

## REPORT ON BOILERS.

Mbo. No. 5040

SAT. 15 JUN 1907

Received at London Office

Date of writing Report 10<sup>th</sup> May 1907 When handed in at Local Office 11<sup>th</sup> May 1907 Port of MIDDLESBROUGH-ON-TEES

No. in Survey held at Stockton Date, First Survey 9<sup>th</sup> April of Last Survey 1907

Reg. Book. 135 on the Main Boiler (No 3810) So. K. City of Glasgow (Number of Visits) Gross 88 Tons Net 14

Master Selby Built at Selby By whom built Lockhart & Sons When built 1907

Engines made at Colchester By whom made A. G. Mumford Ltd when made 1907

Boilers made at Stockton By whom made Riley Bros Ltd when made 1907

Registered Horse Power 6 Owners London & Peterhead S. F. Co. Ltd Port belonging to Peterhead

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—

Manufacturers of Steel J. Spencer & Son Ltd(Letter for record (S)) Total Heating Surface of Boilers 760 sq ft Is forced draft fitted No No. and Description ofBoilers One Cyl. Multi single ended Working Pressure 140 lb Tested by hydraulic pressure to 280 lb Date of test 10-5-07No. of Certificate 3919 Can each boiler be worked separately — Area of fire grate in each boiler 28.4 sq ft No. and Description ofsafety valves to each boiler Two Spring Area of each valve 3.14 sq in Pressure to which they are adjusted 143 lbsAre they fitted with easing gear Yes 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 4" Int'l Mean dia. of boilers 9'-6" Length 9'-0"Material of shell plates Steel Thickness 4" Range of tensile strength 28/32 Are the shell plates welded or flanged noDescrip. of riveting: cir. seams DRS long. seams JR.D.B.S. Diameter of rivet holes in long. seams 7/16" Pitch of rivets 5 1/8"Lap of plates or width of butt straps 13" x 7/16" Per centages of strength of longitudinal joint rivets 96 plate 81.75 Working pressure of shell byrules 140.5 Size of manhole in shell 12" x 16" Size of compensating ring 7" x 7/16" No. and Description of Furnaces in eachboiler 2 plain Material Steel Outside diameter 2'-11" Length of plain part top 5'-8" Thickness of plates crown 7/16" bottom 7'-10" bottom 7/16"Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 154 Combustion chamberplates: Material Steel Thickness: Sides 9/16" Back 1/2" Top 9/16" Bottom 3/4" Pitch of stays to ditto: Sides 8 3/4" x 8" Back 9 1/2" x 8 1/2"Top 8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 150 Material of stays Steel Diameter atsmallest part 3/8" Area supported by each stay 80.75 sq in Working pressure by rules 146 End plates in steam space: Material Steel Thickness 7/8"Pitch of stays 17 1/2" x 16" How are stays secured DR riv stays Working pressure by rules 140 Material of stays Steel Diameter at smallest part 2 3/8"Area supported by each stay 284 sq in Working pressure by rules 156 Material of Front plates at bottom Steel Thickness 7/8" Material ofLower back plate Steel Thickness 7/8" Greatest pitch of stays 11" x 8 1/2" Working pressure of plate by rules 275 Diameter of tubes 3 1/4"Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates Steel Thickness: Front 7/8" Back 2 1/2" Mean pitch of stays 9 5/8" Pitch across widewater spaces 13 1/2" Working pressures by rules 161 Girders to Chamber tops: Material Steel Depth and thickness ofgirder at centre 6 3/4" x 1 1/2" Length as per rule 2'-3" Distance apart 8" Number and pitch of Stays in each 2 8"Working pressure by rules 164 Superheater or Steam chest: how connected to boiler riveted Can the superheater be shut off and the boiler workedseparately no Diameter 2'-6" Length 2'-0" Thickness of shell plates 1/2" Material Steel Description of longitudinal joint SRD Diam. of rivetholes 13/16" Pitch of rivets 2" Working pressure of shell by rules 231 Diameter of flue ✓ Material of flue plates ✓ Thickness ✓If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness 3/4" How stayed Diagonal 2 staysWorking pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

FOR

The foregoing is a correct description,

RILEY BROS. (BOILERMAKERS) LIMITED.

Manufacturer.

Dates of Survey: During progress of work in shops - - - Feb 4. 14. 22. 28 May 1. 4. 10 Is the approved plan of boiler forwarded herewith retained for duplicate

while building: During erection on board vessel - - - Apr 9. 10. 23. 30 May 4 Total No. of visits —

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c. This boiler has been builtunder Special Survey. The materials and workmanship are good and efficient.This boiler has been fitted on board, tested under steam, found satisfactory and now eligible in my opinion to be classed with the notation of R. L. M. B. 6. 07 in the Register Book, as per machinery Rpt.Survey Fee ... .. When applied for, 20. 8. 1907 James BarclayTravelling Expenses (if any) £ 2 : 8 : 4 When received, 20. 8. 1907 R. D. Philston1/2 of survey fee to be credited to Middlesbrough

Committee's Minute

FRI. 2 AUG 1907

Assigned

all minute onWm Rpt 9213

Lloyd's Register Foundation

W1412-0201