

REPORT ON BOILERS.

No. 25-147
TUES. APL 23 1907

Port of Glasgow

Received at London Office

No. in Survey held at Glasgow Date, first Survey 10th May 06 Last Survey 19th April 07

Reg. Book. on the s/s "Chikuzen Maru" (Number of Visits) Tons ^{Gross} _{Net}

Master Glasgow Built at Glasgow By whom built D. & W. Henderson & Co. When built 1907

Engines made at Glasgow By whom made D. & W. Henderson & Co. when made 1907

Boilers made at Glasgow By whom made D. & W. Henderson & Co. when made 1907

Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS ~~MAIN~~ ~~AUXILIARY~~ ~~OR~~ DONKEY. — Manufacturers of Steel see blueprint to Calderbank.

(Letter for record) Total Heating Surface of Boilers 627 sq. ft. Is forced draft fitted no No. and Description of Boilers One single ended Working Pressure 100 lbs Tested by hydraulic pressure to 200 Date of test 15/2/07

No. of Certificate 8315 Can each boiler be worked separately Area of fire grate in each boiler 25 sq. ft. No. and Description of safety valves to each boiler 2 patent spring Area of each valve 4.9 sq. in. Pressure to which they are adjusted 100 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 17" Mean dia. of boilers 9" 0" Length 9" 0"

Material of shell plates steel Thickness 19/32 Range of tensile strength 28 to 32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams double lap long, seams treble Diameter of rivet holes in long. seams 39/32 Pitch of rivets 3 5/8

Lap of plates or width of butt straps 6 3/8 Per centages of strength of longitudinal joint ^{rivets} 76.4 _{plate} 75.0 Working pressure of shell by rules 106 lbs

Size of manhole in shell 16" x 18" Size of compensating ring 24" x 28" x 5/8" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 31" Length of plain part ^{top} 5" 6" _{bottom} 5" 10 1/2" Thickness of plates ^{crown} 15" _{bottom} 3 3/4"

Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 115 lbs Combustion chamber plates: Material steel Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 3/4 Pitch of stays to ditto: Sides 9" x 9" Back 9" x 9"

Top 9" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 107 lbs Material of stays steel ^{area} _{Diameter} at smallest part 1.44 Area supported by each stay 81 Working pressure by rules 105 End plates in steam space: Material steel Thickness 27/32

Pitch of stays 18" x 18" How are stays secured 2 nuts & W Working pressure by rules 104 Material of stays steel ^{area} _{Diameter} at smallest part 3.85

Area supported by each stay 374 Working pressure by rules 120 Material of Front plates at bottom steel Thickness 3/4 Material of Lower back plate steel Thickness 21/32 Greatest pitch of stays 14" x 9" Working pressure of plate by rules 107 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates steel Thickness: Front 3/4 Back 1/2 Mean pitch of stays 9 1/4" Pitch across wide water spaces 11" Working pressures by rules 102 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6 7/8" x 2" - 1/2" Length as per rule 27" Distance apart 9" Number and pitch of Stays in each 2 - 9"

Working pressure by rules 106 lbs Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

VERTICAL DONKEY BOILER — No. none Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint ^{Rivets} _{Plates} Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates

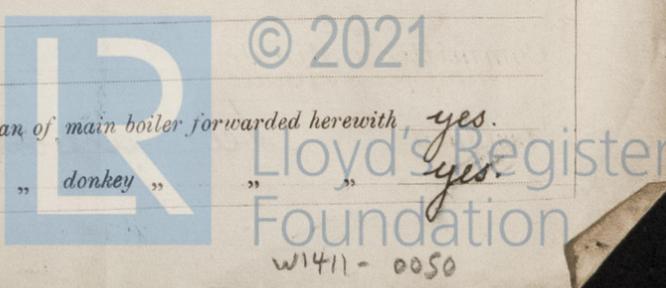
plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,
FOR DAVID & WILLIAM HENDERSON & CO., LIMITED.
Lawrence Henderson Manufacturer.
Director.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits see accompanying report

Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " yes



GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. *See separate report on machinery*)

[Faint, mostly illegible handwritten notes and signatures are visible in this section.]

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee... £	:	:	When applied for.
Special £	:	:	19
Donkey Boiler Fee ... £	:	:	When received.
Travelling Expenses (if any) £	:	:	19

A. McLeod & James Morrison
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **Glasgow** 22 APR 1907;

Assigned *See accompanying report* *[Signature]*