

# REPORT ON WATER TUBE BOILERS.

No. 6863

Received at London Office

17 FEB 1933

Date of writing Report JAN 31 19 33 When handed in at Local Office

19

Port of San Francisco Calif

No. in Survey held at Quincy, Mass + San Francisco Date, First Survey 4 Feb 1932. Last Survey Jan 27 1933  
 Reg. Bk. 6674 on the T.W. S.C. S/S LURLINE (Number of Visits 9) Gross Tons 18021  
 Master Built at Quincy, Mass By whom built Bethlehem S.B. Corp When built 1932  
 Engines made at Quincy, Mass By whom made d When made 1932  
 Boilers made at Bayonne N.J. By whom made Babcock + Wilcox Co. When made 1932  
 NOMINAL Horse Power 5363 Owners Oceanic S.S. Co. Port belonging to San Francisco

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

(Letter for Record 5) Date of Approval of plan \_\_\_\_\_ Number and Description or Type of Boilers 12 Babcock + Wilcox Working Pressure 400 lbs Tested by Hydraulic Pressure to 600 lbs Date of Test \_\_\_\_\_

No. of Certificate \_\_\_\_\_ Can each boiler be worked separately yes Total Heating Surface of Boilers 53520 sq ft

Is forced draught fitted yes Area of fire grate (coal) in each Boiler \_\_\_\_\_ Total grate area of boilers in vessel including Main and Auxiliary \_\_\_\_\_ No. and type of burners (oil) in each boiler 4 B+N No and description of safety valves on each boiler 2 spring loaded Area of each valve 9.62 sq ft Pressure to which they are adjusted 400 lbs

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 AMPLE Height of Boiler 18'-7 1/2" Width and Length 16'-0" x 13'-8"

Steam Drums:—Number in each boiler ONE Inside diameter 41 5/8" Material of plates STEEL Thickness 1 5/16"

Range of Tensile Strength 60-70000 LBS Are drum shell plates welded or flanged No Description of riveting:—

Cir. seams DOUBLE long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 3/32" Pitch of Rivets 6"

Lap of plate or width of butt straps 2 1/4" Thickness of straps 7/16" + 1" Percentage strength of long. joint:—Plate 82.8 Rivet 104

Diameter of tube holes in drum 4 1/2" Pitch of tube holes 7" Percentage strength of shell in way of tubes 87.5

1932 If Drum has a flat side state method of staying \_\_\_\_\_ Depth and thickness of girders at centre

1932 (if fitted) Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_ Working pressure

by rules \_\_\_\_\_ Steam Drum Heads or Ends:—Material STEEL Thickness 1 1/8" Radius or how stayed 41 5/8" R.

1932 Size of Manhole or Handhole 12" x 16" Water Drums:—Number in each boiler ONE Inside Diameter 6" sq

Material of plates STEEL Thickness 5/8" Range of tensile strength 55000 LBS Are drum shell plates welded or flanged SEAMLESS Description of riveting:—Cir. seams \_\_\_\_\_ long. seams \_\_\_\_\_ Diameter of Rivet Holes in long. seams \_\_\_\_\_ Thickness of straps \_\_\_\_\_

Percentage strength of long. joint:—Plate \_\_\_\_\_ Rivet \_\_\_\_\_ Diameter of tube holes in drum \_\_\_\_\_ Pitch of tube holes \_\_\_\_\_

Percentage strength of drum shell in way of tubes \_\_\_\_\_ Water Drum Heads or Ends:—Material STEEL Thickness 7/8"

Radius or how stayed FLAT Size of manhole or handhole 4 1/2" x 5 1/2" Headers or Sections:—Number 22

Material STEEL Thickness 1 7/32" Tested by Hydraulic Pressure to 1000 LBS Material of Stays NONE

Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working Pressure by Rules \_\_\_\_\_ Tubes:—Diameter 2" + 4"

Thickness 134" + 203" Number 731 2" 44" 4" Steam Dome or Collector:—Description of Joint to Shell NONE

Percentage strength of Joint \_\_\_\_\_ Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_

Description of longitudinal joint \_\_\_\_\_ Diameter of Rivet Holes \_\_\_\_\_ Pitch of Rivets \_\_\_\_\_ Working Pressure of shell

by Rules \_\_\_\_\_ Crown or End Plates:—Material \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

UPERHEATER. Type B+W Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to 800 LBS NOT SHUT OFF

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 \_\_\_\_\_

Is a drain cock or valve fitted at lowest point of superheater YES Number, diameter, and thickness of tubes 204 - 1 1/2" - 120"

Spare Gear. Tubes 50-4" Gaskets or joints:—Manhole 124 Handhole 50 Handhole plates 50

50-2"

The foregoing is a correct description,  
 THE BABCOCK & WILCOX CO. Manufacturer.  
J. H. King, Mgr. Marine Dept.  
 FORWARDED WITH 56 MARIPOSA

Is the approved plan of boiler forwarded herewith

Dates of Survey } During progress of work in shops -- }  
 while building } During erection on board vessel -- }  
1932 4 Feb 2+4 Nov. 19, 20, 21 DEC. Total No. of visits 9  
JAN 25, 26, 27, 1933.

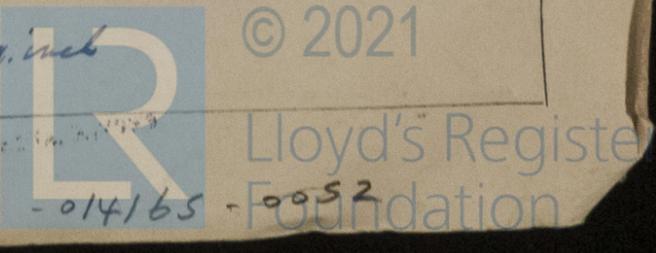
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These water tube boilers have not been built under Special Survey but they have been examined & the workmanship + material are good. They have been tested by American Bureau of Shipping + U.S. Govt Inspectors. They are now in good + safe working condition + eligible, in our opinion, to receive the notation 400LBS in the Register Book.

Survey Fee ... .. £ CHARGED: } When applied for, ✓ 10  
 Travelling Expenses (if any) £ ON HULL } When received, ✓ 10  
 RPT FORM

J. H. King + John S. Heck  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK FEB 8 - 1933

Assigned 12 W.T.B. - Steam Pressure 400 lbs per sq. inch



014159 - 014165 - 0052