

REPORT ON BOILERS.

No. 51597

MON. 17 SEP 1906

Port of Newcastle-on-Tyne Received at London Office SEP 6 1906
 No. in Survey held at South Shields Date, first Survey 1906 Last Survey 1906
 Reg. Book. S. S. KING IDWAL (Number of Visits) 3680
 on the S. S. KING IDWAL Tons { Gross 3680 Net 2821
 Master W. O. Williams Built at South Shields By whom built J. Radhead & Son When built 1906
 Engines made at South Shields By whom made J. Radhead & Son when made 1906
 Boilers made at " By whom made " when made 1906
 Registered Horse Power 326 Owners Phillips Phillips & Co. Port belonging to London

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

(Letter for record 2) Total Heating Surface of Boilers 1017 Is forced draft fitted no No. and Description of Boilers one single ended Working Pressure 100 lb Tested by hydraulic pressure to 200 lb Date of test 28.7.06
 No. of Certificate 7282 Can each boiler be worked separately ✓ Area of fire grate in each boiler 35 No. and Description of safety valves to each boiler Two spring loaded Area of each valve 7.06 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 15" Mean dia. of boilers 11-6 1/2" Length 10-1 1/2"
 Material of shell plates steel Thickness 2 1/2" Range of tensile strength 27/32 Are the shell plates welded or flanged no
 Descrip. of riveting: cir. seams Lap D.R long. seams Lap T.R Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 4 5/8"
 Lap of plates or width of butt straps 7 7/8" Per centages of strength of longitudinal joint 76.2 Working pressure of shell by rules 107 Size of manhole in shell 16 x 12 Size of compensating ring 7 1/4 x 7 1/4" No. and Description of Furnaces in each boiler 2 Plain Material steel Outside diameter 39 1/2" Length of plain part 77" Thickness of plates 9/16" crown 9/16" bottom 5/8"
 Description of longitudinal joint Lap S.R No. of strengthening rings 1 Working pressure of furnace by the rules 108 Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 5/8" Pitch of stays to ditto: Sides 9 1/2 x 9 1/2" Back 9 x 8 1/2" Top 9 1/4 x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 127 lb Material of stays iron Diameter at smallest part 1.99" Area supported by each stay 85.5" Working pressure by rules 175 End plates in steam space: Material S Thickness 1 1/2" Pitch of stays 15 x 18" How are stays secured D.N.W Working pressure by rules 107 Material of stays S Diameter at smallest part 3.67"
 Area supported by each stay 326" Working pressure by rules 114 Material of Front plates at bottom S Thickness 3/4" Material of Lower back plate S Thickness 1 1/16" Greatest pitch of stays 14 x 9" Working pressure of plate by rules 130 lb Diameter of tubes 3 1/4"
 Pitch of tubes 4 1/2 x 4 1/8" Material of tube plates S Thickness: Front 3/4" Back 3/4" Mean pitch of stays 1 1/2 x 9 1/4" Pitch across wide water spaces 14 1/2" Working pressures by rules 103 lb Girders to Chamber tops: Material S Depth and thickness of girder at centre 7 1/2 x 1 1/4" Length as per rule 25 1/16" Distance apart 9 1/4" Number and pitch of Stays in each 2 at 8 1/2"
 Working pressure by rules 198 lb 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. 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 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.

J. Radhead & Son Manufacturer.

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

Please see Report on Machinery.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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

This Boiler has been built under special Survey & fitted on board above vessel

S. E. KING LARL

South 8th St. f. Blackman & Son

Phillips & Phillips

f. Spencer & Son

1017

one single cylinder

two spring loaded

12"

2 1/2"

1/2" Lap T.R.

1/2" Lap T.R.

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Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special ...	£	:	:	15 SEP 1906
Donkey Boiler Fee ...	£	0	0	When received,
Travelling Expenses (if any) £	:	:	:	19

W. Lane. G. A. Hyden Joyce
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUES. 18 SEP 1906

Assigned