

REPORT ON BOILERS.

Hpl. 28. 14522
No. 9480.

Received at London Office
Date of writing Report 1.8.12 When handed in at Local Office 1.8.12 Port of MIDDLESBROUGH-ON-TEES.
No. in Survey held at Stockton-on-Tees Date, First Survey 14th June Last Survey 17th July 19 12
of Safety Reg. Book. on the Steamer Bonfield (Number of Visits 12) Gross Tons (S.S. No 809) 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. Spence & Sons
(Letter for record (S)) Total Heating Surface of Boilers 750 sq 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 No. and Description of safety valves to each boiler Two Spring Area of each valve 7.07 sq Pressure to which they are adjusted 100 lb
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 on deck Inside dia. of boilers 9'-6" Length 9'-0"
Material of shell plates steel Thickness 12/32 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 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 12/32 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" 3/4" 9/16" rail No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 35" Length of plain part 67" Thickness of plates 12/32 crown 56 mean bottom 56 mean
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 1/2" x 8 1/2" 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 6 x 1/2 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 1/2" 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 1/2" 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 no 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

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 well secured on deck & safety valves adjusted 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 Engd.
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. OCT. 25. 1912

Assigned