

REPORT ON BOILERS.

No. 16986.

Date of writing Report 30 March 1916 When handed in at Local Office 1 April 1916 Port of Greenock  
No. in Survey held at Greenock Date, First Survey 3rd Feb'y, 1915 Last Survey 1 April 1916  
Reg. Book. on the Steel Steamer Vennachar (Number of Visits 102) Gross Tons Net Tons  
Master Built at Greenock By whom built Greenock Steamship Co. Ltd. When built 1916.  
Engines made at By whom made when made  
Boilers made at Greenock By whom made Rankin & Blackmore Ltd. when made 1916.  
Registered Horse Power Owners Geo Rankin & Co. Port belonging to Glasgow.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Steel Co. of Scotland  
(Letter for record \$) Total Heating Surface of Boilers 131092 Is forced draft fitted in No. and Description of Boilers One single ended Working Pressure 120 lb. Tested by hydraulic pressure to 240 lb. Date of test 26 Nov 15  
26-28 No. of Certificate 1339 Can each boiler be worked separately Area of fire grate in each boiler 3842 No. and Description of  
26-30 safety valves to each boiler Two spring Area of each valve 7.07 sq. in. Pressure to which they are adjusted 125 lb.  
24-26 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 25 in. Mean dia. of boilers 12.0 Length 11.0  
Material of shell plates Mild Thickness 23/32 Range of tensile strength 28-32 Are the shell plates welded or flanged No  
15- Descrip. of riveting: cir. seams long. seams All chain All Diameter of rivet holes in long. seams 3/32 Pitch of rivets 5 1/2  
15- Lap of plates or width of butt straps 10 1/2 Per centages of strength of longitudinal joint rivets 83.2 % Working pressure of shell by rules 120 lb. Size of manhole in shell 16-12 Size of compensating ring 30-26 23/32 No. and Description of Furnaces in each boiler Two Main Material Mild Outside diameter 44 1/2 Length of plain part top 6.6 bottom 9.5 Thickness of plates crown 2 1/2 bottom 2 1/2  
Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 132 lb. Combustion chamber plates: Material Mild Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 17/16 Pitch of stays to ditto: Sides 8 1/2 7/8 Back 8 1/2 8  
Top 8 1/2 7/8 If stays are fitted with nuts or riveted heads No Working pressure by rules 135 lb. Material of stays Mild Diameter at smallest part 1.23 Area supported by each stay 6.45 Working pressure by rules 153 lb. End plates in steam space: Material Mild Thickness 89/64  
Pitch of stays 16 1/2 16 How are stays secured All nut Working pressure by rules 145 lb. Material of stays Mild Diameter at smallest part 4.5  
Area supported by each stay 28.55 Working pressure by rules 134 lb. Material of Front plates at bottom Mild Thickness 17/16 Material of lower back plate Mild Thickness 17/16 Greatest pitch of stays 14 Working pressure of plate by rules 226 lb. Diameter of tubes 5 1/2  
Pitch of tubes 4 1/2 4 1/2 Material of tube plates Mild Thickness: Front 15/16 Back 11/16 Mean pitch of stays 11 1/8 Pitch across wide water spaces 14 Working pressures by rules 160 lb. Girders to Chamber tops: Material Mild Depth and thickness of order at centre 8 1/2 14 1/2 Length as per rule 34.7 Distance apart 8 Number and pitch of Stays in each Three 7 1/2  
Working pressure by rules 122 lb. Superheater or Steam chest: how connected to boiler 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  
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
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. Manufacturer.

Dates During progress of work in shops - - - Same dates as on Machinery Report. Is the approved plan of boiler forwarded herewith Yes  
while During erection on board vessel - - - Total No. of visits 102

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Workmanship good.  
This Donkey Boiler has been constructed under special licence in accordance with the approved Anti-burst. Tested by hydraulic pressure, and efficiently fitted on board the above named steamer.

Survey Fee ... £ : : When applied for, 19.  
Travelling Expenses (if any) £ : : When received, 19.

James James.  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW - 6 APR. 1916

signed See accompanying machinery report.

