

REPORT ON BOILERS.

No. FE935

Received at London Office.....

of writing Report..... 19..... When handed in at Local Office..... 19..... Port of **SHIMONOSEKI.**

Survey held at **Kasado, Japan** Date, First Survey **3rd Dec., 1958** Last Survey **7th Feb., 1959.**

on the **M.V. "NARRA"** (Number of Visits **6**) Tons Gross **3366.97** Net **1871.70**

Built at **Kasado, Japan** By whom built **Kasado Dockyard Co., Ltd.,** Yard No. **203** When built **1959-2**

Engines made at **Yokohama, Japan** By whom made **Yokohama Shipyard & Engine Works** Engine No. **D65238** When made **1958-12**

Boilers made at **Osaka, Japan** By whom made **Mitsubishi Nippon Heavy Industries Ltd.** Boiler No. **1454** When made **1958-11**

Owners **Philippine Ace Line, Inc.** Port belonging to **Manila**

MULTITUBULAR BOILERS ~~MAIN~~ ~~AUXILIARY~~ ~~OR~~ DONKEY.

Manufacturers of Steel..... (Letter for Record.....)

Total Heating Surface of Boilers..... Is forced draught fitted **Yes** Coal or Oil fired **Oil**

Description of Boilers..... **1-Dry combustion Multitubular type with exhaust gas heated economizer.** Working Pressure **142 p.s.i.**

Tested by hydraulic pressure to..... Date of test..... No. of Certificate..... **Rpt. 5a. FE-6236 (Kob)** Can each boiler be worked separately.....

Area of Firegrate in each Boiler..... No. and Description of safety valves to each boiler..... **Economizer M-53158 (Kob)** **1-60mm dia. duplex improved high lift type.**

Area of each set of valves per boiler..... Pressure to which they are adjusted **144 p.s.i.** Are they fitted with easing gear..... **Yes**

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler..... **-**

Smallest distance between boilers or uptakes and bunkers or woodwork..... **1150 mm** Is oil fuel carried in the double bottom under boilers..... **No**

Smallest distance between shell of boiler and tank top plating..... Is the bottom of the boiler insulated..... **Yes**

Largest internal dia. of boilers..... Length..... Shell plates: Material..... Tensile strength.....

Thickness..... Are the shell plates welded or flanged..... Description of riveting: circ. seams { end..... inter..... } long seams..... Pitch of rivets { .. } ..

Percentage of strength of circ. end seams { plate..... rivets..... } Percentage of strength of circ. intermediate seam { plate..... rivets..... }

Percentage of strength of longitudinal joint { plate..... rivets..... } Working pressure of shell by Rules.....

Thickness of butt straps { outer..... inner..... } No. and Description of Furnaces in each Boiler.....

Material..... Tensile strength..... Smallest outside diameter.....

Length of plain part { top..... bottom..... } Thickness of plates { crown..... bottom..... } Description of longitudinal joint.....

Dimensions of stiffening rings on furnace or c.c. bottom..... Working pressure of furnace by Rules.....

Plates in steam space: Material..... Tensile strength..... Thickness..... Pitch of stays.....

Are stays secured..... Working pressure by Rules.....

Stays: Material { front..... back..... } Tensile strength { .. } Thickness { .. }

Pitch of stay tubes in nests..... Pitch across wide water spaces..... Working pressure { front..... back..... }

Stays to combustion chamber tops: Material..... Tensile strength..... Depth and thickness of girder

Centre..... Length as per Rule..... Distance apart..... No. and pitch of stays

Working pressure by Rules..... Combustion chamber plates: Material.....

Tensile strength..... Thickness: Sides..... Back..... Top..... Bottom.....

Are stays fitted with nuts or riveted over.....

Working pressure by Rules..... Front plate at bottom: Material..... Tensile strength.....

Lower back plate: Material..... Tensile strength..... Thickness.....

Are stays fitted with nuts or riveted over.....

Working pressure..... Main stays: Material..... Tensile strength.....

At body of stay..... No. of threads per inch..... Area supported by each stay.....

Over threads.....

Working pressure by Rules..... Screw stays: Material..... Tensile strength.....

At turned off part..... No. of threads per inch..... Area supported by each stay.....

Over threads.....

[Handwritten signature]
12/1/59

Working pressure by Rules..... Are the stays drilled at the outer ends..... Margin stays: Diameter { At turned off part..... or Over threads.....
 No. of threads per inch..... Area supported by each stay..... Working pressure by Rules.....
 Tubes: Material..... External diameter { Plain..... Stay..... Thickness { No. of threads per inch.....
 Pitch of tubes..... Working pressure by Rules..... Manhole compensation: Size of opening
 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..... Steam Dome: Material.....
 Tensile strength..... Thickness of shell..... Description of longitudinal joint.....
 Diameter of rivet holes..... Pitch of rivets..... Percentage of strength of joint { Plate..... Rivets.....
 Internal diameter..... Working pressure by Rules..... Thickness of crown..... No. and diameter
 stays..... Inner radius of crown..... Working pressure by Rules.....
 How connected to shell..... Size of doubling plate under dome..... Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell.....

Type of Superheater.....

Manufacturers of { Tubes..... Steel forgings..... Steel castings.....
 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 casing gear..... Working pressure as
 Rules..... 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,

[Signature] Manufacturer
KASADO DOCKYARD CO., LTD.

Dates of Survey while building { During progress of work in shops - - - 3-12-1956, 10, 29, 30-1-1959, Are the approved plans of boiler and superheater forwarded herewith..... (If not state date of approval.)
 During erection on board vessel - - - 4, 7-1-1959 Total No. of visits..... 6

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.)..... The Donkey Boiler with exhaust gas heater

economizer of this ship has been installed under the supervision of the undersigned in accordance with the requirement of the Rules, Approved Plans and Secretary's letters.

The Donkey Boiler with exhaust gas heated economizer was examined under steam, safety valves on

the Donkey Boiler adjusted to 144 p.s.i., accumulation test carried out and found satisfactory.

The safety valves of the exhaust gas heated economizer adjusted to 185 p.s.i.

For the reports on survey of the donkey boiler & economizer during construction in the ship, please see Kobe Surveyor report No. FE-6236(Kob) and Cert. No. M-53158(Kob) attached herewith.

Survey Fee See Rpt. 4b No. FE935 : : When applied for..... 19.....
 Travelling Expenses (if any) £ : : When received..... 19.....

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping

FRIDAY 22 MAY 1959

Committee's Minute.....

Assigned..... See Rpt. 1.