

FOR LONDON.

No. FE835

# REPORT ON BOILERS.

and EXHAUST GAS HEAT ECONOMIZER

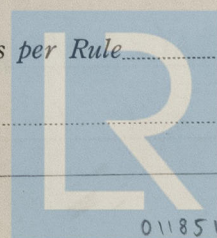
Received at London Office

14 FEB 1958

Writing Report 19 When handed in at Local Office 19 Port of Nagasaki (Shimonoseki)  
Survey held at Nagasaki Date, First Survey 18th Nov., 1957 Last Survey 7th Jan., 1957  
on the M.V. "KOBU MARU" (Number of Visits 5)  
Tons { Gross 9,202  
Net 5,345  
Nagasaki By whom built Mitsubishi Zosen K.K., Yard No. 1498 When built 1958-1  
Nagasaki By whom made Mitsubishi Zosen K.K., Engine No. 300 When made 1959-1  
Osaka By whom made Hirano Iron Works Co. Ltd. Boiler No. H-663 When made 1957-9  
Exhaust gas heat economizer made at Osaka By whom made: -Hirano Iron Works Co. Ltd. No. H-818 1957-9  
Daido Kaiun K.K. Port belonging to Kobe

## Material BOILER.

By whom made Boiler No. When made Where fixed  
Manufacturers of Steel  
Heating Surface of Boiler Is forced draught fitted Coal or Oil fired  
Description of Boilers 1-Cochran Type Vertical Donkey Boiler Working Pressure 7 KG/CM<sup>2</sup>  
Exhaust Gas Heat Economizer, 1-Water Tube Forced Circulation Type Exhaust Gas Heater (Designed Pressure 11 KG/CM<sup>2</sup>)  
by hydraulic pressure to 466 m<sup>2</sup> H.S. Date of test No. of Certificate  
Boiler: -1 Set High Lift Type 60 Dia. Double Safety Valve.  
Economizer: -1 Spring loaded single escape valve 50%  
No. and description of safety valves to each boiler  
As approved for one valve 5654/102  
Pressure to which they are adjusted 2827 mm<sup>2</sup> (Boiler) 11 kg/cm<sup>2</sup> (Economizer)  
Are they fitted with easing gear Yes  
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 Yes Largest internal dia. of boiler Height  
Material Tensile strength Thickness  
Shell plates welded or flanged If fusion welded, state name of welding firm  
All the requirements of the Rules for Class I vessels been complied with Description of riveting: circ. seams { end inter  
Diam. of rivet holes in { circ. seams Pitch of rivets { Percentage of strength of circ. seams { plate rivets  
Longitudinal joint { plate rivets Thickness of butt straps { outer inner Shell Crown: Whether complete hemisphere, dished partial  
combined  
Material Tensile strength Thickness  
Description of Furnace: Plain, spherical, or dished crown Material  
Strength Thickness External diameter { top bottom Length as per Rule  
Support stays circumferentially and vertically Are stays fitted with nuts or riveted over  
Radius of spherical or dished furnace crown  
Diameter as per Rule { D d  
Material Tensile strength Thickness of top plate  
Thickness of back plate Diameter if circular  
Pitch of stays  
Diameter of stays over thread  
Material { front back Tensile strength Thickness Mean pitch of stay tubes in nests  
Pitch in outer vertical rows { Dia. of tube holes FRONT { stay plain BACK { stay plain  
alternate tube in outer vertical rows a stay tube  
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.....External diameter { plain.....  
stay.....Thickness {  
No. of threads per inch.....Pitch of tubes.....  
Manhole Compensation: Size of opening in shell plate.....Section of compensating ring.....No. of rivets and diameter.....  
of rivet holes.....Outer row rivet pitch at ends.....Depth of flange if manhole flanged.....  
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.....

The foregoing is a correct description,

*S. Koga*  
NAGASAKI WORKS

MITSUBISHI SHIPBUILDING & ENGINEERING CO., LTD.

Manufacturer.....

Dates of Survey { During progress of work in shops -- { Is the approved plan of boiler forwarded herewith.....  
while building { During erection on board vessel --- { 1957, Nov. 18, 26 Dec., 11, 28  
1958, Jan., 7  
Total No. of visits 5 (Nagasaki)

Is this Boiler a duplicate of a previous case.....Yes.....If so, state Vessel's name and Report No. "KOSEI MARU", "KOBU MARU"

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

The donkey boiler and the exhaust gas heat economizer have been installed under the supervision of the surveyor in accordance with the requirement of the Rules, the approved plans and the Secretary's letters.

The donkey boiler and the exhaust gas heat economizer have been examined under steam, safety valves adjusted to 7 kg/cm<sup>2</sup> for donkey boiler and 11 kg/cm<sup>2</sup> for exhaust gas heat economizer, accumulation test carried out and found satisfactory.

For the reports on survey of the donkey boiler and the exhaust gas heat economizer during construction in the shop, please see Kobe surveyor's Rpt. 56 No. FE-5109 and Rpt. 10 No. M-44320 attached herewith.

Survey Fee ... £24,000 : When applied for FEB - 5. 1958  
Travelling Expenses (if any) £ : : When received LOCALLY

Date TUESDAY 25 MAR 1958

Committee's Minute See Rpt. 1.

Engineer Surveyor to Lloyd's Register of Shipping.



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