

Rpt. 5.

# REPORT ON BOILERS.

No. 4264

TUES. 7 APL 1908

Port of **MIDDLESBROUGH-ON-TEES.**

Received at London Office 10

No. in Survey held at Stockton Date, first Survey 9<sup>th</sup> August Last Survey 21<sup>st</sup> Sept 1905  
 Reg. Book. on the Donkey Boiler No 3578 S. S. "Ruth" (Number of Visits 4)  
 Master Built at Manpott By whom built W. Walker When built 1908  
 Engines made at Glasgow By whom made Hutton & Sons Ltd No 294 when made 1905  
 Donkey Boilers made at Stockton By whom made Riley Bros Ltd when made 1905  
 Registered Horse Power Owners W. Wang Port belonging to Zornberg

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record ) Total Heating Surface of Boilers Is forced draft fitted No. and Description of Boilers  
 Working Pressure Tested by hydraulic pressure to Date of test  
 No. of Certificate Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to each boiler  
 Area of each valve Pressure to which they are adjusted  
 Are they fitted with easing gear 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 Mean dia. of boilers Length  
 Material of shell plates Thickness Range of tensile strength Are the shell plates welded or flanged  
 Descrip. of riveting: cir. seams long. seams Diameter of rivet holes in long. seams Pitch of rivets  
 Lap of plates or width of butt straps Per centages of strength of longitudinal joint Working pressure of shell by rules  
 Size of manhole in shell Size of compensating ring No. and Description of Furnaces in each boiler  
 Material Outside diameter Length of plain part Thickness of plates crown bottom  
 Description of longitudinal joint No. of strengthening rings Working pressure of furnace by the rules Combustion chamber  
 plates: Material Thickness: Sides Back Top Bottom Pitch of stays to ditto: Sides Back  
 Top If stays are fitted with nuts or riveted heads Working pressure by rules Material of stays Diameter at smallest part  
 Area supported by each stay Working pressure by rules End plates in steam space: Material Thickness  
 Pitch of stays How are stays secured Working pressure by rules Material of stays Diameter at smallest part  
 Area supported by each stay Working pressure by rules Material of Front plates at bottom Thickness Material of Lower back plate  
 Thickness Greatest pitch of stays Working pressure of plate by rules Diameter of tubes  
 Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays Pitch across wide water spaces  
 Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre  
 Length as per rule Distance apart Number and pitch of Stays in each  
 Working pressure by rules Superheater or Steam chest: how connected to boiler 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

### VERTICAL DONKEY BOILER—No. one Description Vertical 2 cross tubes Manufacturers of steel J. Spencer & Sons Ltd

Made at Stockton By whom made Riley Bros (Boilermakers) Ltd When made 21.9.05 Where fixed Stokehold  
 Working pressure 80 lb tested by hydraulic pressure to 160 No. of Certificate 3517 Fire grate area 13 1/2 Description of safety valves single spring  
 No. of safety valves 1 Area of each 7.06 Pressure to which they are adjusted 80 lbs If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No  
 Dia. of donkey boiler 4'-9" Length 9-6 Material of shell plates Steel Thickness 3/8" Range of tensile strength 27/32  
 Descrip. of riveting long. seams D. riv. lap Dia. of rivet holes 13/16" Whether punched or drilled drilled Pitch of rivets 2 13/16"  
 Lap of plating 4 1/4 Per centage of strength of joint Rivets 83.4 Working pressure of shell by rules 97 lb Thickness of shell crown plates 15/32"  
 Radius of do. 5'-0" No. of Stays to do. 5 Dia. of stays 1 1/2" Diameter of furnace Top 3'-8 1/4" Bottom 4'-2 1/4" Length of furnace 4'-2 1/2"  
 Thickness of furnace plates 1/2" Description of joint S. r. lap Working pressure of furnace by rules 99 lb Thickness of furnace crown plates 15/32"  
 Stayed by as above Diameter of uptake 11" Thickness of uptake plates 7/16" Thickness of water tubes 3/8"

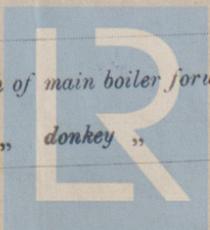
The foregoing is a correct description,

A. W. Riley Manufacturer.

1905 August 9. 28. Sept. 6. 12. 18. 20. 21

Dates of Survey while building  
 During progress of work in shops --  
 During erection on board vessel --  
 Total No. of visits (Initial) 4

Is the approved plan of main boiler forwarded herewith



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on J. B. rpt.

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

*This boiler has been built under special survey  
The materials and workmanship are good and efficient  
After satisfactorily withstanding the hydraulic test it has  
been sent to Glasgow for fitting on board.*

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee...	£	:	:	When applied for.
Special ... ..	£	:	:	19
Donkey Boiler Fee ...	£	2	2	When received.
Travelling Expenses (if any) £	:	:	:	19

*R.D. Shulston*

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

Committee's Minute

APR 7 1906

Assigned

*see minute on  
J.C. rpt.*



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