

REPORT ON BOILERS

No. 95
MON. OCT. 23 1917.

REC'D NEW YORK

October 1. 1917

Received at London Office

CLEVELAND, OHIO.

Date of writing Report 15 June 1917 When handed in at Local Office

191

Port of

No. in Survey held at Lorain Ohio

Date, First Survey 4 April 1917 Last Survey 12 June 1917

Reg. Book.

Number of Visits 14

21

Tons

Gross 2044.56

Net 1258.00

on the Single Screw Steel Steamer "Varchant"

Master Chas. S. Hall Built at Superior, Wis By whom built Superior Shipbuilding Co., When built 1917

Engines made at Detroit, Mich By whom made Detroit Shipbuilding Co., When made 1917

Boilers made at Lorain, O. By whom made The American Ship Bldg Co. (No 1177) When made 1917. 6

Registered Horse Power Owners Cunard Steamship Co Port belonging to London

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

Letter for record 5. Total Heating Surface of Boilers 5246 sq. ft. Is forced draft fitted No. and Description of

Boilers Two Cyl. Mult. S. E. Working Pressure 180 lb Tested by hydraulic pressure to 270 lb Date of test 2.6.17.

No. of Certificate 84 Can each boiler be worked separately YES Area of fire grate in each boiler 63 sq. ft. No. and Description of

Safety valves to each boiler 2-3 duplex Area of each valve 70 sq. in. Pressure to which they are adjusted 180 lb

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 No wood Int. diam. of boilers 14'-6" Length 11'-2 1/2"

Material of shell plates S. Thickness 1/4" Range of tensile strength 25/32 7. Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams L. S. R. long. seams DBS/TR. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 8 1/2"

Lap of plates or width of butt straps 19 3/4" Per centages of strength of longitudinal joint rivets 94.7 Working pressure of shell by

rules 192 lb Size of manhole in shell 15" x 11" Size of compensating ring 33" x 33" plate 84.6

No. and Description of Furnaces in each boiler 3 Main. Material S. Outside diameter 46" Length of plain part top Thickness of plates crown 5/8"

Description of longitudinal joint Weld. No. of strengthening rings Working pressure of furnace by the rules 219 lb Combustion chamber

plates: Material S. Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8" Pitch of stays to ditto: Sides 7 1/4" Back 7 1/4"

Top 8 x 7 1/2" If stays are fitted with nuts or riveted heads YES RIVETED Working pressure by rules 181 lb Material of stays S. Diameter at

smallest part 1.26 Area supported by each stay 55.3 Working pressure by rules 182 lb End plates in steam space: Material S. Thickness 1/32"

Pitch of stays 7 x 15 3/4" How are stays secured D. N. Working pressure by rules 199 lb Material of stays S. AREA. Diameter at smallest part 5.41"

Area supported by each stay 268 lb Working pressure by rules 210 lb Material of Front plates at bottom S. Thickness 1/16" Material of

Lower back plate S. Thickness 5/8" Greatest pitch of stays 12 1/2 x 6 1/2" Working pressure of plate by rules 266 lb Diameter of tubes 3 1/4"

Pitch of tubes 4 1/4 x 4 1/8" Material of tube plates S. Thickness: Front 3/4" Back 3/4" Mean pitch of stays 12 1/2 x 8 1/2" Pitch across wide

water spaces 13 3/4" Working pressures by rules 183 lb. Girders to Chamber tops: Material S. Depth and thickness of

girder at centre 8 7/8 x 1 1/2" Length as per rule 30" Distance apart 8" Number and pitch of Stays in each 3 @ 7 1/2"

Working pressure by rules 220 lb 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

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

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How secured

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

VERTICAL DONKEY BOILER—

No.

Description

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

strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap 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

Manufacturer.

Dates

During progress of work in shops --

1917. Apr. 4, 9, 12, 19, 25, 30. May 3, 7, 10, 17, 25, 31. June 6, 12.

while

During erection on board vessel --

1917 August 12, 13, 14, 21, 22, 23, 24, 25, 27, 28, 29, 30. Sept. 5, 6, 7, 12, 13, 14, 15, 21.

building

Total No. of visits

14.

Is the approved plan of main boiler forwarded herewith

1170

" " " donkey " "

Lloyd's Register

W1236-0164

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been constructed under Special Survey. The materials and workmanship employed in their manufacture are good and good and found satisfactory under test. They have been forwarded to Superior (Wis) to be fitted on board the Superior Shipbuilding Co. in 528 Ship.

The workmanship and materials are good and the boilers will be eligible in my opinion to receive the notation *LMC Port Arthur, Ont. 21/9/17.

Robert Lewis

Certificate (if required) to be sent to

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

The amount of Entry Fee .. £	:	:	When applied for,
Special ..	57:00	:	Sept 15 1917
Donkey Boiler Fee .. £	:	:	When received,
Travelling Expenses (if any) ..	66:00	:	Sept 15 1917

Committee's Minute New York OCT 9 1917

Assigned

See other Report

\$6.00 Travelling Expenses
W. Case

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register Foundation