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REPORT ON BOILERS.

No. FE-6236

Received at London Office

of writing Report 24th Nov., 1958. When handed in at Local Office 19 Port of KOBE

No. in Survey held at Osaka Date, First Survey 15th Sept., 1958 Last Survey 17th Nov., 1958.

Book. 15 (Kobe)

on the (Number of Visits.....) Tons { Gross..... Net.....

at By whom built Yard No. 203 When built

gines made at By whom made Engine No. When made

lers made at Osaka By whom made Osaka Boiler Mfg., Co., Ltd. Boiler No. 1454 When made 1958-11

as per Rule Owners Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Plates (Furnaces, Kawasaki Steel Corp., Fukiai Plant) Tubes (Toyo Kanbo Kogyo K.K.)

Others, Nippon Steel Works, Muroran Teikoku Kekan K.K.

total Heating Surface of Boilers 1717 ft² Of Superheaters None

al for Register Book 1717 ft² Is forced draught fitted Coal or Oil fired Oil

and Description of Boilers 1-Dry combustion multitubular type Working Pressure 142 p.s.i.

ted by hydraulic pressure to 263 p.s.i. Date of test 17-11-58 No. of Certificate I-53475 Can each boiler be worked separately -

ea of Firegrate in each Boiler No. and Description of safety valves to each boiler

ea of each set of valves per boiler { per Rule..... Pressure to which they are adjusted Are they fitted with easing gear

case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

allest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

allest distance between boilers or uptakes and bunkers or woodwork Is the bottom of the boiler insulated

gost internal dia. of boilers 12'-7 9/16" Length 7'-4 9/16" Shell plates: Material Boiler plate Tensile strength 48.2 - 49.0

usion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels

complied with - Thickness 31/32" Are the shell plates welded or flanged No Description of riveting: circ. seams Two raw, zigzag

Double butt strap, treble

seams riveted Diameter of rivet holes in { circ. seams 1 5/32" Pitch of rivets { 3"

long. seams 1 5/32" 7 13/32"

centage of strength of circ. end seams { plate 61.2% Percentage of strength of circ. intermediate seam { plate -

rivets 58.7% rivets -

centage of strength of longitudinal joint { plate 84.3% rivets 111.5% combined 90.9%

thickness of butt straps { outer 31/32" No. and Description of Furnaces in each Boiler Two corrugated furnaces (10 corrugations)

inner 31/32"

rial Boiler plate Tensile strength 48 - 49 kg/cm² Smallest outside diameter 3' - 6 25/32"

th of plain part { top Thickness of plates 9/16" Description of longitudinal joint Fusion welded

bottom

ensions of stiffening rings on furnace or a.c. bottom None

plates in steam space: Material Boiler plate Tensile strength 45.6 & 46.9 kg/mm² Thickness 31/32" Pitch of stays 16 27/32" x 13 25/32"

are stays secured Nuts and washers, both sides of plate

plates: Material { front Boiler plate Tensile strength 46.4 & 46.9 kg/mm² Thickness 31/32"

back Boiler plate Tensile strength 45.3 & 45.6 kg/mm² Thickness 31/32"

h of stay tubes in nests 7 7/8" x 7 11/16" Pitch across wide water spaces 13 13/16"

ers to combustion chamber tops: Material None Tensile strength Depth and thickness of girder

ure Length as per Rule Distances apart No. and pitch of stays

Combustion chamber plates: Material None

Strength Thickness: Sides Back Top Bottom

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

plate at bottom: Material Boiler plate Tensile strength 46.4 kg/mm²

less 31/32" Lower back plate: Material Boiler plate Tensile strength 45.3 kg/mm² Thickness 31/32"

of stays at wide water space Only 1 stay 2 3/8" Dia. Are stays fitted with nuts or riveted over with nuts.

9 YOK stays: Material Rolled Steel Bar Tensile strength 50.1 kg/cm²

At body of stay 2 9/16" No. of threads per inch 6

Over threads 2 9/16" None Tensile strength

stays: Material At turned off part No. of threads per inch

Over threads

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Are the stays drilled at the outer ends No Margin stays: Diameter At turned off part or Over threads

No. of threads per inch 9

Tubes: Material Carbon Steel External diameter 2 3/4" Thickness 0.157" No. of threads per inch 9

Pitch of tubes 3 15/16" x 3 27/32" Manhole compensation: Size of opening 10 13/16" x 2 x 31/32" sq.in.

shell plate 22" x 17 23/32" Section of compensating ring 10 13/16" x 2 x 31/32" sq.in. No. of rivets and diameter of rivet holes 44 x 1 5/32"

Outer row rivet pitch at ends 8 1/2" Depth of flange if manhole flanged 3 15/16" Steam Dome: Material -

Tensile strength - Thickness of shell - Description of longitudinal joint -

Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint -

Internal diameter - Thickness of crown - No. and diameter -

stays - Inner radius of crown - Diameter of rivet holes and pitch -

How connected to shell - Size of doubling plate under dome -

of rivets in outer row in dome connection to shell -

Type of Superheater None Manufacturers of -

Number of elements - Material of tubes - Internal diameter and thickness of tubes -

Material of headers - Tensile strength - Thickness - Can the superheater be shut off -

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 -

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 Yes

The foregoing is a correct description,
Shinji Yamamoto Manufacturer
President of Osaka Boiler Mfg. Co., Ltd.

Dates of Survey During progress of work in shops - 1958: Sept. 15, 18, 19, 27, Oct. 2, 11, 13, 18, 25, Nov. 3, 6, 7, 8, 10, 17 Are the approved plans of boiler and superheater forwarded herewith No 14-8-58

During erection on board vessel - - - Total No. of visits -

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.)
This boiler has been constructed under Special Survey in accordance with the Rules, Approved Plans and Secretary's letters.

The materials and workmanship are sound and good.
The boiler was tested by hydraulic pressure of 263 lbs/in2 and found satisfactory.

Identification of Steels:		Charge No. & Roll No.	Date of test or Cert.	Makers.
Shell and butt straps		3201527 5/6 1 & 2	3-7-57	The Japan Steel Works.
Upper end plates (front & back)		3201311 2/2 1 & 2	8-6-57	"
Lower " " (")		3201458 1/8 1 & 2	24-6-57	"
Furnace Plate		I-6104 7A175413	10-7-57	Kawasaki Steel Corp.
"		II-7542 7F 9683	2-7-57	"
Water tubes		T-41772	3-9-57	Toyo Kanbo Kogyo K.K.
Smoke tubes		(T-38191)	10-10-57	Teikoku Kokan Seizosho
		(T-38693)		
Rivet bars		SE 8972	12-8-57	Kobe Steel Works.
Main stays		1872	23-8-58	Nichia Seiko K.K., Amaguchi

Survey Fee £54,000.- When applied for DEC - 3, 1958

Travelling Expenses (if any) £ 4,370.- When received 19

Committee's Minute FRIDAY 22 MAY 1959

Assigned See Mpt. 1.

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