

REPORT ON BOILERS.

No.

569,605

065

Received at London Office 18 MAR 1952

5b.

Survey held at Osaka, Japan Date, First Survey 21st June, 1951 Last Survey 14th Sept. 1951
 No. in 1 Book. (Number of Visits 9)
 on the Single Screw Motor Vessel "KENRYU MARU" Tons { Gross 4978.61
 Net 3284.36
 Built 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.

Made at Osaka By whom made Fujinagata Shipbuilding Co., Ltd. Boiler No. 112 When made July 1951 Where fixed Fujinagata Works
 Tubes: Shin Fuso Metal Industries, Ltd. Steel Tube Works, Amagasaki
 Plates: Fukiai Plant of the Kawasaki Steel Corporation
 Heating Surface of Boiler 25.3M² (Oil) 27M² (Exh. Gas) Is forced draught fitted No Coal or Oil fired Oil & Exhaust Gas
 and 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
1 set of double spring load safety valve
 Area of fire grate in each Boiler --- No. and description of safety valves to each boiler ---
 Area of each set of valves per boiler { per Rule 39.513 cm² Pressure to which they are adjusted 7.21 kg/cm² Are they fitted with easing gear Yes
 as fitted 47.516 cm²
 Is oil fuel carried in the double bottom under boiler --- Smallest distance between boiler or uptake and bunkers ---
 Is the base of the boiler insulated --- Largest internal dia. of boiler 1800 mm Height 5000 mm
 Material O. H. Steel Tensile strength 29.3 - 30.7 T/ Thickness 13 mm
 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
 Dia. of rivet holes in { circ. seams 23 mm Pitch of rivets { 45.51 mm Percentage of strength of circ. seams { plate 49.46 %
 long. seams 20 mm 58.93 mm rivets 45 %
 longitudinal joint { plate 66 % Thickness of butt straps { outer --- Shell Crown: Whether complete hemisphere, dished partial
 rivets 64.7 % inner ---
 combined ---
 Dished partial --- Material O. H. Steel Tensile strength 28.4 T/ Thickness 16 mm
 spherical, or flat spherical
 Description of Furnace: Plain, spherical, or dished crown Spherical crown Material O. H. Steel
 Tensile strength 29.3 T/ Thickness 13 mm External diameter { top --- Length as per Rule ---
 bottom 1.500 mm
 Are stays fitted with nuts or riveted over ---
 Radius of spherical or dished furnace crown 737 mm
 Diameter as per Rule { D 1800 mm
 d 1500 mm
 Thickness of top plate ---
 Thickness of back plate --- Diameter if circular ---
 Pitch of stays ---
 Diameter of stays over thread ---
 Plates: Material { front O.H. Steel Tensile strength { 28.7 T/ Thickness { 22 mm Mean pitch of stay tubes in nests Oil 2453mm
 back O.H. Steel 28.7 T/ 22 mm Exh. Gas 247.7mm
 comprising shell, dia. as per Rule { front --- Pitch in outer vertical rows { Dia. of tube holes FRONT { stay --- BACK { stay ---
 back --- plain --- plain ---
 Does alternate tube in outer vertical rows a stay tube Yes
 Material --- Tensile strength ---
 Length as per Rule ---
 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 -----
or -----
over threads ----- No. of threads per inch ----- Are the stays drilled at the outer ends -----
Tubes: Material 0. 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 60mm ϕ
10 for 60 mm ϕ Section of compensating ring 213-20) x 16 x 2
Manhole Compensation: Size of opening in shell plate 380 x 500 mm Ellipse No. of rivets and diameters 85 mm
of rivet holes 48 x 20 mm ϕ Outer row rivet pitch at ends 60 mm Depth of flange if manhole flanged 6 mm
Uptake: External diameter 822 mm Thickness of uptake plate 6 mm
Cross Tubes: No. --- External diameters { --- Thickness of plates ---
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

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

Dates of Survey { During progress of work in shops -- Jun. 21 Jul. 1, 7, 18, 30,
while building { During erection on board vessel --- Aug. 1, 27, 28
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 safety valves 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

J. Kume J. Morakura
Engineer Surveyor to Lloyd's Register of Shipping

FRI. 30 MAY 1952

Date
Committee's Minute
See P.E. mch. rpt.



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