

REPORT ON BOILERS.

No. 16879.
WED. JUN. 23 1915

Received at London Office

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Date of writing Report 17 June 1915 When handed in at Local Office 21 June 1915 Port of Greenock

Safety

No. in Survey held at Greenock Date, First Survey 19th May 1914 Last Survey 19 June 1915
 Reg. Book. on the SCREW STEAMER *Elviston* (Number of Visits 78) Gross 2908.
 Russell & Co. 677 Tons Net 1843.
 Master *Winn* Built at Port Glasgow By whom built Russell & Co. When built 1915
 Engines made at Greenock By whom made Rankin & Blackmore Ltd. When made 1915
 Boilers made at Greenock By whom made Rankin & Blackmore Ltd. When made 1915
 Registered Horse Power Owners *Union Oil Co Ltd & 5 others* Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Steel Coy of Scotland.*(Letter for record *S. (r)*) Total Heating Surface of Boilers 625 Sq. ft. Is forced draft fitted *No.* No. and Description ofBoilers 1: *Cylindrical mult. Single* Working Pressure 100 lb Tested by hydraulic pressure to 200 lb Date of test 11/3/15No. of Certificate 1216 Can each boiler be worked separately *✓* Area of fire grate in each boiler 26 Sq. ft. No. and Description ofsafety valves to each boiler 2: *Direct Spring loaded* Area of each valve 5.9 sq. in. Pressure to which they are adjusted 105 lbAre 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 9' 0" Length 9' 0"Material of shell plates *Steel* Thickness $\frac{1}{2}$ " Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged *No.*Descrip. of riveting: cir. seams *Lap Single* long. seams *Butt Strap* Diameter of rivet holes in long. seams $\frac{7}{8}$ " Pitch of rivets $5\frac{1}{8}$ " $5\frac{1}{8}$ "Lap of plates or width of butt straps 9 $\frac{1}{8}$ " Per centages of strength of longitudinal joint rivets 91.3 Working pressure of shell by rules 105 lb Size of manhole in shell 16" x 12" Size of compensating ring 25 $\frac{1}{4}$ " x 29 $\frac{1}{4}$ " x $\frac{1}{2}$ " No. and Description of Furnaces in eachboiler 2: *Plain* Material *Steel* Outside diameter 34" Length of plain part top 65" Thickness of plates crown $\frac{1}{2}$ " bottom $\frac{1}{2}$ "Description of longitudinal joint *Butt strap* No. of strengthening rings *None* Working pressure of furnace by the rules 122 lb Combustion chamberplates: Material *Steel* Thickness: Sides $\frac{1}{2}$ " Back $\frac{3}{32}$ " Top $\frac{1}{2}$ " Bottom $\frac{1}{16}$ " Pitch of stays to ditto: Sides 9" x 8 $\frac{1}{2}$ " Back 9 $\frac{1}{8}$ " x 8 $\frac{1}{8}$ "Top 9" x 8 $\frac{1}{2}$ " If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules 100 lb Material of stays *Steel* Diameter atsmallest part 1 $\frac{1}{2}$ " Area supported by each stay 46 sq. in. Working pressure by rules 102 lb End plates in steam space: Material *Steel* Thickness $\frac{1}{16}$ "Pitch of stays 16" x 14" How are stays secured *With nuts* Working pressure by rules 102 lb Material of stays *Steel* Diameter at smallest part 2 $\frac{1}{8}$ "Area supported by each stay 272 sq. in. Working pressure by rules 101 lb Material of Front plates at bottom *Steel* Thickness $\frac{1}{16}$ " Material ofLower back plate *Steel* Thickness $\frac{1}{16}$ " Greatest pitch of stays 9 $\frac{1}{8}$ " Working pressure of plate by rules 108 lb Diameter of tubes 3 $\frac{1}{4}$ "Pitch of tubes 4 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ " Material of tube plates *Steel* Thickness: Front $\frac{1}{16}$ " Back $\frac{3}{4}$ " Mean pitch of stays 8 $\frac{1}{2}$ " Pitch across widewater spaces 14" Working pressures by rules 161 lb 103 lb Girders to Chamber tops: Material *Steel* Depth and thickness ofgirder at centre 4" x 1" Length as per rule 26 $\frac{1}{4}$ " Distance apart 9" Number and pitch of Stays in each 2: 8 $\frac{1}{2}$ "Working pressure by rules 131 lb Superheater or Steam chest: *Not 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

The foregoing is a correct description,

RANKIN & BLACKMORE, LTD.,

H. Yarnier

Manufacturer.

Dates of Survey During progress of work in shops -- See accompanying Report.
 while building During erection on board vessel --

Is the approved plan of boiler forwarded herewith *Yes* ✓

Total No. of visits

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

This donkey boiler has been constructed under special survey in accordance with the approved Photo Print, tested by hydraulic pressure and found tight and sound. It has now been efficiently fitted on board the above named vessel.

Survey Fee ... £ : : When applied for, 191
 Travelling Expenses (if any) £ : : When received, 191

Committee's Minute

Assigned *See accompanying machinery repak*

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

GLASGOW

22 JUN. 1915

Lloyd's Register
Foundation

W906-0053