

REPORT ON BOILERS.

30 AUG 1962

Received at London Office

Date of writing Report 6th March, 1962 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Innoshima & Osaka Date, First Survey 1st Nov., 1961 Last Survey 20th June, 1962

Reg. Book. on the m.v. "OKHOTSK" (Number of Visits 23) Gross 11,105 Tons Net

Built at Osaka, Japan By whom built Hitachi Shipbuilding & Eng.Co.,Ltd., Sakurajima Shipyard Yard No. 3923 When built 7, 1962

Engines made at Sakurajima, Osaka By whom made do. Engine No. 2151 When made 7, 1962

Boilers made at Innoshima By whom made Hitachi Shipbuilding & Eng.Co.,Ltd., Innoshima Shipyard Boiler No. 561 562 When made 2, 1962

Owners V/O "Sudoimport" Moscow, U.S.S.R. Port belonging to Vladivostok

VERTICAL BOILER.

Made at Innoshima By whom made Hitachi Shipbuilding & Eng.Co.,Ltd., Innoshima Shipyard Boiler No. 561 562 When made 2, 1962 Where fixed Osaka, Japan

Manufacturers of Steel Plate: Yawata Iron & Steel Co.,Ltd., Yawata. Tube: Yawata Steel Tube Co.,Ltd., Tokyo Works.

Total Heating Surface of each Boiler 61.6 sq. meter Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers Two (2) Vertical Cochran Type Boiler Working Pressure 7 kg/cm²

Tested by hydraulic pressure to 14 kg/cm² Date of test 28th February, 1962 No. of Certificate I- 77026

Area of fire grate in each Boiler As approved. No. and description of safety valves to each boiler One(1) set of Improved high lift duplex type

Area of each set of valves per boiler 5655 mm² Pressure to which they are adjusted 7.2 kg/cm² Are they fitted with easing gear Yes

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

or woodwork 450 mm Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

6500 mm Is the base of the boiler insulated No Largest internal dia. of boiler 2000 mm Height 4175mm

Shell plates: Material Boiler Steel Tensile strength 45 - 47 kg/mm² Thickness 14 mm

Are the shell plates welded or flanged Welded If fusion welded, state name of welding firm Innoshima Shipyard, Hitachi S.B. & Eng.Co.,Ltd.

Have all the requirements of the Rules for Class I vessels been complied with Yes Description of riveting: circ. seams end. Double Zigzag

long. seams - Dia. of rivet holes in circ. seams 23.2 mm Pitch of rivets 70mm Thickness of butt straps outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Boiler Steel Tensile strength 44 kg/mm² Thickness 18mm

Radius 1600 mm Description of Furnace: Spherical Material Boiler Steel

Tensile strength 46 - 47 kg/mm² Thickness 15 mm External diameter top 1750mm bottom 2000mm Length as per Rule

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 815 mm

Thickness of Ogee Ring 21 mm Diameter as per Rule D 2000 mm d 1760mm

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 back Boiler Steel Tensile strength 46 kg/mm² 46 kg/mm² Thickness 25mm 25mm Mean pitch of stay tubes in nests 308 mm

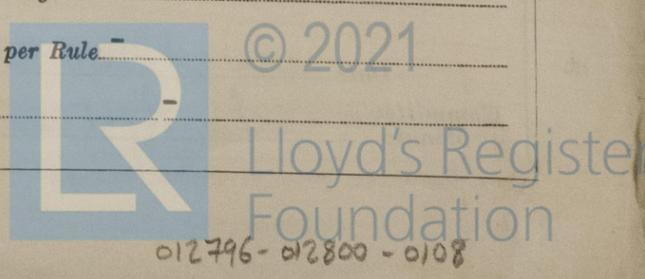
If comprising shell, dia. as per Rule front - back - Pitch in outer vertical rows 190mm 190mm Dia. of tube holes FRONT stay 67.6mm plain 67.6mm BACK stay 65.6mm plate 65.6mm

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 -



012796-012800-0108

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 65mm ✓ stay 65mm ✓ Thickness { 3.5mm 8.0mm

No. of threads per inch - Pitch of tubes 88mm x 95mm ✓

Manhole Compensation: Size of opening in shell plate 455mm x 355mm Section of compensating ring 1941.36 mm² No. of rivets and diameter

of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 56mm

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,

Hideo Fukuda Manufacturer.
Director & Yard Manager

Dates of Survey while building { During progress of work in shops - - at Innoshima During erection on board vessel - - at Osaka }
1961: Nov. 1, Dec. 5, 8, 12, 22, 26, 27.
1962: Jan. 9, 16, 19, 23, 25, 26, 31 Feb. 1, 2, 8, 13, 21, 28 May 22, 25, June 20
Is the approved plan of boiler forwarded herewith 27-3-61 (If not state date of approval.)
Total No. of visits 23

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Ship No. 3921, 3922.

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

The boilers have been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters.

The material and workmanship are sound and good.

These boilers were examined under hydraulic test & found satisfactory.

The safety valves were adjusted under steam to 7 kg/cm² and an accumulation test held with satisfactory results.

Description of Steel Plate:

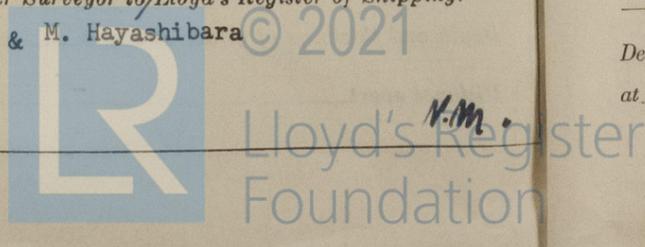
Where Used	Inspection No.	Charge No.	Name of Makers
Shell crown	R 9365, R6243	S300, T66481	Yawata Iron & Steel Co., Ltd.
Upper & Lower Shell	R5934, R5937	T 66759	"
Front tube plate	R 1615	T 66363	"
Back tube plate	R 1616	T 66363	"
Middle Shell	R 1605, R6123	T 66363	"
Furnace	R 1603	T 66363	"
Ogee ring	R 5939, R5941	T 66759	"

Survey Fee ... £ 23,850.- When applied for 19
Travelling Expenses (if any) £ : : When received 19

L.O. Christensen M. Hayashibara
Engineer Surveyor to Lloyd's Register of Shipping.

Date FRIDAY 21 SEP 1962

Committee's Minute See Rpt 46



7.9.62

ht

Rpt. 4c
Date of writing
Survey held
Name of Ship
(Or Contract)
Ship Built
Auxiliary
Total No.
INTERN
2 or 4 str
Fuel He
crankshafts
per engine
used for:
crankcase
Pistons
Com
SHAFT
inner edge
minimum
thickness
weights fu
Has each
governing
Date of
Particular
Port and
AUXILI
Arrangem
(A small
attached
No. of a
Material
turbines
Total No
per minu
Have th
attached
Date of
ELECT
For gen
The for
Is this
GENE
State of
and
been
Survey
Expen
Date
Decla
at