

# REPORT ON BOILERS.

No. 2285

Received at London Office

THU. 0007. 1918

Date of writing Report 11<sup>th</sup> Aug 1918 When handed in at Local Office 1918 Port of Kobe

No. in Survey held at Osaka Date, First Survey \_\_\_\_\_ Last Survey \_\_\_\_\_ 191

Reg. Book. Steel Single Screw Steer "Kaisho Maru" fitted in Yahiko Maru (Number of Visits) \_\_\_\_\_ Gross Tons 6071 Net Tons 4433

Master \_\_\_\_\_ Built at Osaka By whom built The Osaka Iron Works Ltd. When built 1918

Engines made at Osaka By whom made The Osaka Iron Works Ltd. When made 1918

Boilers made at do By whom made do When made do

Registered Horse Power 553 Owners Katsuda Kisen Kaisha Port belonging to Mitsuyama

## MULTITUBULAR BOILERS — ~~MANUFACTURED BY~~ DONKEY. — Manufacturers of Steel J. Dunlop & Co

(Letter for record S.) Total Heating Surface of Boilers 1139<sup>sq</sup> Is forced draft fitted No. No. and Description of Boilers On S.S. Working Pressure 120 lbs Tested by hydraulic pressure to 240<sup>lbs</sup> Date of test 13/4/18

No. of Certificate LLOYD'S M.Y.D. TEST 240 LBS 13.4.1918 Can each boiler be worked separately Yes Area of fire grate in each boiler 41<sup>sq</sup> No. and Description of safety valves to each boiler Two, direct spring Area of each valve 3" dia. Pressure to which they are adjusted 125 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.

Smallest distance between boilers or uptakes and bunkers or woodwork 21" Mean dia. of boilers 11'-6" Length 10'-0"

Material of shell plates Steel Thickness 3/4" Range of tensile strength 28 & 35<sup>tons</sup> Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams D. riv. long. seams Doub. riv<sup>2</sup> Diameter of rivet holes in long. seams 15/16" Pitch of rivets 5" x 2 1/2"

width of butt straps 10" Per centages of strength of longitudinal joint rivets 82.2 Working pressure of shell by rules 130 lbs Size of manhole in shell 12" x 16" Size of compensating ring 28" x 32" x 3/4" No. and Description of Furnaces in each boiler Two: plain Material Steel Outside diameter 44" Length of plain part 44" Thickness of plates crown 9/16" bottom 48"

Description of longitudinal joint Weld No. of strengthening rings On gangle Working pressure of furnace by the rules 137 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 5/8" Pitch of stays to ditto: Sides 8 1/2" x 9 3/4" Back 8 1/2" x 9 3/4"

Top 8 1/2" x 9 3/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 131 lbs Material of stays Steel Area at smallest part 179<sup>sq</sup> Area supported by each stay 9 1/2" x 11 1/2" Working pressure by rules 136 lbs End plates in steam space: Material Steel Thickness 7/8"

Pitch of stays 17" x 17" How are stays secured Doub. nuts Working pressure by rules 125 lbs Material of stays Steel Area at smallest part 3.97<sup>sq</sup>

Area supported by each stay 17" x 17" Working pressure by rules 143 lbs Material of Front plates at bottom Steel Thickness 1/16" Material of Lower back plate Steel Thickness 1/16" Greatest pitch of stays 14" between nests of stays Working pressure of plate by rules 120 lbs Diameter of tubes 3 1/2"

Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 11/16" Back 11/16" Mean pitch of stays 11 7/8" Pitch across wide water spaces 14" Working pressures by rules 120 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 4" x 3/4" (2 plates) Length as per rule 29" Distance apart 8 1/2" Number and pitch of Stays in each 2 @ 9 3/4"

Working pressure by rules 165 lbs Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_

Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_

Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

UPERHEATER. Type \_\_\_\_\_ Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_

Date of Test \_\_\_\_\_ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_

Diameter of Safety Valve \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

The foregoing is a correct description of the boiler.

G. Yamata Manufacturer



Dates of Survey: During progress of work in shops -- 11.24 Jan. 7.19 Feb. 8.22 Mar Is the approved plan of boiler forwarded herewith \_\_\_\_\_

while building: During erection on board vessel -- 5.13 April 9.11 May 7.10 June 1918 Total No. of visits 12

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

This donkey boiler has been made & fitted under Special Survey in accordance with the rules & the materials & workmanship are good.

Survey Fee ... £ 80 : When applied for, 27 May 1918

Travelling Expenses (if any) £ : : When received, 1st June 1918

A. L. Jones  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. OCT. 11. 1918

Assigned \_\_\_\_\_

