

## REPORT ON BOILERS.

No. 53068

WED. 12 JUN 1907

Date of writing Report 9. 6. 1907 When handed in at Local Office 11 JUN 1907 Port of Newcastle on Tyne.  
 No. in Survey held at S. Shields Date, First Survey Last Survey June 4<sup>th</sup> 1907  
 Reg. Book. s. s. Dan (Number of Visits) Gross 3628  
 on the Tons Net 2316

Master Built at S. Shields By whom built J. Redhead & Sons Ltd When built 1907. 6  
 Engines made at S. Shields By whom made J. Redhead & Sons Ltd when made 1907. 6  
 Boilers made at S. Shields By whom made J. Redhead & Sons Ltd when made 1907.  
 Registered Horse Power Owners J. Redhead & Partners Port belonging to Sukronik

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Spencer, Huston

(Letter for record (r)) Total Heating Surface of Boilers 703  $\text{ft}^2$  Is forced draft fitted ☒ No. and Description of

Boilers One cyl. mult. S. E. Working Pressure 80  $\text{lb}$ . Tested by hydraulic pressure to 160  $\text{lb}$ . Date of test 25. 6. 07

No. of Certificate 7467 Can each boiler be worked separately ☒ Area of fire grate in each boiler 26. 6  $\text{ft}^2$  No. and Description of

safety valves to each boiler 2. Spring Area of each valve 7. 068  $\text{in}^2$  Pressure to which they are adjusted 82  $\text{lb}$ .

Are they fitted with easing gear ☒ In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ☒

Smallest distance between boilers or uptakes and bunkers or woodwork On. D. K. Mean dia. of boilers 9'-6" Length 10'-0"

Material of shell plates S. Thickness  $\frac{9}{16}$ " Range of tensile strength  $\frac{27}{32}$  T. Are the shell plates welded or flanged ☒

Descrip. of riveting: cir. seams L. D. R. long. seams L. D. R. Diameter of rivet holes in long. seams  $\frac{17}{16}$ " Pitch of rivets 3"

Lap of plates or width of butt straps  $4\frac{3}{4}$ " Per centages of strength of longitudinal joint rivets 69.5  
 plate 68.75 Working pressure of shell by

rules 82.5  $\text{lb}$  Size of manhole in shell 16 x 12" Size of compensating ring 6 x  $\frac{9}{16}$ " No. and Description of Furnaces in each

boiler 2. Plain Material S. Outside diameter 36" Length of plain part top 80" Thickness of plates crown  $\frac{1}{2}$ "  
 bottom 80" bottom  $\frac{7}{8}$ "

Description of longitudinal joint L. S. R. No. of strengthening rings 1 Working pressure of furnace by the rules 93  $\text{lb}$  Combustion chamber

plates: Material S. Thickness: Sides  $\frac{9}{16}$ " Back  $\frac{9}{16}$ " Top  $\frac{9}{16}$ " Bottom  $\frac{7}{8}$ " Pitch of stays to ditto: Sides 9.3" Back 10.9  $\frac{1}{2}$ "

Top Palm Stay stays are fitted with nuts or riveted heads ☒ Working pressure by rules 115  $\text{lb}$  Material of stays I Diameter at

smallest part 1.48" Area supported by each stay 95  $\text{in}^2$  Working pressure by rules 109  $\text{lb}$  End plates in steam space: Material S. Thickness  $\frac{13}{16}$ "

Pitch of stays 19.17" How are stays secured D. N. W. Working pressure by rules 95  $\text{lb}$  Material of stays S. Diameter at smallest part 2.87"

Area supported by each stay 323  $\text{in}^2$  Working pressure by rules 96.5  $\text{lb}$  Material of Front plates at bottom S. Thickness  $\frac{13}{16}$ " Material of

Lower back plate S. Thickness  $\frac{13}{16}$ " Greatest pitch of stays 12" x 10" Working pressure of plate by rules 187  $\text{lb}$  Diameter of tubes 3  $\frac{1}{2}$ "

Pitch of tubes  $4\frac{3}{8}$ " Material of tube plates S. Thickness: Front  $\frac{13}{16}$ " Back  $\frac{11}{16}$ " Mean pitch of stays 16  $\frac{7}{16}$ " 8  $\frac{1}{2}$ " Pitch across wide

water spaces 16" Working pressures by rules 92  $\text{lb}$ . Girders to Chamber tops: Material ☒ Depth and thickness of

girder at centre Palm Stay Length as per rule Distance apart 15  $\frac{1}{2}$ " Number and pitch of Stays in each ☒

Working pressure by rules ☒ 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

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,

John Redhead & Sons Manufacturer.

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

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &amp;c. This Boiler has been

constructed under Special Survey. The materials and workmanship sound. It has been fitted on board the above vessel in a satisfactory manner.

Survey Fee ... £ 2 : 0 : 0 When applied for, 11 JUN 1907

Travelling Expenses (if any) £ : : : When received, 14. 6. 07 15/6/07

Committee's Minute

Assigned

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

FRI. 14 JUN 1907

Lloyd's Register Foundation

W97-0095