

# REPORT ON BOILERS.

No. 4656.

Received at London Office

12 JAN 1925

Date of writing Report 19-11-1924 When handed in at Local Office 19 Port of

No. in Survey held at Tama (Uno) Date, First Survey Jan 18<sup>th</sup> Last Survey Nov: 19<sup>th</sup> 1924  
 Reg. Book. on the Steel Screw Steamer "AKIBASAN MARU" (Number of Visits 26) Gross 4670.04 Tons Net 2907.79

Master Built at Tama By whom built Mitsui Bussan Kaisha Ltd When built 1924-11  
 Engines made at Tama By whom made Mitsui Bussan Kaisha Ltd When made 1924-11  
 Boilers made at " By whom made do do When made 1924-11  
 Registered Horse Power Owners Mitsui Bussan Kaisha Ltd Port belonging to Kobe

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel North Steel Co. Alan Wood Steel Co & Kawasaki Dockyard Co.

(Letter for record S) Total Heating Surface of Boilers 5175.34 Is forced draft fitted Yes No. and Description of Boilers 2 Single ended cylindrical Working Pressure 200 lbs Tested by hydraulic pressure to 350 lbs Date of test 15-9-24

No. of Certificate 570 Can each boiler be worked separately Yes Area of fire grate in each boiler 60 sq ft No. and Description of safety valves to each boiler 1-Lewis, spring loaded. Area of each valve 4" dia = 12.566 sq in Pressure to which they are adjusted 205 lbs

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 15" Mean dia. of boilers 14'-6" Length 11'-6" mean

Material of shell plates O.H. Steel Thickness 1 3/8" Range of tensile strength 28/32 Tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R. LAP long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 9 9/16"

Lap of plates or width of butt straps 21" Per centages of strength of longitudinal joint rivets 85% Com. 86.7% Working pressure of shell by rules 205.5 lbs Size of manhole in shell 16x12" Size of compensating ring 35 1/2 x 31 1/2 x 1 5/16" No. and Description of Furnaces in each boiler 3 Morrison Cor: Material Steel Outside diameter 41 3/16" Length of plain part top 19" bottom 32" Thickness of plates crown 19" bottom 32"

Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 210 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16" Pitch of stays to ditto: Sides 6 3/4 x 10 3/4" Back 7 1/6 x 9"

Top 9 x 8 3/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 203 lbs. Material of stays Steel Area at smallest part 2.03 sq ft Area supported by each stay 78.75 sq ft Working pressure by rules 231 lbs End plates in steam space: Material Steel Thickness 1 1/4"

Pitch of stays 17 1/2 x 19" How are stays secured D Nut Working pressure by rules 219 lbs Material of stays Steel Area at smallest part 7.55 sq ft

Area supported by each stay 332.5 sq ft Working pressure by rules 232.5 lbs Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 1/16" Greatest pitch of stays 13 1/2 x 9" Working pressure of plate by rules Diameter of tubes 3" O.D.

Pitch of tubes 4 1/4 x 4 1/8" Material of tube plates Steel Thickness: Front 13/16" Back 3/4" Mean pitch of stays 8 3/8" Pitch across wide water spaces 13 1/2" Working pressures by rules 221 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 x 15 1/8" Length as per rule 29 1/4" Distance apart 8 3/4" Number and pitch of Stays in each 2 @ 9"

Working pressure by rules 301 lbs 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,  
*J. Buchanan* Manufacturer.

Dates of Survey } During progress of work in shops - - - Jan 18, 26, Feb 13, March 1, 5, April 15, May 23-31. Is the approved plan of boiler forwarded herewith YES ✓  
 while building } During erection on board vessel - - - June 6, 24, July 3, 13, 18, 25, Aug 4, 9, 18, 25, Sep 25, -22 Total No. of visits 26  
 Oct 7, 9, 27, Nov 10, 11, 19.

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

See Machinery report.

Survey Fee ... £ SEE MACHY RPT When applied for, Do 19

Travelling Expenses (if any) £ " HULL " : ) When received, Do 19

Committee's Minute  
 Assigned



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