

# REPORT ON BOILERS.

No. 15461.

WED. 16 SEP 1908

Received at London Office

Date of writing Report 19 When handed in at Local Office 10<sup>th</sup> Sept. 1908. Port of Greenock.

No. in Survey held at Greenock Date, First Survey 10<sup>th</sup> Jan 1907 Last Survey 5<sup>th</sup> Sept 1908

Reg. Book. 134 on the SCREW STEAMER BANNOCKBURN. (Number of Visits 98) Tons { Gross 4935.63 Net 3153.75

Master H. A. Willett Built at Greenock. By whom built Russell & Co When built 1908

Engines made at Greenock By whom made Rankin & Blackmore when made 1908.

Boilers made at Greenock. By whom made Rankin & Blackmore. when made 1908.

Registered Horse Power Owners H. Shankland & Co Port belonging to Greenock.

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

(Letter for record S.) Total Heating Surface of Boilers 900 Is forced draft fitted No. No. and Description of Boilers One Cylindrical Single Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 24/6/08

No. of Certificate 900 Can each boiler be worked separately Yes Area of fire grate in each boiler 30 sq. ft. No. and Description of safety valves to each boiler 2: Spring loaded 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 10" Mean dia. of boilers 10'6" Length 9'6"

Material of shell plates Steel Thickness 9/16" 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 Straps Diameter of rivet holes in long. seams 3/4" Pitch of rivets 4 3/16"

Lap of plates or width of butt straps 4 1/8" Per centages of strength of longitudinal joint rivets 83.6 Working pressure of shell by rules 100 lbs plate 82.1

Size of manhole in shell 16 x 12" Size of compensating ring 29 1/2 x 25 x 5/8" No. and Description of Furnaces in each boiler 2: Plain Material Steel Outside diameter 34 15/16" Length of plain part 75" Thickness of plates 14"

Description of longitudinal joint Butt Straps No. of strengthening rings None Working pressure of furnace by the rules 109 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/32" Back 3/16" Top 1 1/32" Bottom 5/8" Pitch of stays to ditto: Sides 9 x 9" Back 10 x 10"

Top 9 x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 104 lbs Material of stays Steel Diameter at smallest part 1 3/4" Area supported by each stay 100 Working pressure by rules 118 lbs End plates in steam space: Material Steel Thickness 7/8"

Pitch of stays 18 x 18" How are stays secured Nuts & washers Working pressure by rules 109 lbs Material of stays Steel Diameter at smallest part 2 1/8"

Area supported by each stay 240 Working pressure by rules 127 lbs Material of Front plates at bottom Steel Thickness 1/16" Material of Lower back plate Steel Thickness 9/16" Greatest pitch of stays 10" Working pressure of plate by rules 109 lbs Diameter of tubes 3 1/2"

Pitch of tubes 4 3/4 x 4 3/4" Material of tube plates Steel Thickness: Front 1 1/8" Back 3/4" Mean pitch of stays 14 1/2" Pitch across wide water spaces 14 1/2" Working pressures by rules 155 lbs 100 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 4" x 1" Length as per rule 28" Distance apart 9" Number and pitch of Stays in each 2: 9"

Working pressure by rules 109 lbs Superheater or Steam chest: None 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 Manufacturer.

Dates of Survey } During progress of work in shops - } See accompanying Is the approved plan of boiler forwarded herewith Yes  
 while building } During erection on board vessel - - } Machinery report. Total No. of visits

## 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.  
For recommendations, see preceding sheet.

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

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

Committee's Minute GLASCOW 75-SEP-1908

Assigned See accompanying 6. B. 6  
Report.

