

REPORT ON BOILERS.

No. 5060

Full. No. 19175
THUR. 11 JUL 1907

Received at London Office

Date of writing Report 24th May 1907 When handed in at Local Office 24th May 1907 Port of MIDDLESBROUGH-ON-TEES.No. in Survey held at Stockton Date, First Survey 9th April 1907 Last Survey 19

Reg. Book. on the Main Boiler (No. 3821) S. H. City of Belfast (Number of Visits) Tons Gross Net

Master Built at Selby By whom built Cochrane 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 Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—Manufacturers of Steel J. Spencer & Sons Ltd

(Letter for record (S)) Total Heating Surface of Boilers 760 ft^2 Is forced draft fitted No. and Description of

Boilers One Cyl. Mult. single ended Working Pressure 140 lb Tested by hydraulic pressure to 280 lb Date of test 16-5-07

No. of Certificate 3924 Can each boiler be worked separately Area of fire grate in each boiler 28.4 ft^2 No. and Description ofsafety valves to each boiler Two Spring Area of each valve 3.14 ft^2 Pressure to which they are adjusted 140 lb

Are 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. Mean dia. of boilers 9'-6" Length 9'-0"

Material of shell plates Steel Thickness $\frac{1}{2}$ " Range of tensile strength 28/32 Are the shell plates welded or flanged noDescrip. of riveting: cir. seams D.R.L. long. seams J.R.D.B.S. Diameter of rivet holes in long. seams $\frac{15}{16}$ " Pitch of rivets $5\frac{1}{8}$ "

Lap of plates or width of butt straps 13" x 16" Per centages of strength of longitudinal joint rivets 96 plate 81.75 Working pressure of shell by

rules 140.5 Size of manhole in shell 12" x 16" Size of compensating ring 7" x $\frac{1}{2}$ " 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 $\frac{1}{2}$ " bottom 7'-10" bottom $\frac{1}{2}$ "

Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 154 Combustion chamber

plates: Material Steel Thickness: Sides $\frac{7}{16}$ " Back $\frac{1}{2}$ " Top $\frac{7}{16}$ " Bottom $\frac{3}{4}$ " Pitch of stays to ditto: Sides $8\frac{1}{2}$ " x $8\frac{1}{2}$ " Back $8\frac{1}{2}$ " x $9\frac{1}{2}$ "Top $8\frac{1}{2}$ " x $8\frac{1}{2}$ " If stays are fitted with nuts or riveted heads nuts Working pressure by rules 150 Material of stays Steel Diameter atsmallest part $1\frac{3}{8}$ " Area supported by each stay 80.75 Working pressure by rules 146 End plates in steam space: Material Steel Thickness $\frac{7}{8}$ "Pitch of stays $1\frac{1}{2}$ " x $\frac{1}{2}$ " How are stays secured Drawn stay Working pressure by rules 140 Material of stays Steel Diameter at smallest part $2\frac{3}{8}$ "Area supported by each stay 284 Working pressure by rules 156 Material of Front plates at bottom Steel Thickness $\frac{7}{8}$ " Material ofLower back plate Steel Thickness $\frac{7}{8}$ " Greatest pitch of stays 11 " x $8\frac{1}{2}$ " Working pressure of plate by rules 275 Diameter of tubes $3\frac{1}{4}$ "Pitch of tubes $4\frac{1}{4}$ " x $4\frac{1}{4}$ " Material of tube plates Steel Thickness: Front $\frac{7}{8}$ " Back $\frac{3}{2}$ " Mean pitch of stays $9\frac{1}{8}$ " Pitch across widewater spaces $13\frac{1}{2}$ " Working pressures by rules 161 Girders to Chamber tops: Material Steel Depth and thickness ofgirder at centre $6\frac{3}{4}$ " x $1\frac{1}{2}$ " 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 worked

separately no Diameter 2'-6" Length 2'-0" Thickness of shell plates $\frac{1}{2}$ " Material Steel Description of longitudinal joint S.R.L. Diam. of rivetholes $\frac{13}{16}$ " Pitch of rivets 2" Working pressure of shell by rules 231 Diameter of flue Material of flue plates ThicknessIf stiffened with rings Distance between rings Working pressure by rules End plates: Thickness $\frac{3}{4}$ " How stayed 2 Stay

Working 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 1907: Apr 9-15-17 May 4-10-16

while building During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith duplicate

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. This boiler has been built

under Special Purvey. The materials and workmanship are good.

On completion it satisfactorily withstood the hydraulic test

The boiler fitted on board, tested under steam, found satisfactory, eligible in my opinion to be classed with the

Survey Fee ... £ 2 : 13 4 When applied for, 1907

Travelling Expenses (if any) £ : : When received, 20-8-1907

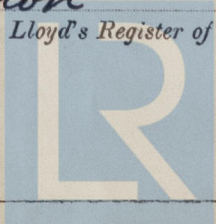
R.D. Shilston

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

Committee's Minute

FRI. 12 JUL 1907

Assigned

Lloyd's Register
Foundation
W1412-0128