

# REPORT ON BOILERS.

No. 64211

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Date of writing Report 8th May 1913 When handed in at Local Office MAY 8 1913 Port of Newcastle

No. in Survey held at Newcastle Date, First Survey 30th Nov 1911 Last Survey 5th May 1913

Reg. Book. on the S. S. "Kassoo" (Number of Visits) Gross 6127 Tons Net 3941

Master Built at Newcastle By whom built Palmer's Co When built 1913

Engines made at Newcastle By whom made Palmer's Co No. 825 When made 1913

Boilers made at do By whom made do When made 1913

Registered Horse Power Owners Bucknall Steamship Lines Ltd. Port belonging to North Shields

MULTITUBULAR BOILERS **MAIN, AUXILIARY OR DONKEY.** Manufacturers of Steel J. Spence & Sons & Palmer's Co

(Letter for record S) Total Heating Surface of Boilers 2961 sq ft Is forced draft fitted yes No. and Description of Boilers one, single-ended Working Pressure 220 lbs Tested by hydraulic pressure to 440 lbs Date of test 18-12-12

No. of Certificate 8425 Can each boiler be worked separately yes Area of fire grate in each boiler 62.2 sq ft No. and Description of safety valves to each boiler 2 - Spring Area of each valve 8.29 sq in Pressure to which they are adjusted 220 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 9'-0" Mean dia. of boilers 15'-7 7/16" Length 12'-5"

Material of shell plates Steel Thickness 1 9/16" Range of tensile strength 32-35 1/2 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams S. Lap long. seams HS J. Rivet Diameter of rivet holes in long. seams 1 19/32" Pitch of rivets 10"

Lap of plates or width of butt straps 23" Per centages of strength of longitudinal joint rivets 94 plate 84.06 Working pressure of shell by rules 258 lbs Size of manhole in shell 16" x 12" Size of compensating ring McNeill's No. and Description of Furnaces in each boiler 3 - Moisson's Material Steel Outside diameter 48 1/16" Length of plain part top 23" bottom 32" Thickness of plates crown 23" bottom 32"

Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 245 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 23/32" Top 1 1/16" Bottom 1 1/8" Pitch of stays to ditto: Sides 8 3/4" x 7 3/4" Back 8 3/4" x 8 3/8"

Top 8 1/2" x 7 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 238 lbs Material of stays Steel Diameter at smallest part 2.03" Area supported by each stay 74.3" Working pressure by rules 246 lbs End plates in steam space: Material Steel Thickness 1 13/32"

Pitch of stays 23" x 17" How are stays secured S. N. & W. Working pressure by rules 229 lbs Material of stays Steel Diameter at smallest part 9.82"

Area supported by each stay 391 sq in Working pressure by rules 262 lbs Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 1 5/16" Greatest pitch of stays 14" Working pressure of plate by rules 224 lbs Diameter of tubes 2 1/2"

Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates Steel Thickness: Front 1" Back 7/8" Mean pitch of stays 11" Pitch across wide water spaces 13" Working pressures by rules 226 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 1/2" x 1 5/8" Length as per rule 33" Distance apart 8 1/2" Number and pitch of Stays in each 3 - 7 3/4"

Working pressure by rules 221 lbs Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes

If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes

Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

The foregoing is a correct description, Palmer's Shipbuilding & Iron Co. Ltd. Manufacturer.

Is the approved plan of boiler forwarded herewith yes

Total No. of visits

Dates of Survey while building: During progress of work in shops See Weekly Report During erection on board vessel do

## GENERAL REMARKS

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

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

Survey Fee ... £ ... Machinery Report: When applied for, 191 ... When received, 191 ...

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

TUE. MAY 20 1913

Committee's Minute

Assigned

See Minute on New Rpt. 64211 attached

