

REPORT ON BOILERS.

No. 7058

Received at London Office TUE 6-AUG 1918

When handed in at Local Office 1st Aug 1918 Port of NEWCASTLE-ON-TYNE
 Survey held at Helburn on Tyne Date, First Survey 29th Jan 1918 Last Survey 31st July 1918
 (Number of Visits 22) Gross Tons 209 Net Tons 79
 On the S. S. Onward.
 Built at Selby By whom built Cochrane & Sons When built 1905
 made at Hull By whom made C. D. Holmes & Co When made 1905
 made at Helburn on Tyne By whom made Palmers & Co When made 1918
 ed Horse Power 60 Owners, Howard Steam Towing Co Ltd Port belonging to Grimsby

TUBULAR BOILERS—MAIN, ~~HEATING~~ OR DONKEY.—Manufacturers of Steel
 or record 5) Total Heating Surface of Boilers 1155 sq ft Is forced draft fitted ☒ No. and Description of
 One Single Ended Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 21/6/18
 Certificate 9110 Can each boiler be worked separately ☒ Area of fire grate in each boiler 33 $\frac{1}{2}$ sq ft No. and Description of
 valves to each boiler 2 Direct Spring Area of each valve several Pressure to which they are adjusted 180 lb
 y fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ☒
 t distance between boilers or uptakes and bunkers or woodwork 9" Internal Mean dia. of boilers 12-0 Length 10-0
 l of shell plates Steel Thickness 1 $\frac{1}{32}$ Range of tensile strength 25/32 tons are the shell plates welded or flanged No
 . of riveting: cir. seams 2 R Lap long. seams 5 rivets Diameter of rivet holes in long. seams 1 $\frac{1}{16}$ Pitch of rivets 7 $\frac{1}{4}$ "
 plates or width of butt straps 16" Per centages of strength of longitudinal joint rivets 88.5% Working pressure of shell by
 91 lb Size of manhole in shell 16" x 12" Size of compensating ring 7" x 1 $\frac{1}{32}$ " No. and Description of Furnaces in each
 No plain Material Steel Outside diameter 42" Length of plain part top 5-11" Thickness of plates crown 25/32"
 bottom 8-5" Thickness of plates bottom 25/32"
 option of longitudinal joint Welded No. of strengthening rings ☒ Working pressure of furnace by the rules 187 Combustion chamber
 . Material Steel Thickness: Sides 5/8 Back 21/32 Top 5/8 Bottom 15/16 Pitch of stays to ditto: Sides 8 $\frac{1}{4}$ x 8 $\frac{1}{8}$ Back 8 $\frac{3}{4}$ x 8 $\frac{1}{8}$
 2 x 5 $\frac{1}{2}$ " stays are fitted with nuts or riveted heads Nuts Working pressure by rules 188 Material of stays Steel Diameter at
 st part 2-03 Area supported by each stay 75/20 Working pressure by rules 183 End plates in steam space: Material Steel Thickness 1 $\frac{1}{16}$ "
 of stays 16/2 x 16/2 How are stays secured Double nuts Working pressure by rules 186 Material of stays Steel Diameter at smallest part 5-05
 supported by each stay 2730 Working pressure by rules 192 Material of Front plates at bottom Steel Thickness 1" Material of
 back plate Steel Thickness 15/16 Greatest pitch of stays 13 x 8 $\frac{5}{8}$ Working pressure of plate by rules 264 Diameter of tubes 3 $\frac{1}{2}$ "
 of tubes 4 $\frac{7}{8}$ " Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 9 $\frac{3}{4}$ " Pitch across wide
 spaces 14" Working pressures by rules 183 lb Girders to Chamber tops: Material Steel Depth and thickness of
 at centre 8 $\frac{1}{2}$ x 1 $\frac{5}{8}$ " Length as per rule 32 $\frac{7}{16}$ " Distance apart 8 $\frac{1}{2}$ " Number and pitch of Stays in each No 8 $\frac{1}{2}$ "
 ing pressure by rules 182 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 ately 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
 fened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 ing pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

The foregoing is a correct description,
 A. Cameron per *[Signature]* Manufacturer.

es During progress of work in shops -- 1918 Is the approved plan of boiler forwarded herewith Yes
 reey work in shops -- 1918 and steel test immues Yes
 le During erection on board vessel -- 1918 Total No. of visits 22

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under special survey, the materials & workmanship are of good quality. It is to be forwarded to Grimsby to be fitted on board the S. S. Onward.

Survey Fee ... £ 3 : 17 : When applied for, 2 - AUG 1918
 Travelling Expenses (if any) £ : : When received, 27 Nov 1918

Fitted Dec '1918.
 See Encl Rept 10729
 G.H.
 George Murdoch
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute
 signed

FRI. 3-JAN. 1919