

REPORT ON BOILERS.

No. 3439.

Received of London Office

22 DEC 1924

Date of writing Report Oct 30 1924 When handed in at Local Office 10 Port of Yokohama
 No. in Survey held at Tsurumi, Yokohama. Date, First Survey June 23, 1921. Last Survey Oct 8, 1924
 Reg. Book. on the Steel Twin Screw Steamer Bokuyo Maru (Number of Visits 43) Gross 8603.55 Tons Net
 Master Built at Tsurumi, Yokohama By whom built Asano Ship building Coy. When built Oct. 1924
 Engines made at Indianapolis, U.S.A. By whom made Midwest Engineering Coy. When made 1920
 Boilers made at Tsurumi, Yokohama By whom made Asano Shipbuilding Coy. When made 1924
 Registered Horse Power 923.5 Owners Toyo Kisen Kaisha Port belonging to Yokohama

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record S.) Total Heating Surface of Boilers 9844.4 Is forced draft fitted yes No. and Description of Boilers Four multitubular, Single ended Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 15 May 1924
 No. of Certificate ✓ Can each boiler be worked separately yes Area of fire grate in each boiler 60.4 No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 11 sq 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 14'-3" Length 11'-6"
 Material of shell plates Steel Thickness 1 13/32" Range of tensile strength 28-32 Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams D.R.L. long. seams TRABS. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10"
 Lap of plates or width of butt straps 22" Per centages of strength of longitudinal joint rivets 86.3% Working pressure of shell by rules 223 Size of manhole in shell 12 x 16" Size of compensating ring 3'-0 1/2" x 2'-8" x 1 1/2" No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 3'-10 1/8" Length of plain part 8'-7 3/4" Thickness of plates crown 5/8" bottom 5/8"
 Description of longitudinal joint Weld No. of strengthening rings ✓ Working pressure of furnace by the rules 210 Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 15/16" Pitch of stays to ditto: Sides 10 x 7 1/2" Back 8 1/2 x 8 1/2" Top 8 x 9 1/4" stays are fitted with nuts or riveted heads nuts Working pressure by rules 269 Material of stays Steel Area at smallest part 1.74 Area supported by each stay 75 Working pressure by rules 249 End plates in steam space: Material Steel Thickness 1 3/16" Pitch of stays 1'-4 1/2" How are stays secured DN & W. Working pressure by rules 207 Material of stays Steel Area at smallest part 8.946
 Area supported by each stay 3 1/3 Working pressure by rules 254 Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 14" Working pressure of plate by rules 202 Diameter of tubes 3" Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 8 1/2" Pitch across wide water spaces 13 1/2" Working pressures by rules 200 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 x 1 3/4" Length as per rule 2'-7 1/4" Distance apart 8" Number and pitch of Stays in each 2 @ 9 1/4"
 Working pressure by rules 306 Steam dome: description of joint to shell ✓ % 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's Date of Approval of Plan Made in USA. Tested by Hydraulic Pressure to 600 lbs.
 Date of Test June 2nd Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
 Diameter of Safety Valve 3 3/4" Pressure to which each is adjusted 200. Is Easing Gear fitted yes.

The foregoing is a correct description,
M. Sugawara Manufacturer.

Dates of Survey while building: During progress of work in shops - 1921, June 23, Oct 2, 22, 1922, Jan 10, Feb 1, Mar 1, 8, 15, 29, Apr 10, 25, May 16, 1923, June 2, 3, 7, 10, 19, July 2, 3, 9, 11, 25, 29 Is the approved plan of boiler forwarded herewith Yes.
 During erection on board vessel - From June 11th Total No. of visits 43.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 The Boilers of this vessel have been built in accordance with the requirements of the Rules, the materials & workmanship have been found good. The Boilers are eligible in my opinion to have the Award of B.P. 10. 24.

Survey Fee ... £ See Engine Report When applied for, 19.
 Travelling Expenses (if any) £ ✓ When received, 19.

Committee's Minute FRI. 2 JAN 1925
 Assigned

R. A. Atchute
 Engineer Surveyor to Lloyd's Register of Shipping.

