

REPORT ON BOILERS.

No. 56A, 605
965

Received at London Office 18 MAR 1952

Date of writing Report 29-1-1952 When handed in at Local Office 19 Port of K O B E

Survey held at Osaka, Japan Date, First Survey 21st June, 1951 Last Survey 14th Sept. 1951

No. in 1 Book. on the Single Screw Motor Vessel "KENRYU MARU" (Number of Visits 9) Tons { Gross 4978.61 Net 3284.36

Boiler made at Osaka, Japan By whom built Fujinagata Shipbuilding Co., Ltd. Yard No. S 25 When built Sept. 1951

Engines made at Tamano, Japan By whom made Mitsui Shipbuilding & Engineering Co., Ltd. Engine No. 384 When made Feb. 1951

Boilers made at Osaka, Japan By whom made Fujinagata Shipbuilding Co., Ltd. Boiler No. 112 When made July 1951

Owners Inui Kisen Kabushiki Kaisha Port belonging to K O B E

VERTICAL BOILER.

Boiler made at Osaka By whom made Fujinagata Shipbuilding Co., Ltd. Boiler No. 112 When made July 1951 Where fixed Fujinagata Works

Manufacturers of Steel Tubes: Shin Fuso Metal Industries, Ltd. Steel Tube Works, Amagasaki
Plates: Fukiai Plant of the Kawasaki Steel Corporation

Total Heating Surface of Boiler 25.3M² (Oil) 27M² (Exh. Gas) Is forced draught fitted No Coal or Oil fired Oil & Exhaust Gas

Description of Boilers 1 Cochran Type Boiler Working Pressure 7 kg/cm²

Tested by hydraulic pressure to 14 kg/cm² Date of test 30th July, 1951 No. of Certificate B 242

Area of fire grate in each Boiler --- No. and description of safety valves to each boiler 1 set of double spring load safety valve

Area of each set of valves per boiler { per Rule 39.513 cm² as fitted 47.516 cm² Pressure to which they are adjusted 7.21 kg/cm² Are they fitted with easing gear Yes

Is it possible whether steam from main boilers can enter the donkey boiler --- Smallest distance between boiler or uptake and bunkers ---

Is there any woodwork --- Is oil fuel carried in the double bottom under boiler --- Smallest distance between base of boiler and tank top plating ---

Is the base of the boiler insulated --- Largest internal dia. of boiler 1800 mm Height 5000 mm

Shell plates: Material O. H. Steel Tensile strength 29.3 - 30.7 T/" Thickness 13 mm

Are the shell plates welded or flanged Riveted If fusion welded, state name of welding firm ---

Do all the requirements of the Rules for Class I vessels been complied with --- Description of riveting: circ. seams { end Lap joint inter Double riveting

Are there any g. seams Double riveting Dia. of rivet holes in { circ. seams 23 mm Pitch of rivets { 45.51 mm Percentage of strength of circ. seams { plate 49.46% rivets 45%

Are there any longitudinal joint { plate 66% rivets 64.7% Thickness of butt straps { outer --- inner --- Shell Crown: Whether complete hemisphere, dished partial

Are there any spherical, or flat Dished partial spherical Material O. H. Steel Tensile strength 28.4 T/" Thickness 16 mm

Are there any r spaces 1.600 mm Description of Furnace: Plain, spherical, or dished crown Spherical crown Material O. H. Steel

Are there any 29.3 T/" Thickness 13 mm External diameter { top --- bottom 1.500 mm Length as per Rule ---

Are there any h of support stays circumferentially --- and vertically --- Are stays fitted with nuts or riveted over ---

Are there any --- Radius of spherical or dished furnace crown 737 mm

Are there any 25 mm Tensile Strength 27 T/" Diameter as per Rule { D 1800 mm d 1500 mm

Are there any --- Tensile strength --- Thickness of top plate ---

Are there any --- Thickness of back plate --- Diameter if circular ---

Are there any --- Pitch of stays ---

Are there any stays fitted with nuts or riveted over --- Diameter of stays over thread ---

Are there any Plates: Material { front O. H. Steel Tensile strength { 28.7 T/" Thickness { 22 mm Mean pitch of stay tubes in nests Oil 2453mm Exh. Gas 247.7mm

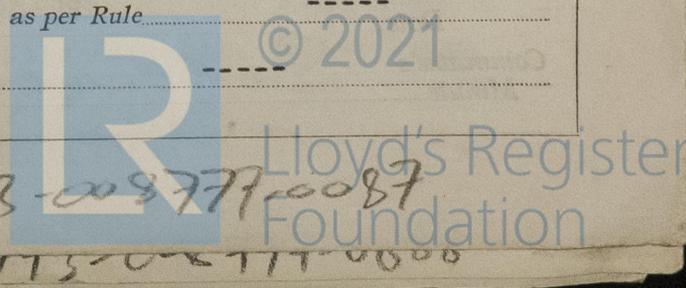
Are there any comprising shell, dia. as per Rule { front --- back --- Pitch in outer vertical rows { --- Dia. of tube holes FRONT { stay --- plain --- BACK { stay --- plain ---

Are there any --- Does each alternate tube in outer vertical rows a stay tube Yes

Are there any --- Tensile strength ---

Are there any --- Length as per Rule ---

Are there any --- No. and pitch of stays in each ---



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Crown Stays: Material ----- Tensile strength ----- Diameter { at body of stay -----
 or over threads -----
 No. of threads per inch ----- Screw Stays: Material ----- Tensile strength -----
 Diameter { at turned off part ----- No. of threads per inch ----- Are the stays drilled at the outer ends -----
 or over threads -----
 Tubes: Material O. H. Steel External diameter { plain 45 mm 60 mm Thickness { 3.5 mm 8 mm
 stay 45 mm 60 mm
 No. of threads per inch 9 for 45 mm ϕ Pitch of tubes 74.64mm x 70mm for 45mm ϕ , 87.08mm x 90mm for
10 for 60 mm ϕ Section of compensating ring 213-20) x 16 x 2 No. of rivets and diameters ma
 Manhole Compensation: Size of opening in shell plate 380^{mm} x 500^{mm} Ellipse Section of compensating ring 213-20) x 16 x 2 No. of rivets and diameters ma
 of rivet holes 48 x 20 mm ϕ Outer row rivet pitch at ends 60 mm Depth of flange if manhole flanged 85 mm of Sets
 Uptake: External diameter 822 mm Thickness of uptake plate 6 mm Set intended
 Cross Tubes: No. --- External diameters { --- Thickness of plates --- L ENGI
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes an indicate
 pressure

The foregoing is a correct description,
 Fujinagata Shipbuilding Co., Ltd. Osaka, Japan
J. Sasakura
 Managing Director

Dates of Survey while building { During progress of work in shops -- Jun. 21 Jul. 1, 7, 18, 30,
 Aug. 1, 27, 28
 During erection on board vessel --- Sept. 14
 Is the approved plan of boiler forwarded herewith 24th May
 (If not state date of approval.)
 Total No. of visits 9

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

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

The Donkey Boiler of this vessel has been constructed under
 Special Survey in accordance with the Rules, Approved plans and
 Secretary's letters.
 The workmanship and materials are sound and good.
 The Donkey Boiler has been examined under steam the safe
 values adjusted to 7.21 kg/cm² and found satisfactory.

Survey Fee ... £ 25,200 } When applied for 19
 Travelling Expenses (if any) £ (See Rpt. 4b) } When received 19

Shunji Monakura
 Engineer Surveyor to Lloyd's Register of Shipping

Date FRI. 30 MAY 1952
 Committee's Minute Su P. E. Mchysph

