

REPORT ON BOILERS.

No. 4365

Received at London Office

THU. 15 MAY. 1924

Date of writing Report 26<sup>th</sup> Mar. 1924 When handed in at Local Office

10 Port of Kobe

No. in Survey held at Osaka  
Reg. Book. on the S.S. "KOAN MARU"

Date, First Survey 31<sup>st</sup> July 1923 Last Survey 26<sup>th</sup> March 1924

(Number of Visits) Gross 3180  
Tons Net 1973

Master Built at Osaka By whom built Osaka Iron Works When built 1924  
Engines made at Osaka By whom made Osaka Iron Works When made 1924  
Boilers made at Osaka By whom made Osaka Iron Works When made 1924  
Registered Horse Power Owners Kiomi Shoji Kabushiki Kaisha Port belonging to Kobe

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel The Steel Co. of Scotland, Ltd.  
South Durham Steel & Iron Co.  
Parkgate Iron & Steel Co.  
J. Marshall & Co.

(Letter for record S.) Total Heating Surface of Boilers 3824  $\frac{1}{2}$  Is forced draft fitted Yes No. and Description of

Boilers 2 S.E. multitubular Working Pressure 180  $\frac{1}{2}$  Tested by hydraulic pressure to 320  $\frac{1}{2}$  Date of test 13-2-24.

No. of Certificate 293 Can each boiler be worked separately Yes Area of fire grate in each boiler 45  $\frac{1}{2}$  No. and Description of  
safety valves to each boiler 2 spring loaded Area of each valve 8.29  $\frac{1}{2}$  Pressure to which they are adjusted 185  $\frac{1}{2}$   $\frac{1}{2}$

23. 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 18  $\frac{1}{2}$  Mean dia. of boilers 13-6  $\frac{1}{2}$  Length 11-5  $\frac{1}{2}$

12/14. Material of shell plates Steel Thickness 1  $\frac{1}{8}$  Range of tensile strength 28-35  $\frac{1}{2}$  Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R.L. long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1  $\frac{1}{16}$  Pitch of rivets 8  $\frac{3}{8}$

Lap of plates or width of butt straps 1  $\frac{3}{4}$   $\times$  1  $\frac{1}{4}$  Per centages of strength of longitudinal joint rivets 87-0 plate 85-8 Working pressure of shell by

rules 183  $\frac{1}{2}$  Size of manhole in shell in end plate Size of compensating ring No. and Description of Furnaces in each

boiler 3 Reighans Material Steel Outside diameter 3-1  $\frac{1}{8}$  Length of plain part top Thickness of plates crown 2  $\frac{1}{2}$  bottom 1  $\frac{3}{16}$

Description of longitudinal joint Weld No. of strengthening rings Working pressure of furnace by the rules 220  $\frac{1}{2}$  Combustion chamber

plates: Material Steel Thickness: Sides 1  $\frac{1}{16}$  Back 3  $\frac{1}{4}$  Top 1  $\frac{1}{16}$  Bottom 7  $\frac{1}{8}$  Pitch of stays to ditto: Sides 7  $\frac{1}{2}$   $\times$  8  $\frac{3}{4}$  Back 8  $\frac{3}{4}$   $\times$  10  $\frac{1}{2}$

Top 7  $\frac{1}{2}$   $\times$  10  $\frac{1}{2}$  If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 198  $\frac{1}{2}$  Material of stays Steel Area at

smallest part 2-03  $\frac{1}{2}$  Area supported by each stay 87-5  $\frac{1}{2}$  Working pressure by rules 209 End plates in steam space: Material Steel Thickness 1  $\frac{3}{8}$

Pitch of stays 25  $\frac{1}{8}$   $\times$  8  $\frac{3}{4}$  How are stays secured D.N. & W. Working pressure by rules 182 Material of stays Steel Area at smallest part 9-824  $\frac{1}{2}$

Area supported by each stay 25  $\frac{1}{8}$   $\times$  18  $\frac{3}{4}$  Working pressure by rules 235 Material of Front plates at bottom Steel Thickness 1  $\frac{1}{16}$  Material of

Lower back plate Steel Thickness 1  $\frac{1}{16}$  Greatest pitch of stays 14  $\times$  10 Working pressure of plate by rules 244 Diameter of tubes 3  $\frac{1}{2}$

Pitch of tubes 4  $\frac{3}{8}$   $\times$  4  $\frac{1}{4}$  Material of tube plates Steel Thickness: Front 1  $\frac{1}{16}$  Back 1  $\frac{1}{16}$  Mean pitch of stays 9-72  $\frac{1}{2}$  Pitch across wide

water spaces 14  $\frac{1}{2}$  Working pressures by rules 186  $\frac{1}{2}$  Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 9  $\frac{1}{2}$   $\times$  13  $\frac{1}{2}$   $\times$  2 Length as per rule 32  $\frac{1}{2}$  Distance apart 10  $\frac{1}{2}$  Number and pitch of Stays in each 3 @ 7  $\frac{1}{2}$

Working pressure by rules 212 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 Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test 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

The foregoing is a correct description

K. J. Young



Is the approved plan of boiler forwarded herewith

Total No. of visits

Dates of Survey During progress of work in shops --  
while During erection on board vessel --  
building

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

These boilers have been constructed in accordance with the approved plans and the requirements of the Rules, and under the usual conditions of survey are testing. The materials and workmanship are good. The boilers have been satisfactorily fitted on board.

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

Committee's Minute

FRI. MAY. 23 1924

Assigned

L. Young & Co.  
Engineers, Surveyors to Lloyd's Register of Shipping.