

REC'D NEW YORK MAR 16 1931

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 2650

Received at London Office - 4 APR 1931

Date of writing Report MARCH 6TH 1931 When handed in at Local Office 19 Port of BOSTON

No. in Survey held at BARBERTON, OHIO, BAYONNE, N.J. & QUINCY Date, First Survey SEPT 15 - 1930 Last Survey FEBRUARY 26 1931
 Reg. Bk. on the T.S. "HARRY F. SINCLAIR JR" (Number of Visits 12) Tons { Gross 6151
 Net 3796
 Master Wm Built at QUINCY By whom built BETHLEHEM SHIPBUILDING CORP. When built 1931
 Engines made at TRENTON, N.J. By whom made DELAVAL STEAM TURBINE CO When made 1931
BAYONNE, N.J.
 Boilers made at BARBERTON, OHIO By whom made BABCOCK & WILCOX CO When made 1931
 Registered Horse Power 4000 Owners SINCLAIR NAVIGATION CO. Port belonging to NEW YORK, N.Y.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel BETHLEHEM STEEL CO
 (Letter for Record "S") Date of Approval of plan DECEMBER 5TH 1929 Number and Description or Type
 of Boilers THREE WATERTUBE BOILERS Working Pressure 400 Tested by Hydraulic Pressure to 600 LBS Date of Test MAY 8TH
 No. of Certificate INDUCED Can each boiler be worked separately YES Total Heating Surface of Boilers 10,116 39. 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 THREE B.W. "CUYAMA TYPE" No. and description of safety valves on
 each boiler TWO MADE BY CONSOLIDATED ASHSROFT CO Area of each valve 7.067 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 24" Height of Boiler 16 FT. Width and Length 13' x 17'3"
Steam Drums:—Number in each boiler THREE Inside diameter 47 3/8" Material of plates STEEL Thickness 1 3/32"
 Range of Tensile Strength 63000 LBS. MINIMUM Are drum shell plates welded or flanged NO Description of riveting:—
 Cir. seams L.D.R. long. seams D.B.T.R. Diameter of rivet holes in long. seams 1 1/32" Pitch of Rivets 6"
 Lap of plate or width of butt straps 10 1/16" Thickness of straps 1 1/16" Percentage strength of long. joint:—Plate 82.8 Rivet 73.8
 Diameter of tube holes in drum 4 1/32" Pitch of tube holes 7" Percentage strength of shell in way of tubes 84.8
 If Drum has a flat side state method of staying 4" Depth and thickness of girders at centre
 (if fitted) Distance apart Number and pitch of stays in each Working pressure
 by rules 478 LBS **Steam Drum Heads or Ends:**—Material STEEL Thickness 1 1/16" Radius or how stayed 47 3/8"
 Size of Manhole or Handhole 12" x 16" **Water Drums:**—Number in each boiler ONE Inside Diameter 7 1/4" SQUARE
 Material of plates STEEL Thickness 3/4" Range of tensile strength 62000 LBS TO 72000 Are drum shell plates welded
 or flanged ✓ Description of riveting:—Cir. seams ✓ long. seams ✓ Diameter of Rivet Holes in
 long. seams ✓ Pitch of rivets ✓ Lap of plates or width of butt straps ✓ Thickness of straps ✓
 Percentage strength of long. joint:—Plate ✓ Rivet ✓ Diameter of tube holes in drum 4 1/32" Pitch of tube holes 7"
 Percentage strength of drum shell in way of tubes ✓ **Water Drum Heads or Ends:**—Material STEEL Thickness 3/4"
 Radius or how stayed ✓ Size of manhole or handhole 4 9/16" x 5 1/2" **Headers or Sections:**—Number 17
 Material STEEL Thickness 3/4" Tested by Hydraulic Pressure to 600 LBS PER SQ. IN. Material of Stays ✓
 Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ **Tubes:**—Diameter 4" x 2"
 Thickness 4" No. 6 2" No. 10 Number 34-4" 495-2" **Steam Dome or Collector:**—Description of Joint to Shell ✓
 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 ✓

SUPERHEATER. Type B.W. Date of Approval of Plan ✓ Tested by Hydraulic Pressure to 800 LBS.
 Date of Test MAY 8TH 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 141, 1 1/4" No. 11.
Spare Gear. Tubes 48 Gaskets or joints:—Manhole 24 Handhole 25 Handhole plates 11

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - } Is the approved plan of boiler forwarded herewith YES
 while building { During erection on board vessel - - } SEPT. 15, 26 OCT. 4, 7, 23 DEC. 1, 6, 15, 27, FEB 2-20-26 Total No. of visits 12

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) THE ABOVE MENTIONED BOILERS HAVE BEEN
FITTED ON BOARD THE VESSEL IN ACCORDANCE WITH THE RULES AND APPROVED PLANS. THEY WERE TESTED WITH WATER
TO A PRESSURE OF 600 LBS PER SQ. IN. AFTER BEING ASSEMBLED ON BOARD. THE SAFETY VALVES WERE ADJUSTED TO
A PRESSURE OF 400 LBS UNDER STEAM. QUALITY OF WORKMANSHIP AND MATERIALS IS GOOD. IN THE OPINION
OF THE UNDERSIGNED THEY ARE ELIGIBLE TO HAVE THE RECORD OF B.S.-231 IN THE REGISTER BOOK.

Survey Fee ... £ ✓ : } When applied for, 19
 Travelling Expenses (if any) £ : : } When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAR 25 1931

Assigned 3 Water Tube Boilers - Steam Pressure
400 lbs per square inch.



Lloyd's Register Foundation

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