

Slid. Nph. 25895

Rpt. 5a.

REPORT ON BOILERS.

No. 8071

SAT. AUG. 16 1913

Received at London Office

Date of writing Report 14.8.13 1913 When handed in at Local Office 15.8.13 Port of Middlesbrough
 No. in Survey held at Stockton-on-Tees Date, First Survey 11th June Last Survey 8th Aug 1913
 Reg. Book. Supp 5 on the new steel S/S "SHABONE". (Number of Flots 14) Gross 5767 Tons }
 (S.S.N^o 643) Net 3230
 Master Red Built at Sunderland By whom built Sir Jas Laing & Sons When built 1913
 Engines made at Sunderland By whom made George Clark & Co (N^o 984) When made 1913
 Boilers made at Stockton By whom made Messrs Riley Bros Ltd (N^o 4485) When made 1913
 Registered Horse Power Owners Tank Storage & Tankage Co Ltd Port belonging to Sunderland

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Humeer & Sons

(Letter for record (S)) Total Heating Surface of Boilers 1190 \square Is forced draft fitted no No. and Description of Boilers One single ended Working Pressure 120 Tested by hydraulic pressure to 240 Date of test 8.8.13

No. of Certificate 5136 Can each boiler be worked separately yes Area of fire grate in each boiler 35 \square No. and Description of safety valves to each boiler two direct spring Area of each valve 7.07 \square Pressure to which they are adjusted 125

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 1-10 \square ^{Inside} dia. of boilers 11-0 Length 11-0

Material of shell plates steel Thickness 1/4 Range of tensile strength 28-32 Are the shell plates welded or flanged no
Descrip. of riveting: cir. seams 2 R. lap long. seams 2 B-2 Riv Diameter of rivet holes in long. seams 15/16 Pitch of rivets 5
Lap of plates or width of butt straps 9 x 1/4 Per centages of strength of longitudinal joint rivets 89.2 Working pressure of shell by plate 81.2

rules 122 Size of manhole in shell 16" x 12" Size of compensating ring 7 x 1/4 No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 40 Length of plain part 82 Thickness of plates 1/4 ^{bottom} 11/4 ^{mean} 7/4

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 127 Combustion chamber plates: Material steel Thickness: Sides 1/8 Back 1/2 Top 1/2 Bottom 13/16 Pitch of stays to ditto: Sides 7 7/8 Back 7 7/8

Top 7 7/8 7 7/8 stays are fitted with nuts or riveted heads nuts Working pressure by rules 124 Material of stays steel Diameter at smallest part 9/16 Area supported by each stay 62 Working pressure by rules 123 End plates in steam space: Material steel Thickness 27/32

Pitch of stays 15 3/4 15 3/4 How are stays secured nuts Working pressure by rules 126 Material of stays steel Diameter at smallest part 3/16
Area supported by each stay 248 Working pressure by rules 154 Material of Front plates at bottom steel Thickness 27/32 Material of Lower back plate steel Thickness 27/32 Greatest pitch of stays 12 x 7 7/8 Working pressure of plate by rules 221 Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 4 1/2 Material of tube plates steel Thickness: Front 27/32 Back 5/8 Mean pitch of stays 10 7/8 Pitch across wide water spaces 13 1/2 Working pressures by rules 128 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 1 1/2 Length as per rule 33 Distance apart 7 7/8 Number and pitch of Stays in each 3 @ 7 7/8

Working pressure by rules 144 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately yes

holes 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

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, RILEY BROS. (BOILERMAKERS) LIMITED, Manufacturer.

SURVEY REQUEST NO. 602 ATTACHED.

Dates of Survey while building } During progress of work in shops - - - } June 11, 12, 14, 18, 21, 24, 27, 30, 31, Aug 1, 8. Is the approved plan of boiler forwarded herewith yes
 } During erection on board vessel - - - } Oct. 7, 9, 21. Total No. of visits 14. 17

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results.
The boiler had been satisfactorily fixed on the upper deck of the vessel and its safety valves adjusted, as above, adjusting washers: - P 9/16 S 1 1/2

Survey Fee ... £ 3-19-0 When applied for, MONTHLY 191 A/c
 Travelling Expenses (if any) £ When received, 191

Wm Morrison Lewis & Davis
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. OCT. 31. 1913
 Assigned

