

# REPORT ON BOILERS.

Received of London Office

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 Seattle By whom made Seattle Boiler Works When made 1919

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 plate Working pressure of shell by 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 bottom Thickness of plates crown bottom

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

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

Area supported by each stay Working pressure by rules End plates in steam space: Material Thickness

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 sq 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 57,000 lbs

Descrip. of riveting long. seams Double Butted Dia. of rivet holes 15/16" Whether punched or drilled Drilled Pitch of rivets 3-3/4"

Substrap in 17 1/2" Rivets 58-7 Working pressure of shell by rules 178 Thickness of shell crown plates 1/2"

Lap of plating 1 1/2" Per centage of strength of joint 87.5 Diameter of furnace Top 4'-6" Bottom 4'-6" Length of furnace 2'-4"

Radius of do. Flat No. of Stays to do. 234 Dia. of stays 2" Diameter of furnace Top 4'-6" Bottom 4'-6" 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 Diameter of uptake ✓ Thickness of uptake plates ✓

Thickness of water tubes # 13 BWC ✓

The foregoing is a correct description,  
Seattle Boiler Works  
Harold A. Hopkins 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 copy only

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

James Fowler  
Surveyor to Lloyd's Register

JWF  
18/2/20

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 .. \$ 5 : 00 :	When applied for,
Special .. .. £ ✓ :	Dec 31 - 1919
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. MAY 1922

FRI 8 AUG 1924

James Fowler  
Engineer Surveyor to Lloyd's Register of Shipping



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Foundation