

REPORT ON BOILERS.

No. FE-8937

Received at London Office

Date of writing Report 14th April, 1961 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Osaka, Japan Date, First Survey 14th January, 1961 Last Survey 1st April, 1961
g. Book.

(Number of Visits 15) Gross Tons Net

Built at Nagasaki, Japan By whom built Mitsubishi Shipbuilding & Eng. Co., Ltd.,
Nagasaki Works Yard No. 1561 When built

Engines made at By whom made Engine No. When made

Boilers made at Osaka, Japan By whom made Hirano Iron Works Co., Ltd. H-1492 Apr., 1961
Boiler No. When made

Owners Port belonging to

VERTICAL BOILER.

Manufactured at Osaka By whom made Hirano Iron Works Co., Ltd. Boiler No. 4, 1961 When made Where fixed

Manufacturers of Steel Plate:- The Yawata Iron & Steel Co., Ltd. Tubes:- Nippon Kokan K.K., Kawasaki Works

Total Heating Surface of Boiler 100 M² Is forced draught fitted Coal or Oil firedNo. and Description of Boilers One (1) Cochran Type Donkey Boiler Working Pressure 7 kg/cm²Tested by hydraulic pressure to 14 kg/cm² Date of test 1st April, 1961 No. of Certificate I-69707

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... Pressure to which they are adjusted... Are they fitted with easing gear...
as fitted... }

State whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

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 2400 mm Height 6100 mm

Shell plates: Material Boiler Steel Tensile strength Upper 53.2 kg/mm² Middle 52.2 kg/mm² Lower 54.1 kg/mm² Thickness Upper 16 mm, Middle 18 mm, Lower 16 mm

Are the shell plates welded or flanged No If fusion welded, state name of welding firm

Have all the requirements of the Rules for Class I vessels been complied with Description of riveting: circ. seams { end Double zigzag
inter Double zigzag
outer 13 mm
inner 16 mm
Thickness of butt straps { outer 16 mm
inner 16 mm
Pitch of rivets { 26.5 mm
23 mm
88 mm
86.5 mm
Diameter of rivet holes in { circ. seams 26.5 mm
long. seams 23 mm

Double butt strap, Double zigzag

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Material Tensile strength 45.3 kg/mm² Thickness 23 mm

Radius 1900 mm Description of Furnace: Plain, spherical, or dished crown Spherical Material Boiler Steel

Tensile strength 46 kg/mm² Thickness 18 mm External diameter { top... Length as per Rule...
bottom... }

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 1038 mm

Thickness of Ogee Ring 28 mm Diameter as per Rule { D 2400 mm
d 2076 mm

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished Thickness of back plate Diameter if circular

Length as per Rule Pitch of stays

Are stays fitted with nuts or riveted over Diameter of stays over thread

Tube Plates: Material { front Boiler steel Tensile strength 47 kg/mm² Thickness 30 mm Mean pitch of stay tubes in nests 247.5 mm
back Boiler steel Tensile strength 47 kg/mm² Thickness 30 mmIf comprising shell, dia. as per Rule { front... Pitch in outer vertical rows 210 mm Dia. of tube holes FRONT stay 65 mm, plain 66 mm
back... 210 mm BACK stay 70 mm, plain 66 mm

Is each alternate tube in outer vertical rows a stay tube Yes

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

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 O.H. Steel External diameter { plain 65 mm stay 65 mm Thickness { 3.5 mm 8 mm

No. of threads per inch 9 Pitch of tubes 95 x 105 mm

Manhole Compensation: Size of opening in shell plate 305 x 405 mm Section of compensating ring - No. of rivets and diameter -

of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 85 mm

Uptake: External diameter - Thickness of uptake plate -

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,

T. Ueda Manufacturer HIRANO IRON WORKS CO., LTD.

Dates of Survey while building { During progress of work in shops - - Mar 7, 8, 11, 13, 14, 23, 25, 29 Apr. 1, 3 Is the approved plan of boiler forwarded herewith 8th February, 1961 (If not state date of approval.) Total No. of visits 15

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Ship No. 1506, 1509, 1527, 1532, 1560

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

The Material and workmanship are sound and good.

The boiler was examined under hydraulic pressure of 14 kg/cm2 and found satisfactory.

Description	Roll No.	Charge No.	Name of Maker
Shell Crown	R 3240	T 63966	The Yawata Iron & Steel Co.
Upper Shell	R 2913	T 63844	do.
Middle Shell	R 2910 R 2911	T 63844	do.
Lower Shell	R 665	T 63592	do.
Tube Plate (Front)	R 1746	T 62182	do.
" (Back)	R 1745	T 62182	do.
Furnace Crown	R 3392	T 63966	do.
Ogee - ring	R 3238	T 63966	do.
Inner butt strap	R 2914	T 63844	do.
Outer butt strap	R 2915 R 2916	T 63844	do.

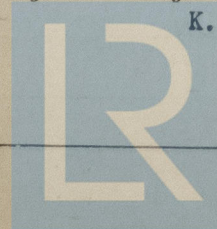
Survey Fee ... £ 30,950.- When applied for APR 25 1961

Travelling Expenses (if any) £ 3,000.- When received 19

Date FRIDAY -5 JAN 1962

Committee's Minute Su Nag 1130

K. Tabuchi Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation