

# REPORT ON BOILERS.

No. 15251

Port of Greenock

Received at London Office

TUES. 12 NOV 1907

No. in Survey held at Port Glasgow Date, first Survey 23<sup>rd</sup> May Last Survey 6<sup>th</sup> November 1907

Reg. Book. on the SCREW STEAMER "KOOYONG" (Number of Visits HA)

Master McDonald Built at Port Glasgow By whom built Clyde S.B. Ring Co. Ltd. When built 1907

Engines made at Port Glasgow By whom made Clyde S.B. Ring Co. Ltd. when made 1907

Boilers made at Port Glasgow By whom made Clyde S.B. Ring Co. Ltd. when made 1907

Registered Horse Power Owners Port belonging to Melbourne

Tons { Gross 2295.52  
Net 1392.63

## MULTITUBULAR BOILERS — DONKEY — Manufacturers of Steel Steel 6<sup>th</sup> of Scotland

(Letter for record \$ ) Total Heating Surface of Boilers 652 Is forced draft fitted no No. and Description of Boilers one: Cylindrical built Single End Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 4/10/07

No. of Certificate 854 Can each boiler be worked separately no Area of fire grate in each boiler 29.2 sqft No. and Description of safety valves to each boiler 2: Direct Spring Area of each valve 5.94 Pressure to which they are adjusted 105 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 about 12" Mean dia. of boilers 10' 0" Length 10' 0"

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

Descrip. of riveting: cir. seams Lap Long. seams Quadruple Diameter of rivet holes in long. seams 27/32 Pitch of rivets 3.841

Lap of plates or width of butt straps 8 1/4" Per centages of strength of longitudinal joint rivets 83.5 Working pressure of shell by rules 101 lbs Size of manhole in shell 16" x 12" Size of compensating ring 27 1/2 x 33 1/2 x 19 1/2 No. and Description of Furnaces in each boiler 2: Deighton's Material Steel Outside diameter 39.6" Length of plain part 6.3 Thickness of plates crown 1 1/2" bottom 2"

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 191 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2" Pitch of stays to ditto: Sides 4 1/2" x 8 1/2" Back 8 1/2" x 8 1/2"

Top 4 1/2" x 4 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 106 lbs Material of stays Steel Diameter at smallest part 1 1/8" Area supported by each stay 72 Working pressure by rules 110 lbs End plates in steam space: Material Steel Thickness 7/16"

Pitch of stays 14 1/2" x 14 1/2" How are stays secured With nuts Working pressure by rules 100 lbs Material of stays Steel Diameter at smallest part 1 1/8" bare

Area supported by each stay 211 Working pressure by rules 126 lbs Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 7/16" Greatest pitch of stays 8 1/2" Working pressure of plate by rules 22 1/2 lbs Diameter of tubes 3"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 13/16" Mean pitch of stays 13 1/2" Pitch across wide water spaces 13 1/2" Working pressures by rules 111 lbs 120 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 1/4" x 1 1/2" Length as per rule 31.6 Distance apart 4 1/4" Number and pitch of Stays in each 3: 4 1/2"

Working pressure by rules 104 lbs Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately no

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. 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

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

Thickness of water tubes

THE CANDE SHIPBUILDING & ENGINEERING CO. LIMITED

The foregoing is a correct description,

*John S. Dunlop* Secretary

Manufacturer.

Dates { During progress of work in shops - Survey while board vessel - - - Building } Total No. of visits

*See accompanying report.*

Is the approved plan of main boiler forwarded herewith

" " " donkey " "



010150-010162-0224

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

This Boiler has been built under special survey and the materials and workmanship are good. When completed it was tested by Hydraulic pressure to 200 lbs and found tight.

For recommendations see preceding sheet.

Certificate (if required) to be sent to  
(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

*Wm. Austin*  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Glasgow 11 NOV 1907

Assigned See attached report.

