

REPORT ON BOILERS.

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No. of Survey Report *101* Port of *New York and Philadelphia Pa.*
 No. in Survey held at *Bayonne N.J.* Date, First Survey *Philadelphia* Last Survey *2nd May 1919*
 No. of Book. *101* (Number of Visits) Gross *5784*
 on the *STEEL SCREW STEAMER "SARCOXIE"* Tons Net *3513*
 Master *C. E. Hilton* Built at *Philadelphia* By whom built *American International Corp.* When built *1919*
 Engines made at *Schenectady N.Y.* By whom made *General Electric Co.* When made *1918*
 Boilers made at *Bayonne N.J.* By whom made *Babcock & Wilcox Co.* When made *1918*
 Registered Horse Power *600* Owners *United States Shipping Board* Port belonging to *Philadelphia*
Emergency Ship Corporation

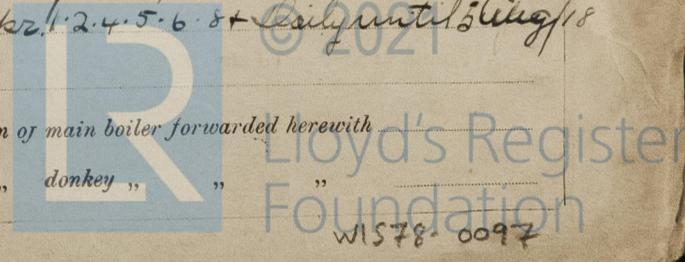
MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Laken's Steel Co*

Letter for record *S* Total Heating Surface of Boilers *8706 sq ft* Is forced draft fitted *yes* No. and Description of Boilers *Three Water Tube* Working Pressure *200 lb* Tested by hydraulic pressure to *400 lb* Date of test *29/1/19*
 No. of Certificate *282* Can each boiler be worked separately *yes* Area of fire grate in each boiler *✓* No. and Description of Safety valves to each boiler *Two direct spring* Area of each valve *7.06 sq in* Pressure to which they are adjusted *200*
 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 *✓* Mean dia. of boilers *12 in* Length *14' 7 3/8 in*
 Material of shell plates *Steel* Thickness *1/2 in* Range of tensile strength *60,000* Are the shell plates welded or flanged *no*
 Descrip. of riveting: cir. seams *S. R. Lap* long. seams *D. R. D. B. S.* Diameter of rivet holes in long. seams *29/32 in* Pitch of rivets *2 3/4 in*
 Lap of plates or width of butt straps *9 3/4 in* Per centages of strength of longitudinal joint *108* Working pressure of shell by rules *80.1*
 Size of manhole in shell *15 in x 11 in* Size of compensating ring *7 1/2 in* No. and Description of Furnaces in each boiler *✓*
 Material *✓* Outside diameter *✓* Length of plain part *✓* Thickness of plates *✓*
 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 *✓* Diameter at smallest part *19 in*
 Area supported by each stay *✓* Working pressure by rules *✓* End plates in steam space: Material *Steel* Thickness *3/2 in*
 Pitch of stays *✓* How are stays secured *Dished ends 42 in R* Working pressure by rules *200 lb* Material of stays *✓* Diameter 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 *✓* Superheater or Steam chest: how connected to boiler *✓* Can the superheater be shut off and the boiler worked separately *yes* Diameter *✓* Length *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓* Pitch of rivets *✓* Working pressure of shell by rules *✓* Diameter of flue *✓* Material of flue plates *✓* Thickness *✓*
 If stiffened with rings *✓* Distance between rings *✓* Working pressure by rules *✓* End plates: Thickness *✓* How stayed *✓*
 Working pressure of end plates *✓* Area of safety valves to superheater *1 in* Are they fitted with easing gear *yes*

VERTICAL DONKEY BOILER— No. Description Manufacturers of steel
 Made at By whom made When made Where fixed Working pressure
 tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves
 No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler
 Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength
 Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets
 Lap of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates
 Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace
 Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates
 Radius of do. Stayed by Diameter of uptake Thickness of uptake plates
 Thickness of water tubes

The foregoing is a correct description,
 per *J. Stenger* *Babcock & Wilcox Co.* *Maine Dep.*

Dates of Survey while building: During progress of work in shops - - - *1918 Jan 30 Feb. Mar 6 14 15 18 19 21 22 25 27 28 29 30* April 1 2 4 5 6 8 + Daily until 5 Aug/18
 During erection on board vessel - - -
 Total No. of visits
 Is the approved plan of main boiler forwarded herewith
 " " " donkey " "



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

These boilers have been constructed under Special Survey and in accordance with plans approved July 18-1917. The workmanship and material are both of good quality. The steam-drums and sections have been tested by hydraulic pressure to 400 lbs per sq inch, and found tight and sound. They have now been despatched for fitting aboard. To complete the survey the boilers to be re-erected on board, and tested by hydraulic pressure, all mountings to be examined and fitted. Safety-valves to be adjusted under steam.

Philadelphia:- Boilers erected aboard, mountings examined and fitted, hydraulic test of 400 lbs applied, and safety valves adjusted under steam to 200 lbs.

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 .. £	:	:	When applied for,
Special £	:	:19.....
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	:	:19.....

Alexander Macworth
Engineer Surveyor to Lloyd's Register of Shipping.
J. Blalock.

Committee's Minute
Assigned
New York MAY 13 1919
See Phil. Rpt No 3234.