

# REPORT ON BOILERS.

No. 8297

Received at London Office 15 SEP 1933

Date of writing Report 5-8-33 19 When handed in at Local Office 15-8-33 19 Port of Kobe

No. in Survey held at Tama Date, First Survey 25-1-33 Last Survey 26-7-33 19  
Reg. Book. on the Single Screw Motor Ship "AZUMASAN MARU" (Number of Visits 8) Tons {Gross Net

Built at Tama By whom built Inoue Mitsui Bureau Kaisha Ltd. No. 195 When built 1933

Engines made at Tama By whom made Inoue Mitsui Bureau Kaisha Ltd. Engine No. 195 When made 1933

Boilers made at Tama By whom made Inoue Mitsui Bureau Kaisha Ltd. Boiler No. 195 When made 1933

Owners Inoue Mitsui Bureau Kaisha Ltd. Port belonging to Kobe

## VERTICAL DONKEY BOILER.

Made at Tama By whom made Inoue Mitsui Bureau Kaisha Ltd. Boiler No. 195 When made 1933 Where fixed E.R. Bottom Platform

Manufacturers of Steel Inoue Colvilles Ltd. Glasgow. Apply to Inoue Co. Ltd.

Total Heating Surface of Boiler 710 sq ft Is forced draught fitted no Coal or Oil fired oil

No. and Description of Boilers One Vertical Section Type Working pressure 120 lbs.

Tested by hydraulic pressure to 230 lbs Date of test 26-6-33 No. of Certificate 3554

Area of Firegrate in each Boiler oil fired No. and Description of safety valves to each boiler Two Spring Loaded 2 1/2" dia.

Area of each set of valves per boiler {per rule 7.80" as fitted 9.80" Pressure to which they are adjusted 120 lbs Are they fitted with easing gear yes

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

or woodwork 3'-2 1/2" Is oil fuel carried in the double bottom under boiler no Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated yes Largest internal dia. of boiler 7'-6" Height 16'-3"

Shell plates: Material O.H. Steel Tensile strength 28-32 tons Thickness 5/8"

Are the shell plates welded or flanged no Description of riveting: circ. seams {end P.P. Lap inter. " " long. seams F.R. Lap

Dia. of rivet holes in {circ. seams 15/16" Pitch of rivets {27/8" Percentage of strength of circ. seams {plate 67.4 rivets 63.1 of Longitudinal joint {plate 73.2 rivets 72.7 combined

Working pressure of shell by rules 145 lbs. Thickness of butt straps {outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished Material Steel

Tensile strength 26-30 tons Thickness 3/4" Radius 5'-6" Working pressure by rules 136 lbs.

Description of Furnace: Plain, spherical, or dished crown Spherical Material Steel Tensile strength 26-30 tons

Thickness 3/4" External diameter {top 6'-7" Length as per rule Working pressure by rules 160 lbs.

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 3'-2 3/4" Working pressure by rule

Thickness of Ogee Ring 1" Diameter as per rule {D 90" Working pressure by rule 136 lbs. {a 79"

Combustion Chamber: Material Steel Tensile strength Thickness of top plate

Radius if dished - Working pressure by rule 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 Working pressure of back plate by rules

Tube Plates: Material {front Steel back " Tensile strength 26-30 Thickness 1" Mean pitch of stay tubes in nests 10.875"

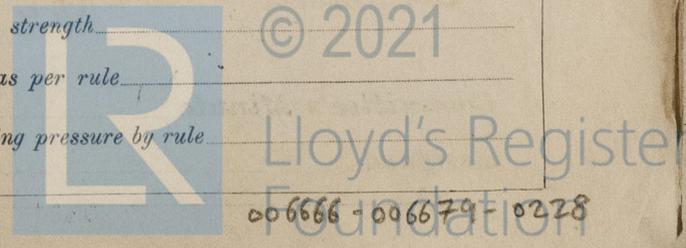
If comprising shell, Dia. as per rule {front 3.625" Pitch in outer vertical rows {3.625" Dia. of tube holes FRONT {stay 2 1/2" plain 2 1/2" BACK {stay plain

Is each alternate tube in outer vertical rows a stay tube yes Working pressure by rules {front 164 lbs back 164 lbs

Girders to combustion chamber tops: Material Steel Tensile strength

Depth and thickness of girder at centre Length as per rule

Distance apart No. and pitch of stays in each Working pressure by rule



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Crown stays: Material  Tensile strength \_\_\_\_\_ Diameter { at body of stay, \_\_\_\_\_ or over threads \_\_\_\_\_

No. of threads per inch  Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Screw stays: Material  Tensile strength \_\_\_\_\_ Diameter { at turned off part, \_\_\_\_\_ or over threads \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_

Tubes: Material wrought iron External diameter { plain 2 1/2" stay 2 1/2" Thickness { 10 L.S.G. 5/16, 1/4"

No. of threads per inch 9 Pitch of tubes 3 5/8" - 3 5/8" Working pressure by rules 128.3 lb.

Manhole Compensation: Size of opening in shell plate 11" x 15" Section of compensating ring 5 1/2" 15" x 625" No. of rivets and diameter \_\_\_\_\_

of rivet holes 48 @ 1 5/16" Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged 3 1/2"

Uptake: External diameter \_\_\_\_\_ Thickness of uptake plate \_\_\_\_\_

Cross Tubes: No. \_\_\_\_\_ External diameters { \_\_\_\_\_ Thickness of plates \_\_\_\_\_

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes

The foregoing is a correct description,

J. Wat, Manufacturer.

Dates of Survey { During progress of work in shops - 1933 Jan 25 June 2, 12, 23, 26 Is the approved plan of boiler forwarded herewith 4-10-32 (If not state date of approval.)

while building { During erection on board vessel - July 10-11, 26. Total No. of visits 8

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

This boiler has been constructed under special survey in accordance with the Rules and approved plans; the materials and workmanship are good. The boiler was tested by hydraulic pressure to 230 lbs per square inch and found tight & sound and afterwards efficiently installed in the vessel and the safety valves adjusted under steam to 120 lbs per sq. inch. The boiler is eligible, in my opinion, to have the record of D.B. 120 lbs.

\* add to per K&B

Survey Fee ... yen 81.00 When applied for, 2<sup>nd</sup> August 1933

Travelling Expenses (if any) £ 21.00 When received, 26.10.1933

included in this Report.

A. J. Morrison  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 12 SEP 1933  
Assigned See F.E. Rpt.

Enl. 29 SEP 1933

