

REPORT ON BOILERS.

No. 6426

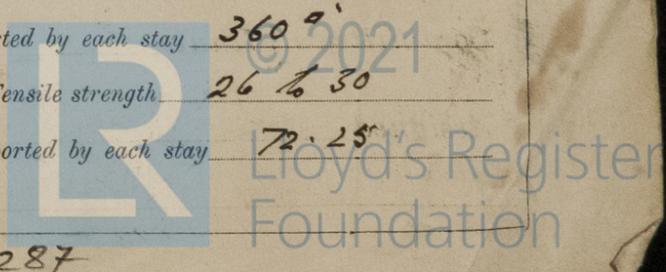
Received at London Office 26 MAR 1929

Date of writing Report 20th Feb. 1929 When handed in at Local Office 1929 Port of Kobe
 No. in Survey held at Osaka Date, First Survey 2nd Oct. 1928 Last Survey 14th Feb. 1929
 on the Steel single screw steamer "BUJUN MARU" (Number of Visits 16) Tons {Gross 4735
 Net 2660
 Built at Osaka By whom built Osaka Iron Works Ltd. Yard No. 1124 When built 1929
 Boilers made at Osaka By whom made Osaka Iron Works Ltd. Engine No. 1124 When made 1929
 Boilers made at do By whom made do. Boiler No. 1124 When made 1929
 Indicated Horse Power 346 Owners Dairen Keen Kabushiki Kaisha Port belonging to Dairen

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mitsui Bussan Kaisha Ltd. & G. Haerde Verein Haerde (Letter for Record S)
 Total Heating Surface of Boilers 5002 sq ft Is forced draught fitted yes Coal or Oil fired coal
 Name and Description of Boilers Two S.E. Working Pressure 200
 Tested by hydraulic pressure to 350 Date of test 14.1.29 No. of Certificate ✓ Can each boiler be worked separately yes
 Area of Firegrate in each Boiler 57.75 sq ft No. and Description of safety valves to each boiler 2 spring loaded
 Area of each set of valves per boiler {per Rule 13.75 (14.5)
 as fitted 16.58 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 14" Is oil fuel carried in the double bottom under boilers ✓
 Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated no
 Largest internal dia. of boilers 15'-0" Length 11'-6" Shell plates: Material steel Tensile strength 28 to 32
 Thickness 1 7/16" Are the shell plates welded or flanged flanged Description of riveting: circ. seams {end double riveted lap
 inter. ✓
 Long. seams D.B.S.T.R. Diameter of rivet holes in {circ. seams 1 9/16"
 long. seams 1 7/16" Pitch of rivets {4 7/8"
10"
 Percentage of strength of circ. end seams {plate 62.2
 rivets 53.4 Percentage of strength of circ. intermediate seam {plate ✓
 rivets ✓
 Percentage of strength of longitudinal joint {plate 85.615
 rivets 87.2 Working pressure of shell by Rules 212
 combined 88.65
 Thickness of butt straps {outer 1 1/8" ✓
 inner 1 1/4" ✓ No. and Description of Furnaces in each Boiler 3 Morrison Type 30%
 Material steel Tensile strength 26 to 30 Smallest outside diameter 3'-9 5/16"
 Length of plain part {top ✓
 bottom ✓ Thickness of plates {crown 2 1/2" ✓
 bottom 3 1/2" ✓ Description of longitudinal joint welded
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 212
 Stays in steam space: Material steel Tensile strength 26 to 30 Thickness 1 5/8" ✓ Pitch of stays 20" x 18" ✓
 How are stays secured nuts & washers Working pressure by Rules 234
 Stays in water space: Material {front steel
 back steel Tensile strength {26 to 30
26 to 30 Thickness {7/8" ✓
1 3/16" ✓
 Pitch of stay tubes in nests 10" ✓ Pitch across wide water spaces 13 3/4" ✓ Working pressure {front 221.5
 back 238
 Stays to combustion chamber tops: Material steel Tensile strength 28 to 32 Depth and thickness of girder
 centre 9 1/2" x 7/8" ✓ Length as per Rule 32.75" ✓ Distance apart 9" ✓ No. and pitch of stays
 each 3 @ 8" ✓ Working pressure by Rules 258 Combustion chamber plates: Material steel
 Tensile strength 26 to 30 Thickness: Sides 1/6" ✓ Back 1/6" ✓ Top 1/6" ✓ Bottom 7/8" ✓
 Pitch of stays to ditto: Sides 8 1/2" x 8" ✓ Back 8 1/2" x 8 1/2" ✓ Top 8" x 9" ✓ Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 225 Front plate at bottom: Material steel Tensile strength 26 to 30
 Thickness 7/8" ✓ Lower back plate: Material steel Tensile strength 26 to 30 Thickness 7/8" ✓
 Pitch of stays at wide water space 13 3/4" x 8 1/2" ✓ Are stays fitted with nuts or riveted over nuts ✓
 Working Pressure 263 Main stays: Material steel Tensile strength 28 to 32
 Diameter {At body of stay, 3 1/2" ✓
 or
 Over threads ✓ No. of threads per inch 6 ✓ Area supported by each stay 360 sq in
 Working pressure by Rules 263 Screw stays: Material steel Tensile strength 26 to 30
 Diameter {At turned off part, 1 3/4" + 1 7/8" ✓
 or
 Over threads ✓ No. of threads per inch 9 ✓ Area supported by each stay 72.25 sq in

