

# REPORT ON BOILERS.

Wpl. 28. 14522  
No. 9480

Received at London Office

Date of writing Report 1.8.12 19 12 When handed in at Local Office 1.8.12 19 12 Port of MIDDLESBROUGH-ON-TEES. TUE. AUG. -6. 1912

No. in Survey held at Stockton-on-Tees Date, First Survey 14<sup>th</sup> June Last Survey 17<sup>th</sup> July 19 12

of Safety Reg. Book. on the Steamer 'Bonfield' (Number of Visits 12) (S.S. No. 809) Tons } Gross }  
Net }

Master Built at W. Hartlepool By whom built Wm Gray & Co Ltd When built

Engines made at By whom made when made

Boilers made at Stockton By whom made Thos Riley Bros (No 4440) when made 1912

Registered Horse Power Owners Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Newen & Sons

(Letter for record (S)) Total Heating Surface of Boilers 750 sq ft Is forced draft fitted No No. and Description of

Boilers One single ended Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 23.7.12

No. of Certificate 4914 Can each boiler be worked separately  Area of fire grate in each boiler 28.4 sq ft No. and Description of

safety valves to each boiler Two Spring Area of each valve 7.07 sq in Pressure to which they are adjusted 100 lbs

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 in deck <sup>inside</sup> dia. of boilers 9'-6" Length 9'-0"

Material of shell plates steel Thickness 17/32 Range of tensile strength 28-32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams 2 Riv lap long. seams 2 Riv - 2 Riv Diameter of rivet holes in long. seams 13/16 Pitch of rivets 4 1/2"

Lap of plates or width of butt straps 8 1/2 x 17/32 Per centages of strength of longitudinal joint rivets 97.5 Working pressure of shell by

rules 103 Size of manhole in shell 16" x 12" Size of compensating ring 6" x 1" 9/16" 9/16" 9/16" No. and Description of Furnaces in each

boiler 2 plain Material steel Outside diameter 35" Length of plain part top 67" Thickness of plates crown 17/32

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 105 Combustion chamber

plates: Material steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 9" x 8" Back 9 1/8" x 8 1/8"

Top 9" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 103 Material of stays steel Diameter at

smallest part 1 1/8" Area supported by each stay 74.19 Working pressure by rules 107 End plates in steam space: Material steel Thickness 3/4"

Pitch of stays 14 1/2" to tubes How are stays secured nuts & washers Working pressure by rules 103 Material of stays steel Diameter at smallest part 2.87

Area supported by each stay 248 Working pressure by rules 120 Material of Front plates at bottom steel Thickness 3/4" Material of

Lower back plate steel Thickness 3/4" Greatest pitch of stays 13" x 8 1/8" Working pressure of plate by rules 175 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/4" Material of tube plates steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 10 1/8" Pitch across wide

water spaces 13 1/4" Working pressures by rules 106 Girders to Chamber tops: Material steel Depth and thickness of

girder at centre 6" x 1 1/4" Length as per rule 26" Distance apart 9" Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 113 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

FOR THE FOREGOING IS A CORRECT DESCRIPTION,  
RILEY BROS. (BOILERMAKERS) LIMITED  
J. Riley Manufacturer.

Dates of Survey } During progress of work in shops - - } 1912. June 14. 17. 19. 27. July 4. 6. 9. 12. 13. 17. 20. 23. Is the approved plan of boiler forwarded herewith yes  
while building } During erection on board vessel - - - }  
Total No. of visits 12

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. Boiler will secure on deck & safety valves admitted under steam as to working well.

Survey Fee ... £ 2-10-0 When applied for. MONTHLY A/C. SURVEY REQUEST NO. 167 ATTACHED.  
Travelling Expenses (if any) £ : : When received. 19

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

Committee's Minute FRI. OCT. 25. 1912  
Assigned

