

# REPORT ON BOILERS.

No. 509

MON. 20 AUG. 1917

REC'D NEW YORK

July 17 1917

Received at London Office

Date of writing Report

When handed in at Local Office

Port of Seattle, Wash U.S.A.

No. in Survey held at Seattle

Date, First Survey March 29<sup>th</sup> Last Survey June 8<sup>th</sup> 1917

Reg. Book.

EST. ENTRY on the Steel Screw Steamer JOSIAH MACY (Builders yard N<sup>o</sup>. 4)

Gross Tons  
Net

Builder Seattle By whom built Skinner & Eddy Corporation When built 1917

Engines made at Schenectady N.Y. By whom made General Electric Company when made 1917

Boilers made at Seattle By whom made Commercial Boiler Works when made 1917

Registered Horse Power 2500 Owners Standard Oil Co. of New Jersey Port belonging to Bayonne N.J.

## MULTITUBULAR BOILERS — ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel North York

Letter for record New York May 25 1916 Total Heating Surface of Boilers 1303 sq ft Is forced draft fitted No No. and Description of Boilers One Scotch Marine Donkey Boiler Working Pressure 180 Tested by hydraulic pressure to 270 lbs Date of test April 26

No. of Certificate — Can each boiler be worked separately — Area of fire grate in each boiler 42 sq ft No. and Description of Safety valves to each boiler 2 Ashton 2 1/2" dia Area of each valve 4.9 sq in Pressure to which they are adjusted 180 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No. No. return valve fitted Smallest distance between boiler's or uptakes and bunkers 24" Outside Mean dia. of boilers 11'-1 1/4" Length 11'-0"

Material of shell plates Steel Thickness 1 1/4" Range of tensile strength 60,000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double long. seams triple Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7/2"

Width of butt straps 16" Percentages of strength of longitudinal joint: rivets 86.5 Working pressure of shell by plate 85.8 No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 44.06" Length of plain part — Thickness of plates: crown 17/32" bottom —

Description of longitudinal joint — No. of strengthening rings — Working pressure of furnace by the rules 185 Combustion chamber plates: Material Steel Thickness: Sides 4/16" Back 4/16" Top 4/16" Bottom 1 1/2" Pitch of stays to ditto: Sides 8" x 8" Back 8" x 8"

Top 8" x 8" If stays are fitted with nuts or riveted heads Top nuts Working pressure by rules 189 Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 64 sq in Working pressure by rules 207 End plates in steam space: Material Steel Thickness 1 1/2"

Pitch of stays 15" x 16" How are stays secured Double nuts Working pressure by rules 198 Material of stays Steel Diameter at smallest part 2 7/8" Area supported by each stay 240 sq in Working pressure by rules 281 Material of Front plates at bottom Steel Thickness 3/4" Material of

Lower back plate Steel Thickness 3/4" + 5/8" double Greatest pitch of stays 14" Working pressure of plate by rules 257 Diameter of tubes 3" Pitch of tubes 4" Material of tube plates Steel Thickness: Front 3/4" + 5/8" double Back 3/4" Mean pitch of stays 10" Pitch across wide

Water spaces 13" Working pressures by rules 239 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 1/4" x 3/4" Length as per rule 32" Distance apart 8" Number and pitch of Stays in each 3-8" centres

Working pressure by rules 222 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet

Plates — Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness — 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 — Are they fitted with easing gear —

Skinner & Eddy Corp. Shipbuilders  
by E. N. McBallin

The foregoing is a correct description,  
Commercial Boiler Works  
J. A. Pot Manufacturer.

Dates: During progress of work in shops - March 29 - April 3 - 14 - 26  
while During erection on board vessel - May 14 - 26 - June 8

Is the approved plan of boiler forwarded herewith —  
Total No. of visits 7

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

The donkey boiler and mountings have been constructed and installed under special survey and the boiler built in accordance with the approved plan; the material and workmanship are both of good quality; boiler tested by hydraulic pressure to 270 lbs and safety valves adjusted under steam at 180 lbs and found satisfactory.

Survey Fee See report on Machinery When applied for, — 19  
Travelling Expenses (if any) £ — When received, — 19

James Fowler  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute  
Assigned

New York JUL 31 1917  
See other report

