

REPORT ON BOILERS.

Mar No. 4247
Nov No. 50079
IHUK 15 FEB 1906

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

Received at London Office

No. in Survey held at Stockton Date, first Survey July 25 Last Survey Feb. 7 1906
 Reg. Book. Donkey Boiler (No. 3526) 5/5 Medomsley (Number of Visits 8) Tons } Gross 3048
 Master G. Dobson Built at Blyth By whom built Blyth S. B. Co. Ltd. When built 1906
 Engines made at Stockton By whom made Blair & Co. when made 1906
 Donkey Boilers made at Stockton By whom made Riley Bros (Boilermakers) Ltd when made 1905
 Registered Horse Power _____ Owners F. Carrick & Co. Port belonging to Newcastle

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

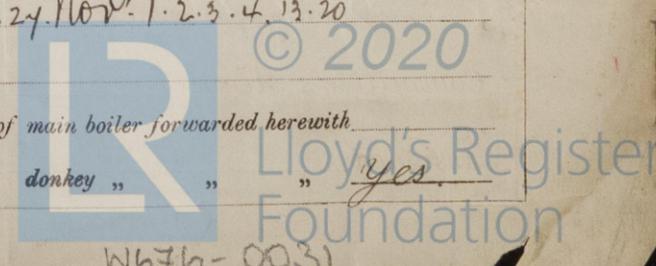
(Letter for record (S)) Total Heating Surface of Boilers 750 ft² Is forced draft fitted No No. and Description of Boilers One cyl. mult. single ended Working Pressure 100 lb. Tested by hydraulic pressure to 200 lb. Date of test 20.11.05
 No. of Certificate 3553 Can each boiler be worked separately ✓ Area of fire grate in each boiler 248 ft² No. and Description of safety valves Two sprung loaded Area of each valve 4.9 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 1'-6" Int'l Mean dia. of boilers 9'-6" Length 9'-0"
 Material of shell plates Steel Thickness 5/8" Range of tensile strength 27/32 Are the shell plates welded or flanged No
 Descrip. of riveting: cir. seams S R Lap long. seams Trel. riv. lap Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 3/4"
 Lap of plates or width of butt straps 6 1/2" Per centages of strength of longitudinal joint rivets 75 plate 75 Working pressure of shell by rules 102.5 Size of manhole in shell 16" x 21" Size of compensating ring 9" x 3/4" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 2'-10" Length of plain part top 5'-9 1/2" Thickness of plates crown 9" bottom 7'-9" bottom 7/16"
 Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 108 lb. Combustion chamber plates: Material Steel Thickness: Sides 15/32" Back 9/16" Top 15/32" Bottom 5/8" Pitch of stays to ditto: Sides 7" x 9" Back 9" x 10"
 Top 7" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 103 lb. Material of stays Steel Diameter at smallest part 1 1/8" Area supported by each stay 63" Working pressure by rules 125 End plates in steam space: Material Steel Thickness 27/32"
 Pitch of stays 16" x 18" How are stays secured On rivets Working pressure by rules 138 Material of stays Steel Diameter at smallest part 2 1/4"
 Area supported by each stay 288" Working pressure by rules 138 Material of Front plates at bottom Steel Thickness 27/32" Material of Lower back plate Steel Thickness 27/32" Greatest pitch of stays 11" x 9" Working pressure of plate by rules 243 Diameter of tubes 3 1/2"
 Pitch of tubes 4 3/4" x 4 1/2" Material of tube plates Steel Thickness: Front 27/32" Back 9/16" Mean pitch of stays 10 5/8" Pitch across wide water spaces 13 1/2" Working pressures by rules 105 lb. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 5 1/2" x 1 1/4" Length as per rule 2'-0" Distance apart 8" Number and pitch of Stays in each two 7"
 Working pressure by rules 114 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 _____

VERTICAL DONKEY BOILER— No. _____ Description _____ Manufacturers of steel _____
 Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure _____ tested by hydraulic pressure to _____ 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 _____
 Lap of plating _____ Per centage of strength of joint Rivets _____ Plates _____ 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 _____ Stayed by _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

The foregoing is a correct description, Riley Bros. (Boilermakers) Limited Manufacturer.

Dates of Survey while building: During progress of work in shops - - - 1905 July 25, August 26, Sept 12, 14, 25, 27, Nov 1, 2, 3, 4, 13, 20
 During erection on board vessel - - - Nov. Feb. 7
 Total No. of visits 13

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



W676-0031

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

This donkey boiler has been built under Special Survey. The materials and workmanship are good and efficient. After satisfactorily withstanding the hydraulic test the boiler has been despatched 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) £	:	:	:	7/12/1905

Will be
21.2.16

R.D. Shilston *A.C. Farriner*
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUES. 20 FEB 1906

Assigned



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Foundation