

REPORT ON BOILERS.

No. 4985.

26 OCT 1925

Received at London Office

Date of writing Report Sep. 18th 1925 When handed in at Local Office 19 Port of Kobe
No. in Survey held at Osaka Date, First Survey Jan'y 10th Last Survey 26th Aug. 1925
Reg. Book. on the S.S. "TSUKUSHI MARU." (Number of Visits 22.) Gross Tons Net
Master Osaka Built at Osaka By whom built Osaka Iron Works Ltd When built 1925-8
Engines made at Osaka By whom made Osaka Iron Works Ltd when made 1925-8
Boilers made at Osaka By whom made Osaka Iron Works Ltd when made 1925-8
Registered Horse Power 1500. Owners KANIMA SHOGYO KABUSHIKI KAISHA Port belonging to SHIMANOSEKI.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—Manufacturers of Steel Yawata Steel Co.
(Letter for record 8) Total Heating Surface of Boilers 3011 ϕ Is forced draft fitted Yes No. and Description of Boilers Two Single Ended Multitubular Working Pressure 200 ϕ Tested by hydraulic pressure to 350 ϕ Date of test 22-7-25
No. of Certificate 707 Can each boiler be worked separately Yes Area of fire grate in each boiler 42.6 ϕ No. and Description of safety valves to each boiler 2 spring loaded Area of each valve 4.91 ϕ Pressure to which they are adjusted 205 ϕ
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 16" Mean dia. of boilers 12'-3" Length 11'-0"
Material of shell plates O.H. Steel Thickness $\frac{1}{8}$ " Range of tensile strength 28-32 Tm Are the shell plates welded or flanged No
Descrip. of riveting i. cir. seams D.R. Lap. long. seams T.R. D.B.S. Diameter of rivet holes in long. seams $1\frac{1}{16}$ " Pitch of rivets $8\frac{1}{4}$ "
Lap of plates or width of butt straps $17\frac{3}{4}$ " Per centages of strength of longitudinal joint 91.6 Working pressure of shell by rules 201 ϕ Size of manhole in shell 16" x 12" Size of compensating ring $35\frac{3}{4}$ " x $31\frac{3}{4}$ " x $1\frac{1}{8}$ " No. and Description of Furnaces in each boiler 2 Morrison Material O.H. Steel Outside diameter 48 ϕ Length of plain part 4' 3" Thickness of plates oven } 43" bottom } 64"
Description of longitudinal joint weld No. of strengthening rings ✓ Working pressure of furnace by the rules 215 ϕ Combustion chamber plates: Material O.H. Steel Thickness: Sides $\frac{5}{8}$ " Back $\frac{5}{8}$ " Top $\frac{5}{8}$ " Bottom $\frac{7}{8}$ " Pitch of stays to ditto: Sides $7\frac{1}{2}$ " x 7" Back 8" x 8"
Top 7' x 8 $\frac{1}{2}$ " If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 211 ϕ Material of stays O.H. Steel Diameter at smallest part 1.48" Area supported by each stay 64 ϕ Working pressure by rules 238 ϕ End plates in steam space: Material O.H. Steel Thickness $1\frac{1}{2}$ "
Pitch of stays $17\frac{1}{2}$ " x $16\frac{1}{2}$ " How are stays secured Nuts Working pressure by rules 247 ϕ Material of stays O.H. Steel Diameter at smallest part 2.78"
Area supported by each stay 280.5 ϕ Working pressure by rules 239 ϕ Material of Front plates at bottom O.H. Steel Thickness $\frac{7}{8}$ " Material of Lower back plate O.H. Steel Thickness $\frac{1}{16}$ " Greatest pitch of stays 14" x 8" Working pressure of plate by rules 206 ϕ Diameter of tubes 3" O.D.
Pitch of tubes $4\frac{1}{16}$ " x $4\frac{1}{8}$ " Material of tube plates O.H. Steel Thickness: Front $\frac{7}{8}$ " Back $\frac{1}{16}$ " Mean pitch of stays 9.515 Pitch across wide water spaces $13\frac{1}{2}$ " in $\frac{7}{8}$ " double Working pressures by rules 240 ϕ Girders to Chamber tops: Material O.H. Steel Depth and thickness of girder at centre $8\frac{1}{2}$ " x $2\frac{1}{8}$ " Length as per rule 30 $\frac{1}{16}$ " Distance apart 8 $\frac{1}{2}$ " Number and pitch of Stays in each 3 at 7"
Working pressure by rules 236 ϕ Superheater or Steam chest: how connected to boiler ✓ 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 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 ✓ Are they fitted with easing gear ✓

The foregoing is a correct description,

Y. H. Buchanan Manufacturer.

Dates of Survey During progress of Jan'y 14th, 17, 20, 23, Feb'y 23, March 13, 25, April 14, 16, 27, 29. Is the approved plan of boiler forwarded to the Registrar Yes
while building During erection on Aug. 13, 20, 24. Total No. of visits 22.

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

These Boilers have been constructed under special survey in accordance with the Rules & Approved Plans. Materials have been tested found efficient & the workmanship is good. They have now been satisfactorily fitted on board & tested under full steam pressure.

Survey Fee ... £ } SEE MACH & REPORT } When applied for. 19
Travelling Expenses (if any) £ } When received. 19

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

Committee's Minute

FRI. 30 OCT 1925

Assigned



Lloyd's Register Foundation

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