. 5b.

REPORT ON BOILERS. No. 9607

Received at London Office 20 JUL 1936

te of writing Report 15-6-1936 When handed in at Local Office 25-6-1936 Port of KOBE

No. in g. Book. Survey held at TAMA Date, First Survey 13-11-35 Last Survey 29-5-1936

on the STEEL SINGLE SCREW MOTORSHIP "CANBERRA MARU". (Number of Visits 15) Tons Gross 6477. Net 3858.

ilt at TAMA By whom built MITSUI BUSSAN KAISHA Yard No. 216 When built 1936

gines made at TAMA By whom made MITSUI BUSSAN KAISHA Engine No. 107 When made 1936

ilers made at TAMA By whom made MITSUI BUSSAN KAISHA Boiler No. 129 When made 1936

mers OSAKA SHOSEN KABUSHIKI KAISHA. Port belonging to OSAKA.

ERTICAL DONKEY BOILER.

de at TAMA By whom made MITSUI BUSSAN KAISHA Boiler No. 129 ✓ When made 1936 Where fixed 1936. ✓

nufacturers of Steel KAWASAKI DOCKYARD, FUKIAI WORKS, KOBE

tal Heating Surface of Boiler 59.7 √SQUARE METER Is forced draught fitted NO. ✓ Coal or Oil fired OIL + WASTE GAS.

, and Description of Boilers ONE, COCHRAN'S TYPE ✓ **Working pressure** 7 Kg/cm² ✓

sted by hydraulic pressure to 14 Kg/cm² ✓ Date of test 21-4-36 ✓ No. of Certificate 5086 ✓

ea of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 SPRING LOADED.

ea of each set of valves per boiler { per rule 545 cm² / as fitted 570 cm² √ Pressure to which they are adjusted YES ✓ Are they fitted with easing gear YES ✓

te whether steam from main boilers can enter the donkey boiler ✓ Smallest distance between boiler or uptake and FUEL OIL ~~bunkers~~

K FOR D.B ~~woodwork~~ ABOUT 2 FT. 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 2,100 m/m ✓ Height 5750 m/m ✓

ell plates: Material STEEL ✓ Tensile strength 28~32 & 26~30 T/□" ✓ Thickness 14 m/m ✓

e the shell plates welded or flanged NO ✓ Description of riveting: circ. seams { end D.R. LAP / inter. D.R. LAP ✓ long. seams TREBLE RIVETED LAP ✓

. of rivet holes in { circ. seams 23.5 m/m ✓ / long. seams 23.5 m/m ✓ Pitch of rivets { 72.5 m/m ✓ / 85 m/m ✓ Percentage of strength of circ. seams { plate 67.5 / rivets 70.0 ✓ of Longitudinal joint { plate 72.5 / rivets 89.5 / combined ✓

rking pressure of shell by rules 9.5 Kg/cm² ✓ Thickness of butt straps { outer ✓ / inner ✓

ell Crown: Whether complete hemisphere, dished partial spherical, or flat DISHED PARTIAL SPHERICAL Material STEEL ✓

nsile strength 26-30 T/□" ✓ Thickness 16 m/m ✓ Radius 3600 m/m 1800 Working pressure by rules 7.4 Kg/cm² ✓

scription of Furnace: Plain, spherical, or dished crown SPHERICAL ✓ Material STEEL ✓ Tensile strength 26~30 T/□" ✓

ickness { CROWN – 16 m/m ✓ / BOTTOM – 24 m/m ✓ OGee ring External diameter { top 1800 m/m ✓ / bottom ✓ Length as per rule ✓ Working pressure by rules ✓

ch of support stays circumferentially ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓

meter of stays over thread ✓ Radius of spherical or dished furnace crown 884 m/m ✓ Working pressure by rule 10.6 Kg/cm²

ickness of Ogee Ring 24 m/m ✓ Diameter as per rule { D 2100 m/m / d 1800 m/m ✓ Working pressure by rule 8.65 Kg/cm² ✓

mbustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓

dius if dished ✓ Working pressure by rule ✓ Thickness of back plate ✓ Diameter if circular ✓

gth as per rule ✓ Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓

meter of stays over thread ✓ Working pressure of back plate by rules ✓

be Plates: Material { front STEEL / back STEEL ✓ Tensile strength { 26~30 T/□" / 26~30 T/□" ✓ Thickness { 20 m/m ✓ / 25 m/m ✓ Mean pitch of stay tubes in nests 277.5 m/m ✓

omprising shell, Dia. as per rule { front 1647 m/m / back 1912 m/m ✓ Pitch in outer vertical rows { 95 m/m / 95 m/m Dia. of tube holes FRONT { stay 63.5 m/m / plain 63.5 m/m BACK { stay 48 m/m / plain 46.7 m/m ✓

each alternate tube in outer vertical rows a stay tube YES Working pressure by rules { front 7.5 Kg/cm² / back 7.17 Kg/cm² ✓

ders to combustion chamber tops: Material ✓ Tensile strength ✓

th and thickness of girder at centre ✓ Length as per rule ✓

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

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* STEEL ✓ *External diameter* { *plain* 63.5 m/m ✓ / *stay* 63.5 m/m ✓ *Thickness* { .116" ✓ / 5/16" + 1/4" ✓

No. of threads per inch 9 *Pitch of tubes* 90 m/m x 95 m/m ✓ *Working pressure by rules* 8.6 Kg/cm² ✓

Manhole Compensation: *Size of opening in shell plate* 380 m/m x 480 m/m ✓ *Section of compensating ring* 380 m/m x 16 m/m *No. of rivets and diame*

of rivet holes 48. 23.5 m/m ✓ *Outer row rivet pitch at ends* 180 m/m ✓ *Depth of flange if manhole flanged* 90 m/m ✓

Uptake: *External diameter* 772 m/m ✓ *Thickness of uptake plate* 6 m/m ✓

Cross Tubes: *No.* ✓ *External diameters* { ✓ / ✓ *Thickness of plates* ✓

Have all the requirements of Sections 14 *to* 23 *inclusive for boilers been complied with* YES.

Please sign →

The foregoing is a correct description,
PER PRO MITSUI BUSSAN KAISHA, LTD.,
S. Saito *Manufactu*
SUB-MANAGER SHIPBUILDING DEP'T.

Dates of Survey while building — *During progress of work in shops* - - 1935. NOV. 13 1936. FEB. 8. 25. MAR 7. 14. 31 APR. 27. 28 MAY. 8. 12. 24.
During erection on board vessel - - 1936. MAY 22. 27. 29.

Is the approved plan of boiler forwarded herewith 15-8-35.
(If not state date of approval.)

Total No. of visits 14

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 plan.

The materials and workmanship are good.

The boiler was tested by hydraulic pressure to 14 Kg/cm² and found sound and tight, afterwards installed in accordance with the Rules in the vessel, and Safety valves adjusted under Steam to 7 Kg/cm². (100 lbs./in²).

The boiler, in my opinion, is eligible to have the record of D.B. 7 Kg (100 lbs./in²).

Survey Fee ... ... £ 5-5-0 ✓ *When applied for,* 29/5/1936 ✓
Travelling Expenses (if any) £ : : *When received,* 25-8 19 36 25-8

M. Kamakura.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 JUL 1936
Assigned See Kob. F.E. 9607