

# REPORT ON BOILERS.

FOR LONDON

No. FE-5109

14 FEB 1958

Received at London Office

Date of writing Report 17th Oct 1957 When handed in at Local Office 19 Port of KOBE

No. in Survey held at Osaka Date, First Survey 2nd Feb., 1957 Last Survey 18th Sept. 1957

Reg. Book. M.V. "KOBU MARU" (Number of Visits           )

on the Mitsubishi S.B. & Eng., Co., Ltd., Tons { Gross 9,202  
Nagasaki Works Net 5,345

Built at Nagasaki By whom built            Yard No. 1498 When built 1958, Jan.

Engines made at Ditto By whom made Ditto Engine No. 300 When made 1958, Jan.

Boilers made at Osaka, Japan By whom made Hirano Iron Works Co., Ltd. Boiler No. H-663 When made 1957-9

Owners Daido Kaiun K.K. Port belonging to Kobe

## VERTICAL BOILER.

Made at Osaka By whom made Hirano Iron Wks., Co., Ltd. Boiler No. H-663 When made 1957-9 Where fixed Engine Room

Manufacturers of Steel Plate: The Yawata Iron & Steel Co., Ltd., Tubes: Sumitomo Metal Ind., Ltd., Amagasaki.

Total Heating Surface of Boiler 80 M<sup>2</sup> Is forced draught fitted - Coal or Oil fired -

No. and Description of Boilers 1 - Cochran Donkey Boiler Working Pressure 7 kg/cm<sup>2</sup>

Tested by hydraulic pressure to 14 kg/cm<sup>2</sup> Date of test 18th September, 1957 No. of Certificate I-44473

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 2400mm Height 5200mm

Shell plates: Material Boiler steel Tensile strength 51.1-53.6 kg/mm<sup>2</sup> Thickness Top, Bottom: 16mm  
Middle: 18mm

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

Long. seams double butt strap Dia. of rivet holes in { circ. seams 26.5mm Pitch of rivets { 75.4mm Percentage of strength of circ. seams { 72.25%  
long. seams 23.0mm Top: 85mm Bot: 86mm

Longitudinal joint { plate 73.25% Thickness of butt straps { outer 13mm Shell Crown: Whether complete hemisphere, dished partial  
rivets 89.4% inner 16mm 45.6-  
combined - 46.6 kg/mm<sup>2</sup> Thickness 23mm

Spherical, or flat Dished partial Material Boiler steel Tensile strength 46.1-47.6 kg/mm<sup>2</sup> Thickness 18mm

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

Tensile strength 46.1-47.6 kg/mm<sup>2</sup> Thickness 18mm 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 1038mm

Thickness of Ogee Ring 32mm Diameter as per Rule { D 2400mm  
d 1981mm

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 45.5-47.4 kg/mm<sup>2</sup> Thickness { 30mm Mean pitch of stay tubes in nests 247.5mm  
back Boiler steel 46.5 kg/mm<sup>2</sup> 30mm

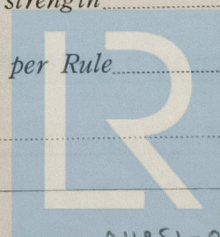
comprising shell, dia. as per Rule { front 70mm Pitch in outer vertical rows { 210mm Dia. of tube holes FRONT { stay 70mm BACK { stay 65mm  
back 65mm 210mm plain 67mm plain 66mm

each alternate tube in outer vertical rows a stay tube Yes

Stays to Combustion Chamber Tops: Material - Tensile strength -

Both and thickness of girder at centre - Length as per Rule -

Distance apart - No. and pitch of stays in each -



© 2021

Lloyd's Register Foundation

011851-011859-0084



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 ~~8mm~~

No. of threads per inch \_\_\_\_\_ Pitch of tubes \_\_\_\_\_

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

of rivet holes \_\_\_\_\_ Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged 85mm ✓

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,

Hirano Manufacturer.  
Hirano Iron Works Co., Ltd.

Dates of Survey { During progress of work in shops -- Feb. 2, 4, 19, Apr. 22, 25, July 12, 15, 27, 30, Aug. 28, Sept. 2, 3, 5, 6, 9, 10, 12, 15, 18, 1957. Is the approved plan of boiler forwarded herewith (If not state date of approval.) \_\_\_\_\_

while building { During erection on board vessel --- { Total No. of visits 19

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. (Ship No. 1464) M.V. "KOHOKI MARU"

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

The 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 has been examined under hydraulically and found satisfactory.

Identification of Steel Plate:-

Where used	Charge No.	Roll No.	Makers.
Shell Plate top	S 64407	R 2880	The Yawata Iron & Steel Co., Ltd.
" " bottom	"	R 2944	"
" " middle	S 64407	R 2878	"
	"	R 2879	"
Inner butt strap	S 64407	R 2944	"
Outer butt strap	"	R 2877	"
Shell crown	S 64129	R 2320	"
Front tube plate	S 64129	R 2351	"
Back tube plate	"	R 2348	"
Furnace crown	S 64129	R 2317	"
	"	R 2318	"
Ogeering	S 64129	R 2345	"

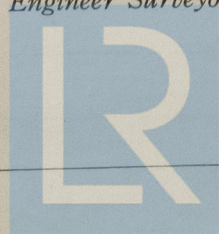
Survey Fee ... K O B E ... £ 27,000 } When applied for OCT. 30. 1957 19

Travelling Expenses (if any) £ 3.250 } When received \_\_\_\_\_ 19

Date TUESDAY 25 MAR 1958

Committee's Minute See Rpt-1

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation