

REPORT ON BOILERS.

No. FE 795

and EXHAUST GAS HEAT ECONOMIZER.

Received at London Office

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of Nagasaki (Shimonoseki)

No. in Survey held at Nagasaki Date, First Survey 4th July, 1957 Last Survey 11th Oct., 1957

eg. Book. (Number of Visits 5) Tons { Gross 9,208 Net 5,350

on the M.V. "KOHOKU MARU"

Built at Nagasaki By whom built Mitsubishi Zosen K.K. Yard No. 1497 When built 1957-10

Engines made at Nagasaki By whom made Mitsubishi Zosen K.K. Engine No. 299 When made 1957-10

Boilers made at Osaka By whom made Hirano Iron Works Co., Ltd. Boiler No. H662 When made 1957-6

Exhaust gas heat economizer By whom made; - Hirano Iron Works Co., Ltd. No. H817 When made 1957-6

Made at: - Osaka

Owners Daido Kaiun K.K. Port belonging to Kobe

VERTICAL BOILER.

made at * By whom made Boiler No. When made Where fixed

Manufacturers of Steel

Total Heating Surface of Boiler Is forced draught fitted Coal or Oil fired

No. and Description of Boilers 1-Cochran Type Vertical Donkey Boiler Working Pressure 7 KG/CM2

Exhaust Gas Heat Economizer 1-Water Tube Forced Circulation Type Exhaust Gas Heater 7 KG/CM2

Tested by hydraulic pressure to Date of test No. of Certificate

Area of fire in each Boiler No. and description of safety valves to each boiler Boiler:- 1 Set High lift type 60 Dia.

Area of each set of valves per boiler { per Rule as approved Economizer:- Double Safety Valve

Pressure to which they are adjusted 7 kg/cm2 (Boiler) 1 Spring loaded Single Escape

1970mm2 (boiler) 11 kg/cm2 (Economizer) Are they fitted with easing gear? Yes Valve.

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

woodwork 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 Height

Shell plates: Material Tensile strength Thickness

Are the shell plates welded or flanged 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 inter

Long. seams Dia. 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

Spherical, or flat Material Tensile strength Thickness

Radius Description of Furnace: Plain, spherical, or dished crown Material

Tensile strength Thickness External diameter { top bottom 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

Thickness of Ogee Ring Diameter as per Rule { D d

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 back Tensile strength { Thickness { Mean pitch of stay tubes in nests

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

each alternate tube in outer vertical rows a stay tube

Reinforcing members 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 _____ 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 ZOSEN KABUSHIKI KAISHA
 MITSUBISHI SHIPBUILDING & ENGINEERING CO., LTD. Manufacturer

Dates of Survey { During progress of work in shops -- { July, 4, 25, Aug. 30
 while building { During erection on board vessel --- { Sept. 20, Oct. 11

Is the approved plan of boiler forwarded herewith { 7th Jan., 1957
 (If not state date of approval.) { 18th June, 1957

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. M.V. "KOSEI 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 valve adjusted to 7 kg/cm² for donkey boiler and 11 kg/cm² 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. 5b No. 4838 and Rpt. 10 No. M41947 attached herewith.

THS - 66 apm
 Design - 11 kg
 Working - 7 kg

Survey Fee ... £24,000 : When applied for NOV. 11, 1957
 Travelling Expenses (if any) £ : : When received LOCALLY 19...

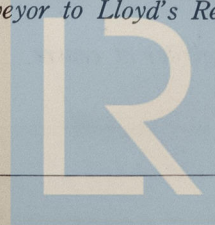
TUESDAY 31 DEC 1957

Date

Committee's Minute

See Rpt. 1

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation

Date of writing B
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 Reg. Book.
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 Owners Dai
 Installation fit
 Is vessel equip
 Plans, have they
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 Are all the cable
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 and laundries
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 Are all lead sheaths
 bulkheads provided
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 Have refrigeration
 Are the motors acc