

# REPORT ON BOILERS.

Nuc. No. 52345.

Ind. No. 4841

TUES FEB 12 1907

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office

No. in Survey held at Stockton Date, first Survey 30<sup>th</sup> October Last Survey Jan 24 1907  
 Reg. Book. (Number of Visits 13)  
 on the Donkey Boiler (No 3753) for Tyne Iron S B Co SS No 162 Tons { Gross 3556  
 Net 2288  
 Master Built at Newcastle By whom built Messrs Tyne Iron S. B. Co When built 1904  
 Engines made at Sunderland By whom made Messrs J Dickinson & Sons when made 1904  
 Boilers made at Stockton By whom made Riley Bros Ltd when made 1906  
 Registered Horse Power Owners Port belonging to

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

Letter for record ) Total Heating Surface of Boilers 820 sq ft Is forced draft fitted no No. and Description of Boilers One Cyl. Mult. single ended Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 14-12-06  
 No. of Certificate 3825 Can each boiler be worked separately  Area of fire grate in each boiler 29 sq ft No. and Description of safety valves to each boiler Two Spring Dia of each valve 2 3/4" Pressure to which they are adjusted 93 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 10" Int. Mean dia. of boilers 10'-0" Length 9'-6"  
 Material of shell plates Steel Thickness 35/64" Range of tensile strength 28/32 Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams DR lap long. seams DR DRB S Diameter of rivet holes in long. seams 13/16" Pitch of rivets 3 1/2"  
 Gap of plates or width of butt straps 8 1/2 x 9/16" Per centages of strength of longitudinal joint rivets 78.8 Working pressure of shell by rules 94 lbs Size of manhole in shell 16 x 21" Size of compensating ring 9 x 3 1/4" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 3'-0" Length of plain part top 6'-1 1/2" Thickness of plates crown } 9/16" bottom } 7/16"  
 Description of longitudinal joint welded No. of strengthening rings  Working pressure of furnace by the rules 95 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 9/16" Top 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 9 3/8 x 8" Back 8 1/4 x 10 1/8"  
 Top 8 x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 102 Material of stays Iron Diameter at smallest part 1 1/2" Area supported by each stay 115 sq" Working pressure by rules 91 End plates in steam space: Material Steel Thickness 13/16"  
 Pitch of stays 19 x 19" How are stays secured DR riv. stay Working pressure by rules 90 Material of stays Iron Diameter at smallest part 2 5/8"  
 Area supported by each stay 361 sq" Working pressure by rules 112 Material of Front plates at bottom Steel Thickness 13/16" Material of lower back plate Steel Thickness 13/16" Greatest pitch of stays 12 x 10 1/8" Working pressure of plate by rules 186 Diameter of tubes 3 1/4"  
 Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 13/16" Back 9/16" Mean pitch of stays 9 13/16" Pitch across wide water spaces 14" Working pressures by rules 117 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 x 1 1/4" Length as per rule 2'-2" Distance apart 9" Number and pitch of Stays in each Two 8"  
 Working pressure by rules 105 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  
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 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

## VERTICAL DONKEY BOILER— No. Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure  
 Tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves  
 No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler  
 Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength  
 Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets  
 Gap of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates  
 Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace  
 Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates  
 Radius of do. Stayed by Diameter of uptake Thickness of uptake plates  
 Thickness of water tubes

The foregoing is a correct description,

Riley Bros Ltd Manufacturer.

Dates of Survey while building  
 During progress of work in shops -- } 1906 Oct 30. Nov 1.5.13.16.22. Dec 5.8.12.14.  
 During erection on board vessel -- } Nuc. 1907 Jan 22.23.24.  
 Total No. of visits 13

Is the approved plan of main boiler forwarded herewith  
 " " " donkey " " yes



© 2020 Lloyd's Register Foundation

2510-861M  
W198-0152