2362
4724



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Date of writing

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Working pressure by Rules 251 Are the stays drilled at the outer ends Margin stays: Diameter ^{At turned off part,} 1 7/8 ^{or} ^{Over threads}

No. of stays per inch 9 Area supported by each stay 102" Working pressure by Rules 204.5

Tube: Material steel External diameter ^{Plain} 3 ^{Stay} 3 1/4 Thickness 3/8 x 5/16 No. of threads per inch 9

Pitch of tubes 4 1/4 x 4 1/8 Working pressure by Rules 241.8 Manhole compensation: Size of opening

shell plate 18 x 22 Section of compensating ring 22.25 x 1.4375 No. of rivets and diameter of rivet holes 42 @ 1 3/16

Outer row rivet pitch at ends 9 5/8 Depth of flange if manhole flanged (3 3/4) Steam Dome: Material -

Tensile strength - Thickness of shell - Description of longitudinal joint -

Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint ^{Plate} - ^{Rivets} -

Internal diameter - Working pressure by Rules - Thickness of crown - No. and diameter of stays -

Inner radius of crown - Working pressure by Rules -

How connected to shell - Size of doubling plate under dome - Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell -

Type of Superheater - Manufacturers of ^{Tubes} - ^{Steel castings} -

Number of elements - Material of tubes - Internal diameter and thickness of tubes -

Material of headers - Tensile strength - Thickness - Can the superheater be shut off and the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve - Are the safety valves fitted with easing gear Working pressure as per Rules - Pressure to which the safety valves are adjusted - Hydraulic test pressure -

tubes -, castings - and after assembly in place - Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes

The foregoing is a correct description,

[Signature] Manufacturer

Dates of Survey ¹⁹²⁸ During progress of work in shops Oct. 2, Nov. 21, Dec. 1, 3, 4, 5, 10, 18, 28 ¹⁹²⁹ Jan. 9, 14, 16 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building ¹⁹²⁸ During erection on board vessel Jan. 26, Feb. 4, 8, 14 Total No. of visits 16

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boilers have been constructed under special survey in accordance with the requirements of the Rules and approved plan and on completion were tested by hydraulic pressure to 350 lbs per sq inch and found to be tight and sound. The materials and workmanship are good and after being efficiently installed in the vessel the safety valves were adjusted under steam to 200 lbs per sq inch

Survey Fee £ : : } When applied for, 192

Travelling Expenses (if any) £ : : } When received, 192

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 12 APR 1929

Assigned sa minute on Kobe Rpt 6426

