 Scotch Marine 2SB. Working Pressure 190 Tested by hydraulic pressure to 300# Date of test 21-3-18

No. of Certificate 117 Can each boiler be worked separately Yes Area of fire grate in each boiler 74.7# No. and Description of safety valves to each boiler Two Spring Area of each valve 12.57# Pressure to which they are adjusted 190#

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 or uptakes and bunkers or woodwork 8 1/2" Mean dia. of boilers 15'9" Length 11'0"

Material of shell plates O.H. Steel Thickness 1 3/32" Range of tensile strength 62720/71680 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap single R. long. seams B. D. S. Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 8 1/8"

Lap of plates or width of butt straps 19 3/4" Per centages of strength of longitudinal joint rivets 88.1 plate 83.84 Working pressure of shell by rules 200#

Size of manhole in shell 12" x 16" Size of compensating ring 2'9" x 2'9" x 1 1/8" No. and Description of Furnaces in each boiler 3 Morrison Material O.H. Steel Outside diameter 47 1/4" Length of plain part 4'8" Thickness of plates crown 5/8" bottom 5/8"

Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 200# Combustion chamber

Plates: Material O.H. Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1 1/8" Pitch of stays to ditto: Sides 7 1/8" x 7 1/8" Back 7 1/8" x 7 1/8"

Top 7 1/8" x 8 1/8" If stays are fitted with nuts or riveted heads nuts on top others riveted Working pressure by rules 198# Material of stays O.H. Steel Diameter at smallest part 2 5/8"

Area supported by each stay 50.76" Working pressure by rules 198# End plates in steam space: Material O.H. Steel Thickness 1 3/32"

Pitch of stays 16 1/4" x 17" How are stays secured Double nuts Working pressure by rules 203# Material of stays O.H. Steel Diameter at smallest part 2 5/8"

Area supported by each stay 276.25" Working pressure by rules 203# Material of Front plates at bottom O.H. Steel Thickness 3/4" Material of lower back plate O.H. Steel Thickness 3/8"

Greatest pitch of stays 7 1/8" x 7 1/8" Working pressure of plate by rules 219# Diameter of tubes 3 1/4"

Pitch of tubes 4 1/4" x 4 1/2" Material of tube plates O.H. Steel Thickness: Front 3/4" x 1 1/32" Back 3/4" Mean pitch of stays 8 1/2" x 9" Pitch across wide water spaces 13 1/4"

Working pressures by rules 215.6# Girders to Chamber tops: Material O.H. Steel Depth and thickness of girder at centre 8 3/8" x 7 1/4" x 2" Length as per rule 2'7 1/2" Distance apart 8 1/8" Number and pitch of Stays in each 3-7 1/2"

Working pressure by rules 204# Superheater or Steam chest: how connected to boiler None Can the superheater be shut off and the boiler worked separately

Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Plates Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

Stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

VERTICAL DONKEY BOILER— No. Description Run fitted Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

Tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

Length Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Top of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

Plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description, LAKE ERIE BOILER WORKS. L. W. Wheaton Mgr

Dates During progress of work in shops -- July 4-5-7-8-13-22-25-28 March 2-6-8-9-15-20-21

Survey while building During erection on board vessel -- Total No. of visits 15

Is the approved plan of main boiler forwarded herewith



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

These boilers have been built under special survey:-
 The materials and workmanship employed in their construction
 are sound and good, and proved satisfactory under test.
 They have been forwarded to The Great Lakes Engineering Co Astabula
 to be installed on board Hull No 181.

These Boilers have now been fitted on board The above Vessel.

W. Lane.
 Clerk
 31 May 1918.

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £	:	When applied for,
Special £	:19.....
Donkey Boiler Fee £	:	When received,
Travelling Expenses (if any) £	:19.....

Committee's Minute

Assigned

See clv. Rpt No. 165

New York JUN 10 1918

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



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