

REPORT ON BOILERS.

No. 2170

10 AUG 1954

Received at London Office

Date of writing Report 19... When handed in at Local Office 19... Port of KOBE

No. in Reg. Book 366975 on the M.S. "INUISAN MARU" Date, First Survey 10th Dec., 1953 Last Survey 31st May, 1954

(Number of Visits 11) Tons { Gross 7197.46 Net 4118.24

Built at Osaka By whom built Fujinagata Shipbuilding Co., Ltd. Yard No. 31 When built 1954 6mo.

Engines made at Tanano By whom made Mitsui S.B. & Eng., Co., Ltd. Engine No. 517 When made 1954 6mo.

Boilers made at Kobe By whom made Mitsubishi H.I. Reorganized Ltd. Boiler No. 122 When made 1944 4mo. WHEN FITTED 1954 6mo.

MN as per Rule Owners Inui Kisen K.K. Port belonging to Kobe

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Boiler not made under survey. Material test Certificates not available.

Total Heating Surface of Boilers 245.6M² Of Superheaters none fitted

Total for Register Book 245.6M² Is forced draught fitted Yes Coal or Oil fired Oil ✓

No. and Description of Boilers One-Howden-Johnson cylindrical multitubular boiler ✓ Working Pressure 10kgs/cm² ✓

Tested by hydraulic pressure to 18.5kg/cm² Date of test 15-3-54 No. of Certificate - Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves One-110mm dia. Double spring ordinary safety V.

Area of each set of valves per boiler { per Rule 8.980mm² as fitted 9.503mm² Pressure to which they are adjusted 10kg/cm² ✓ 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 - Is oil fuel carried in the double bottom under boilers -

Smallest distance between shell of boiler and tank top plating 5.320mm Is the bottom of the boiler insulated Yes ✓

Largest internal dia. of boilers 4600mm ✓ Length 2654mm ✓ Shell plates: Material Boiler plate ✓ Tensile strength -

If fusion welded, state name of welding Firm - Have all the requirements of the Rules for Class I vessels been complied with - Thickness 5mm ✓ Are the shell plates welded or flanged No ✓ Description of riveting: circ. seams { end double rivet lap inter joint ✓ long seams double butt strap 3 ✓ raw rivet Diameter of rivet holes in { circ. seams 41.5mm ✓ long seams 43.5mm ✓ Pitch of rivets { 105.74mm ✓ 293mm ✓

Percentage of strength of circ. end seams { plate 60.7 rivets 45.6 Percentage of strength of circ. intermediate seam { plate 85.0 rivets 84.5 combined 86.5

Percentage of strength of longitudinal joint { plate 85.0 rivets 84.5 combined 86.5

Thickness of butt straps { outer 36mm ✓ inner 38mm ✓ No. and Description of Furnaces in each Boiler 3 x Morison type corrugated ✓

Material Boiler plate ✓ Tensile strength - Smallest outside diameter 1,136mm ✓

Length of plain part { top 200mm bottom 200mm Thickness of plates 18mm ✓ Description of longitudinal joint fusion welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom none fitted

End plates in steam space: Material Boiler plate ✓ Tensile strength - Thickness 32mm ✓ Pitch of stays 400mm x 420mm ✓

How are stays secured Nuts and washers both sides of plate ✓

Tube plates: Material { front Boiler plate ✓ back Boiler plate ✓ Tensile strength - Thickness { 32mm x 27mm ✓ 32mm x 27mm ✓

Mean pitch of stay tubes in nests 229mm Pitch across wide water spaces 320mm ✓

Girders to combustion chamber tops: Material - Tensile strength - Depth and thickness of girder at centre - Length as per Rule - Distance apart - No. and pitch of stays in each -

Combustion chamber plates: Material - Tensile strength - Thickness: Sides - Back - Top - Bottom -

Pitch of stays to ditto: Sides - Back - Top - Are stays fitted with nuts or riveted over -

Front plate at bottom: Material Boiler plate ✓ Tensile strength - Thickness 27mm ✓ Lower back plate: Material Boiler plate ✓ Tensile strength - Thickness 27mm ✓

Pitch of stays at wide water space - Are stays fitted with nuts or riveted over -

Main stays: Material Steel bar ✓ Tensile strength - Diameter { At body of stay 80mm ✓ or 90mm ✓ No. of threads per inch 6 ✓

Screw stays: Material - Tensile strength - Diameter { At turned off part - or - No. of threads per inch -

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Are the stays drilled at the outer ends. - Margin stays: Diameter { At turned off part, - or Over threads. -
No. of threads per inch. -
Tubes: Material Boiler tube External diameter { Plain 70mm Thickness 4mm No. of threads per inch 9
Stay 70mm 9mm
Pitch of tubes 100mm x 98mm Manhole compensation: Size of opening in
shell plate 480mm x 600mm Section of compensating ring 27.225mm2 No. of rivets and diameter of rivet holes 36 x 43.59mm
Outer row rivet pitch at ends 250mm Depth of flange if manhole flanged 90mm 105 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 - Thickness of crown - No. and diameter of
stays - Inner radius of crown -
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 None fitted

Manufacturers of

Tubes
Steel forgings
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
Pressure to which the safety valves are adjusted Hydraulic test pressure:
tubes forgings and 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 22 inclusive for boilers been complied with -

The foregoing is a correct description,

M. M. Briggs

Manufacturer

App. date

Dates of Survey while building { During progress of work in shops - - 1953, Dec. 10 1954, Jan. 12, 19
Feb. 8, 15, Mar. 11, 15, 16 Are the approved plans of boiler and superheater forwarded herewith 28-10-53
(If not state date of approval.)
During erection on board vessel - - - 1954 May 21, 29, 31 Total No. of visits 11

Is this Boiler a duplicate of a previous case. No If so, state Vessel's name and Report No. -

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

Boiler not built under the supervisions of the Society's Surveyor. Boiler opened up, examined,
found or placed in good condition, tested by hydraulic pressure and found tight and sound, scantlings
checked and found to be in accordance with the approved plan and boiler installed on board vessel in
accordance with the Rules, examined under steam and found satisfactory. Safety valves adjusted as stat
above.

Survey Fee ... £ 20,000

Travelling Expenses (if any) £ See Rpt. 1

When applied for JUL. 26. 1954

When received

Engineer Surveyor to Lloyd's Register of Shipping.

TUESDAY 14 SEP 1954

Committee's Minute

Assigned

See Rpt. 46



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