

Rpt. 5.

REPORT ON BOILERS.

No. 24561

Port of Glasgow Received at London Office TUES. 5 JUN 1906

No. in Survey held at Glasgow Date, first Survey 4th Oct. 05 Last Survey 25 May 1905

Reg. Book. 54 Sup on the J. J. Drumlanrig (Number of Visits 28)

Master Do Built at Port Glasgow By whom built Russell & Co When built 1906

Engines made at Glasgow By whom made David Rowan & Co when made 1906

Boilers made at do By whom made do when made 1906

Registered Horse Power do Owners J. Chadwick & Son Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Steel Co of Scotland.

(Letter for record (S)) Total Heating Surface of Boilers 1220 Is forced draft fitted No No. and Description of Boilers One Single Ended Working Pressure 100 lb Tested by hydraulic pressure to 200 lb Date of test 2.5.06

No. of Certificate 8057 Can each boiler be worked separately — Area of fire grate in each boiler 38.8 sq ft No. and Description of safety valves to each boiler Two Spring Area of each valve 7 sq in Pressure to which they are adjusted 105 lb

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 on deck Mean dia. of boilers 11.6 in Length 10.0 in

Material of shell plates steel Thickness 3 1/2 in Range of tensile strength 28632 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R.L. long. seams T.R.L. Diameter of rivet holes in long. seams 1 1/16 in Pitch of rivets 3.395 in

Lap of plates or width of butt straps 6 1/2 in Per centages of strength of longitudinal joint: rivets 72.2 plate 72.4 Working pressure of shell by rules 100 lb Size of manhole in shell 16 x 12 in Size of compensating ring 2-7 x 2-3 in No. and Description of Furnaces in each boiler 2 Plain Material steel Outside diameter 3.578 in Length of plain part 76 in Thickness of plates: crown 1 1/32 in bottom 1 1/32 in

Description of longitudinal joint weld No. of strengthening rings None Working pressure of furnace by the rules 102 Combustion chamber plates: Material steel Thickness: Sides 1/2 in Back 1/2 in Top 1/2 in Bottom 1 1/16 in Pitch of stays to ditto: Sides 9 x 8 in Back 9 x 8 1/2 in

Top 9 x 8 1/2 in If stays are fitted with nuts or riveted heads nuts Working pressure by rules 100 Material of stays steel Area at smallest part 99 sq in Area supported by each stay 76 sq in Working pressure by rules 104 End plates in steam space: Material steel Thickness 3/4 in

Pitch of stays 15 3/4 in How are stays secured D. nuts Working pressure by rules 100 Material of stays steel Area at smallest part 2.1

Area supported by each stay 244 sq in Working pressure by rules 110 Material of Front plates at bottom steel Thickness 3/4 in Material of Lower back plate steel Thickness 3/4 in Greatest pitch of stays 13 1/4 in Working pressure of plate by rules 140 Diameter of tubes 3 1/4 in

Pitch of tubes 4 1/2 x 4 3/8 in Material of tube plates steel Thickness: Front 3/4 in Back 7/8 in Mean pitch of stays 11 1/8 in Pitch across wide water spaces 13 1/4 in Working pressures by rules 115 lb Girders to Chamber tops: Material steel Depth and thickness of girder at centre 6 1/4 x 5 x 3 in Length as per rule 26 1/2 in Distance apart 8 1/4 in Number and pitch of Stays in each 2-9 in

Working pressure by rules 120 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. 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 foregoing is a correct description,
For David Rowan & Co Manufacturer.

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 —
" " " donkey " " —
" " " " " —

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

This boiler has been constructed under Special Survey and of good materials & workmanship. It has been fitted on board as stated Rpt 4.

MULTITUBULAR BOILERS

[illegible]

VERTICAL DONKEY BOILER

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

H Gardner-Smelt.
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Glasgow - 4 JUN 1908

Assigned

See accompanying report. Encl

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