

# REPORT ON BOILERS.

No. 49618

Port of Newcastle

Received at London Office SAI. 4 NOV 1905

No. in Survey held at Jarrow Date, first Survey ✓ Last Survey Oct 23 1905  
 Reg. Book. " (Number of Visits ✓)  
 on the S.S. King B Leddyn Tons Gross 4387  
✓ Net 2852  
 Master G. R. Ritch Built at Jarrow By whom built Palmer's Co Ltd When built 1905  
 Engines made at Jarrow By whom made Palmer's Co Ltd when made 1905  
 Boilers made at do By whom made do when made 1905  
 Registered Horse Power 356 Owners King Line Ltd (Philippe Philippe & Co) Port belonging to London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spence & Sons

(Letter for record S.) Total Heating Surface of Boilers 1432 sq Is forced draft fitted no No. and Description of Boilers one single ended Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 1/8/05  
 No. of Certificate 7047 Can each boiler be worked separately ✓ Area of fire grate in each boiler 35.5 sq No. and Description of safety valves to each boiler Two, spring Area of each valve 5.94 sq Pressure to which they are adjusted 105 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 18" Mean dia. of boilers 12'-0 3/4" Length 10' 3"  
 Material of shell plates Steel Thickness 3/4" Range of tensile strength 29-32 Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams S. Lap long. seams S. Lap Diameter of rivet holes in long. seams 1" Pitch of rivets 3 1/4"  
 Lap of plates on width of butt straps 6" Per centages of strength of longitudinal joint rivets 82.2 Working pressure of shell by rules 100 lbs plate 69.2  
 Size of manhole in shell 16" x 12" Size of compensating ring 30" x 26" x 3/4" No. and Description of Furnaces in each boiler 2, plain Material Steel Outside diameter 3' 4 1/8" Length of plain part top 6'-10" Thickness of plates crown 9/16" bottom 6'-6" bottom 9/16"  
 Description of longitudinal joint S.B.S.S. Rivet No. of strengthening rings ✓ Working pressure of furnace by the rules 103 lbs Combustion chamber plates: Material Steel Thickness: Sides 17/32 Back 1/2" Top 17/32 Bottom 9/16" Pitch of stays to ditto: Sides 9" x 9 3/4" Back 8 5/8" x 8 5/8" Top 9 3/4" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 100 lbs Material of stays Steel Diameter at smallest part 1.01" Area supported by each stay 78 3/4 sq Working pressure by rules 102 lbs End plates in steam space: Material Steel Thickness 25/32" Diameter at smallest part 3.43"  
 Pitch of stays 17 1/2" x 16 1/2" How are stays secured S. n. w. Working pressure by rules 100 lbs Material of stays Steel Diameter at smallest part 3.43"  
 Area supported by each stay 288 sq Working pressure by rules 114 lbs Material of Front plates at bottom Steel Thickness 25/32" Material of Lower back plate Steel Thickness 25/32" Greatest pitch of stays 14" Working pressure of plate by rules 156 lbs Diameter of tubes 3 1/4"  
 Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 25/32" Back 19/32" Mean pitch of stays 11 1/4" Pitch across wide water spaces 14 3/4" Working pressures by rules 104 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 3/4" x 1 1/2" Length as per rule 27" Distance apart 9 3/8" Number and pitch of Stays in each 2-9"  
 Working pressure by rules 195 lbs 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 \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ 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 \_\_\_\_\_  
Palmer's Shipbuilding & Iron Co. Ltd.  
 The foregoing is a correct description. \_\_\_\_\_  
 \_\_\_\_\_ Manufacturer.

Engine Works Manager  
 Dates of Survey while building { During progress of work in shops - - }  
 { During erection on board vessel - - - }  
 Total No. of visits \_\_\_\_\_  
 Please see report attached.

Is the approved plan of main boiler forwarded herewith ✓



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

*This donkey boiler has been constructed under special survey & the materials & workmanship are found to be good.*

Certificates (if required) to be in the space below the space for Committee's Minute.

The amount of Entry Fee...	£	:	:	:	When applied for,
Special ... ..	£	:	:	:	13 NOV 1905
Donkey Boiler Fee ...	£	2	2	:	When received,
Travelling Expenses (if any) £		:	:	:	11. 11. 05

*13/11/05*

*Thomas Field*

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

Com  
Ass

Committee's Minute

TUES. 7 NOV 1905



© 2020

Lloyd's Register  
Foundation