

REPORT ON BOILERS.

Received at London Office

WED. SEP. 16. 1914

5a.

Writing Report 11.9.14 When handed in at Local Office 15.9.14 Port of Middlesbrough
 in Survey held at Stockton Date, First Survey June 26th 1914 Last Survey August 29th 1914
 Book. on the Donkey boiler 5/5 "STOCKWELL"
 Douglas Built at Sunderland By whom built Sir J. Laing & Sons Ltd When built 1914
 nes made at Wallsend By whom made North Eastern Marine Eng & B^{rs} Ltd When made 1914
 ers made at Stockton By whom made Riley Bros Ltd (No. 4740) When made 1914
 stered Horse Power Owners Wells Line Ltd Port belonging to Newcastle

ULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel John Spencer & Sons Ltd

ter for record (S) Total Heating Surface of Boilers 990 ft² Is forced draft fitted no No. and Description of
 lers One L.E. Cyl. Malt Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29.8.14

of Certificate 5370 Can each boiler be worked separately ✓ Area of fire grate in each boiler 28 $\frac{3}{4}$ ft² No. and Description of

ety valves to each boiler Two direct spring Area of each valve 3.140" Pressure to which they are adjusted 183 ✓

they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

allest distance between boilers or uptakes and bunkers or woodwork 13" Sub. dia. of boilers 10'-6" Length 10'-0"

aterial of shell plates Steel Thickness $\frac{7}{8}$ " Range of tensile strength 29-33 Are the shell plates welded or flanged No

scrip. of riveting: cir. seams BR. Lap long. seams BR. S. Rivets Diameter of rivet holes in long. seams $\frac{15}{16}$ " Pitch of rivets 7"

of plates or width of butt straps 15" x $\frac{3}{4}$ " Per centages of strength of longitudinal joint rivets 83.78 Working pressure of shell by plate 86.57

les 182 lbs Size of manhole in shell 19" x 15" Size of compensating ring 7" x 1" No. and Description of Furnaces in each

iller Two plain Material Steel Outside diameter 36" Length of plain part top 74 $\frac{7}{8}$ " Thickness of plates crown $\frac{23}{32}$ " bottom $\frac{13}{16}$ " Mean

escription of longitudinal joint Weld No. of strengthening rings ✓ Working pressure of furnace by the rules 187 lbs Combustion chamber

ates: Material Steel Thickness: Sides $\frac{23}{32}$ " Back $\frac{23}{32}$ " Top $\frac{23}{32}$ " Bottom $\frac{13}{16}$ " Pitch of stays to ditto: Sides 10" x 8" Back 8 $\frac{1}{2}$ " x 8 $\frac{1}{4}$ "

op 9" x 8" stays are fitted with nuts or riveted heads Nuts ✓ Working pressure by rules 217 Material of stays Steel Area Diameter at

allest part 1.73" Area supported by each stay 70" Working pressure by rules 198 End plates in steam space: Material Steel Thickness $\frac{13}{16}$ "

itch of stays 19 $\frac{3}{4}$ " x 14" are stays secured Nuts & W ✓ Working pressure by rules 248 Material of stays Steel Area Diameter at smallest part 5.05

area supported by each stay 281" Working pressure by rules 187 Material of Front plates at bottom Steel Thickness $\frac{13}{16}$ " Material of

ower back plate Steel Thickness $\frac{13}{16}$ " Greatest pitch of stays 14" x 8 $\frac{1}{4}$ " Working pressure of plate by rules 370 Diameter of tubes 3 $\frac{1}{4}$ "

Pitch of tubes 4 $\frac{5}{8}$ " x 4 $\frac{1}{2}$ " Material of tube plates Steel Thickness: Front $\frac{13}{16}$ " Back $\frac{13}{16}$ " Mean pitch of stays 11 $\frac{7}{8}$ " Pitch across wide

water spaces 14" Working pressures by rules 180 lbs Girders to Chamber tops: Material Steel Depth and thickness of

irder at centre 8" x 2" Length as per rule 28" Distance apart 9" Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 203 lbs Superheater or Steam chest: how connected to boiler None 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 ✓

SURVEY REQUEST
NO. 1002 ATTACHED.

FOR RILEY BROS. (BOILERMAKERS) LIMITED.
The foregoing is a correct description,

W. W. Riley DIRECTOR

Dates of Survey During progress of work in shops - - 1914 Jun. 26-30 Jul. 2-17. 20-23 29-31 Aug. 10-11-25-29 Is the approved plan of boiler forwarded herewith Yes
 while During Erection on board vessel - - - - - 16.17 Total No. of visits 12 14

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special Survey, is of good material and workmanship, and has been tested by hydraulic pressure with satisfactory results.

The boiler has been satisfactorily fixed on the upper deck and its safety valves adjusted as above. Washers F 7/16" A 1/2" Lewis & Davis.

Survey Fee ... £ 3 : 6 : When applied for, 191
 Travelling Expenses (if any) £ : : When received, 191

W. Morrison & J. Kerr
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. DEC. -4. 1914

Assigned