

# REPORT ON BOILERS

No. 4659

MON. 24 SEP. 1923

Received at London Office

Date of writing Report SEP 5<sup>th</sup> 1923, When handed in at Local Office SEP 5<sup>th</sup> 1923, Port of PHILADELPHIA

No. in Survey held at CHESTER, PA Date, First Survey JULY 10<sup>th</sup> Last Survey SEP 5<sup>th</sup> 1923

Reg. Book. 1917 on the MOTORSHIP "BIDWELL" (Number of Visits 2) Tons { Gross 697 Net 478.4

Master [initials] Built at BALTIMORE By whom built BALTIMORE I.R. & S.B. Co. When built 1920

Engines made at CHESTER, PA By whom made SUN. S. & K. D. Co. When made 1923

Boilers made at BALTIMORE By whom made BALTIMORE I.R. & S.B. Co. When made 1920

Registered Horse Power [blank] Owners SUN. S. & K. D. Co. Port belonging to PHILADELPHIA

**MULTITUBULAR BOILER** ~~MAIN~~, AUXILIARY OR DONKEY. — Manufacturers of Steel CARNegie STEEL CO. AND WORTH BROS. CHATEAUVILLE

Letter for record Y Total Heating Surface of Boiler 2642 sq ft Is forced draft fitted YES No. and Description of Boilers ONE, SINGLE ENDED Working Pressure 200 lbs. Tested by hydraulic pressure to 300 lbs. Date of test 26-7-23

No. of Certificate — Can each boiler be worked separately — Area of fire grate in each boiler 675 sq ft No. and Description of Safety valves to each boiler THREE-SPRING LOADED Area of each valve 2.62 sq in Pressure to which they are adjusted 200 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 3'-10" Mean dia. of boilers 18'-3" Length 11'-6 1/2"

Material of shell plates STEEL Thickness 1 1/8" Range of tensile strength 26-32 Are the shell plates welded or flanged NO

Description of riveting: cir. seams D.B. LAP long. seams D.B. STAPLES Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 10-12"

Width of butt straps 22" Per centages of strength of longitudinal joint rivets 100% Working pressure of shell by plate 200 lbs.

No. and Description of Furnaces in each boiler 3-MORISON Material STEEL Outside diameter 46-25" Length of plain part — Thickness of plates crown 1 1/8" bottom 1 1/8"

Description of longitudinal joint WELDED No. of strengthening rings — Working pressure of furnace by the rules 127 lbs. Combustion chamber plates: Material STEEL Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 3/8" Pitch of stays to ditto: Sides 2'-7" Back 2'-7"

Top 3'-2" If stays are fitted with nuts or riveted heads RIVETED Working pressure by rules 200 lbs. Material of stays IRON Area at smallest part 1'-7" Area supported by each stay 2'-0" Working pressure by rules 257 lbs. End plates in steam space: Material STEEL Thickness 1 1/8"

Pitch of stays 1'-2 1/2" How are stays secured D. NUTS Working pressure by rules 271 lbs. Material of stays STEEL Area at smallest part 1'-7"

Area supported by each stay 2'-0" Working pressure by rules 200 lbs. Material of Front plates at bottom STEEL Thickness 3/8" Material of lower back plate STEEL Thickness 3/8" Greatest pitch of stays 15" Working pressure of plate by rules 200 lbs. Diameter of tubes 3"

Pitch of tubes 4'-2" Material of tube plates STEEL Thickness: Front 3/8" Back 3/8" Mean pitch of stays 2'-5" Pitch across wide —

Inter spaces 14" Working pressures by rules 217-160 lbs. Girders to Chamber tops: Material STEEL Depth and thickness of —

Joinder at centre 10" x 1 1/2" Length as per rule 2'-10" Distance apart 5'-2" Number and pitch of Stays in each THREE-8"

Working pressure by rules 185 lbs. Steam dome: description of joint to shell NONE % 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 —

**SUPERHEATER** Type FOSTER Date of Approval of Plan — Tested by Hydraulic Pressure to 300 lbs.

Date of Test 29-7-23 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler YES

Diameter of Safety Valve 1" Pressure to which each is adjusted 210 lbs. Is Easing Gear fitted YES

The foregoing is a correct description, \_\_\_\_\_ Manufacturer.

Is the approved plan of boiler forwarded herewith YES

Total No. of visits 2

Dates: During progress of work in shops 1923  
 while in position on board vessel JULY 10, 27, 28, 29, 30, 31, 1923

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) THE BOILER HAS NOT BEEN BUILT UNDER SPECIAL SURVEY, BUT HAS BEEN EXAMINED THROUGHOUT TOGETHER WITH THE SAFETY VALVES OTHER MOUNTINGS & SUPERHEATER, AND FOUND IN ACCORDANCE WITH THE APPROVED PLAN. WAS TESTED BY HYDRAULIC PRESSURE TO 300 LBS. & FOUND TIGHT & SOUND. THE SAFETY VALVES ADJUSTED AS ABOVE. IN MY OPINION IT IS ELIGIBLE FOR RECORD OF B.S. 9-23

Survey Fee ... 25.00 When applied for, 7 Sep. 1923  
 Travelling Expenses (if any) £ ... When received, 4.12.23

Engineer Surveyor to Lloyd's Register of Shipping. J.W. Bush

Committee's Minute \_\_\_\_\_

Signed See attached report Phil. 4659.

New York SEP 11 1923

Lloyd's Register Foundation 009689-009696-0225