Newcastle No. 66410

ot. 5.

REPORT ON BOILERS.

No. 8413.

THU. MAY. 7 – 1914

Received at London Office

THU. JUL. 16. 1914

e of writing Report 5·5·14 191 When handed in at Local Office 6. 5. 1914 Port of MIDDLESBRO'

No. in g. Book. Survey held at Stockton-on-Tees Date, First Survey 20th February Last Survey 1st May 1914

on the S.S.K. "ABUS" (Number of Visits 15) (S.S. No. 290) Tons Gross 272 Net 101

ster Boro Built at South Shields By whom built Messrs J. P. Rennoldson & Sons When built 1914

gines made at By whom made When made

ilers made at Stockton By whom made Messrs Riley Bros Ltd. (No. 4683) When made

gistered Horse Power Owners Port belonging to

ULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer & Sons

etter for record (5) **Total Heating Surface of Boilers** 1080 ft Is forced draft fitted **No. and Description of ilers** One single ended **Working Pressure** 130 Tested by hydraulic pressure to 260 Date of test 1·5·14

of Certificate 5285 Can each boiler be worked separately **Area of fire grate in each boiler** ~~35~~ 34 ft No. and Description of ety valves to each boiler Area of each valve Pressure to which they are adjusted

they fitted with easing gear In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

allest distance between boilers or uptakes and bunkers or woodwork ~~Mean~~ Inside dia. of boilers 11'-6" Length 9'-6"

l of shell plates steel Thickness 11/16" Range of tensile strength 29¾-33 Are the shell plates welded or flanged no

o. of riveting: cir. seams 2·R·lap long. seams 2 B-3 Riv 4 Rivets per pitch Diameter of rivet holes in long. seams 15/16" Pitch of rivets 6¾"

~~plates or~~ width of butt straps 12½" × 11/16" Per centages of strength of longitudinal joint rivets 88·2 plate 86·07 Working pressure of shell by 139 Size of manhole in shell 19" × 15" Size of compensating ring 7 × 27/32 Mc Mil **No. and Description of Furnaces in each** 2 plain Material steel Outside diameter 44" Length of plain part top 70¾ bottom 96 Thickness of plates crown 11/16 bottom 23/32 mean

ption of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 131 Combustion chamber : Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 13/16 Pitch of stays to ditto: Sides 9" × 8" Back 9" × 8"

9" × 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 143 Material of stays steel ~~Diameter~~ area at st part 1·19 Area supported by each stay 72 Working pressure by rules 132 End plates in steam space: Material steel Thickness 27/32

of stays 16" × 15" How are stays secured nuts + 6 × ½ washers Working pressure by rules 140 Material of stays steel ~~Diameter~~ area at smallest part 3·26

supported by each stay 240 Working pressure by rules 141 Material of Front plates at bottom steel Thickness 27/32 Material of r back plate steel Thickness 27/32 Greatest pitch of stays 14" × 9" Working pressure of plate by rules 178 Diameter of tubes 3¼"

of tubes 4⅜" × 4½" Material of tube plates steel Thickness: Front 27/32 Back 11/16" Mean pitch of stays 10¼" Pitch across wide r spaces 14¼" Working pressures by rules 135 Girders to Chamber tops: Material steel Depth and thickness of r at centre 7" × 1¼" Length as per rule 27" Distance apart 8" Number and pitch of Stays in each 2 @ 8"

king pressure by rules 159 Superheater or Steam chest; ~~how connected to boiler~~ none Can the superheater be shut off and the boiler worked rately 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 iffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed king pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

RTICAL DONKEY BOILER— No. Description Manufacturers of steel

e at By whom made When made Where fixed **Working pressure**

d by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

f safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile gth Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates us of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace kness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown s Radius of do. Stayed by Diameter of uptake Thickness of uptake plates kness of water tubes

SURVEY REQUEST NO. 959 ATTACHED.

FOR RILEY BROS. (BOILERMAKERS) LIMITED. SECRETARY

The foregoing is a correct description,

Manufacturer.

During progress of work in shops - - } Feb 20. 28. Mar 3. 12. 14. 20. 23. 27. 30 Apl 15. 17. 22. 25. 27. May 1

During erection on board vessel - - } See Newcastle Report No. 66410

Total No. of visits 15.

Is the approved plan of ~~main~~ boiler forwarded herewith yes

" " " ~~donkey~~ " " "

002038-002050-0018

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

The amount of Entry Fee .. £ ✓ : :	When applied for,	
Special .. .. .. £ ✓ :	.....19.....	
~~Donkey~~ Boiler Fee .. .. £ 3 - 12 - 0	When received,	
Travelling Expenses (if any) £ ✓ : :	.....19.....	

FRI. JUL. 17. 1914

Committee's Minute

Assigned

Wm Morrison

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

Certificate (if required) to be sent to

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