

# REPORT ON BOILERS.

No. 64816

FRI. SEP. 12, 1913

Received at London Office

Date of writing Report 1<sup>st</sup> Sept. 1913 When handed in at Local Office

1-9-1913 Port of Newcastle-on-Tyne

No. in Survey held at Newcastle

Date, First Survey 10<sup>th</sup> Jun 1912 Last Survey 1<sup>st</sup> Sept. 1913

Reg. Book. on the S. S. "Pawnee"

(Number of Visits) Gross 4536 Tons Net 3002

Master Built at Newcastle By whom built Palmes Co When built 1913

Engines made at Newcastle By whom made Palmes Co No. 827 When made 1913

Boilers made at Hebburn No. 713 By whom made Palmes Co When made 1913

Registered Horse Power Owners Deutsch Amerikanische Petroleum Gesellschaft Port belonging to Hamburg

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

Letter for record S Total Heating Surface of Boilers 926 sq. ft. Is forced draft fitted No. No. and Description of

Boilers One, single-ended Working Pressure 120 lbs Tested by hydraulic pressure to 240 lbs Date of test 4-11-12

No. of Certificate 8405 Can each boiler be worked separately Yes Area of fire grate in each boiler 32 sq. ft. No. and Description of

Safety valves to each boiler Two, Spring Area of each valve 5.94 sq. in. Pressure to which they are adjusted 120 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 6'-0" Mean dia. of boilers 10'-6" Length 10'-0"

Material of shell plates Steel Thickness 25/32 Range of tensile strength 29-32 1/2 Are the shell plates welded or flanged No

Description of riveting: cir. seams S. Lap. long. seams S. Lap. Diameter of rivet holes in long. seams 1 3/32 Pitch of rivets 3 3/4

Gap of plates or width of butt straps 7 3/8 Per centages of strength of longitudinal joint rivets 82 Working pressure of shell by

Rules 122 lbs Size of manhole in shell 16" x 12" Size of compensating ring 2'-7" x 2'-3" x 25/32 No. and Description of Furnaces in each

Boiler 2, plain Material Steel Outside diameter 40 3/8 Length of plain part top 76" Thickness of plates crown 19/32 bottom 70"

Description of longitudinal joint S.B.S. Rivet No. of strengthening rings Working pressure of furnace by the rules 123 lbs Combustion chamber

Plates: Material Steel Thickness: Sides 9/16 Back 1/2 Top 9/16 Bottom 19/32 Pitch of stays to ditto: Sides 8 1/4 x 8 Back 8 x 7 1/2

Top 8 1/4 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 145 lbs Material of stays Steel Diameter at

Smallest part 1 1/8 Area supported by each stay 66 sq. in. Working pressure by rules 144 lbs End plates in steam space: Material Steel Thickness 27/32

Pitch of stays 16 1/2 x 5 How are stays secured S. N. & W. Working pressure by rules 135 lbs Material of stays Steel Diameter at smallest part 3.260

Area supported by each stay 236 sq. in. Working pressure by rules 142 lbs Material of Front plates at bottom Steel Thickness 27/32 Material of

Lower back plate Steel Thickness 27/32 Greatest pitch of stays 14 Working pressure of plate by rules 154 lbs Diameter of tubes 3

Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 27/32 Back 11/16 Mean pitch of stays 10 5/8 Pitch across wide

Water spaces 13 3/4 Working pressures by rules 144 lbs Girders to Chamber tops: Material Steel Depth and thickness of

Girder at centre 6 1/4 x 1 1/2 Length as per rule 26 9/16 Distance apart 8 Number and pitch of Stays in each 2 - 8 1/4

Working pressure by rules 148 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

Are they 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

The foregoing is a correct description of the boiler as built by Palmes Co. Ltd. Manufacturer.

General Manager, Engine Works Dept.

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits

Dates of Survey During progress of work in shops - - - See Machinery Report  
while building During erection on board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This donkey boiler has been constructed under special survey & the materials and workmanship are found to be good.

Survey Fee ... £ When applied for, 191

Travelling Expenses (if any) ... £ When received, 191

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

Committee's Minute

FRI. SEP. 12, 1913

Assigned

See Minute on this Rpt 64816 attached