

Rpt. 5.

## REPORT ON BOILERS.

No. 708

Date of writing Report Dec 17<sup>th</sup> 1919 When handed in at Local Office Dec 30<sup>th</sup> 1919 Port of Seattle Wash USA.

No. in Survey held at Seattle

Date, First Survey July 10<sup>th</sup> Last Survey Nov. 25<sup>th</sup> 1919

Reg. Book.

(Number of Visits 4) Gross 2139

First Entry on the Wood 5 Mast Schooner "BIANCA"

Tons Net 1946

Master R Pedersou

Built at Seattle

By whom built Elliott Bay S. B. Co. When built 1919

Engines made at

By whom made

When made

Donkey Boiler made at Seattle

By whom made Seattle Boiler Works

When made 1919

Registered Horse Power

Owners Bianca Shipping Co.

Port belonging to Seattle Wash.

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

(Letter for record) Total Heating Surface of Boilers Is forced draft fitted No. and Description of Boilers Working Pressure Tested by hydraulic pressure to Date of test

No. of Certificate Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to each boiler Area of each valve Pressure to which they are adjusted

Are they fitted with easing gear 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 Mean dia. of boilers Length

Material of shell plates Thickness Range of tensile strength Are the shell plates welded or flanged

Descrip. of riveting: cir. seams long. seams Diameter of rivet holes in long. seams Pitch of rivets

Lap of plates or width of butt straps Per centages of strength of longitudinal joint rivets Working pressure of shell by plate

rules Size of manhole in shell Size of compensating ring No. and Description of Furnaces in each boiler

Material Outside diameter Length of plain part top Thickness of plates crown bottom Working pressure of furnace by the rules Combustion chamber

Description of longitudinal joint No. of strengthening rings Working pressure of furnace by the rules

plates: Material Thickness: Sides Back Top Bottom Pitch of stays to ditto: Sides Back

Top If stays are fitted with nuts or riveted heads Working pressure by rules Material of stays Area at smallest part

Pitch of stays How are stays secured Working pressure by rules Material of stays Area at smallest part

Area supported by each stay Working pressure by rules Material of Front plates at bottom Thickness Material of

Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules Diameter of tubes

Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays Pitch across wide

water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of

girder at centre Length as per rule Distance apart Number and pitch of Stays in each

Working pressure by rules Steam dome: description of joint to shell % of strength of joint

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

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

## VERTICAL DONKEY BOILER—No. One Description Vertical tubular Manufacturers of steel North Bros.

Made at Seattle By whom made Seattle Boiler Works When made 1919 Where fixed Deck House Working pressure 160 lbs.

tested by hydraulic pressure to 240 Date of test July 31 No. of Certificate Fire grate area 16 ft Description of safety valves 2 1/2" spring loaded

No. of safety valves 1 Area of each 4.9 Pressure to which they are adjusted 160 lbs. If fitted with easing gear yes If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler 5'-0" Length 8'-3" Material of shell plates Steel Thickness 1/2" Range of tensile strength 70,000 lbs. Descrip. of riveting long. seams Double Butted Dia. of rivet holes 15/16 Whether punched or drilled Drilled Pitch of rivets 3/4"

Lap of plates 17 1/2 Per centage of strength of joint Rivets 8x7 Working pressure of shell by rules 178 Thickness of shell crown plates 1/2"

Radius of do. 24 1/2 No. of Stays to do. 234 Dia. of stays 2" Diameter of furnace Top 4'-6" Bottom Length of furnace 2'-4"

Thickness of furnace plates 1/2 Description of joint Lap Double Butted Working pressure of furnace by rules 185 Thickness of furnace crown plates 1/2 Radius of do. Flat Stayed by 234 Expanded and Beaded Tubes Diameter of uptake Thickness of uptake plates

Thickness of water tubes #13 BWC

The foregoing is a correct description,  
Seattle Boiler Works  
Manufacturer.

Dates of Survey while building

During progress of work in shops July 10-31, 1919

During erection on board vessel Nov. 3-25, 1919

Total No. of visits 4

Is the approved plan of main boiler forwarded herewith

" donkey "

" yes "

W1571-0029



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

The Donkey Boiler for this vessel built and installed under special survey and in accordance with the approved plan; the material, <sup>tested</sup> as required by the rules of the Society, the workmanship of good quality, tested by hydraulic pressure to 240 lbs per square inch and safety valves adjusted under steam at 160 lbs.

It is submitted that this vessel is eligible for

THE RECORD + D. B. 160 lbs

18/2/20

JWR

James Fowler

Surveyor to Lloyd's Register

Certificate (if required) to be sent to  
(The Surveyor are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. \$ 5 : 00 :	When applied for,
Special .. .. £ ✓ :	Dec 31 - 19
Donkey Boiler Fee .. .. \$ 50 : 00 :	When received,
Travelling Expenses (if any) \$ 2 : 00 :	19

Committee's Minute New York JAN 20 1920

Assigned

+ D. B '19 - 160 lbs

TUE. SEP. 5 1922

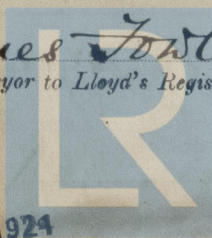
FRI. APR. 7 1922

WED. 24 JUN 1921

TUE. 5 MAY 1922

FRI 8 AUG 1924

James Fowler  
Engineer Surveyor to Lloyd's Register of Shipping



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Foundation