

REPORT ON BOILERS.

No. 76277

Received at London Office FRI. 22 DEC. 1922

NEWCASTLE-ON-TYNE

When handed in at Local Office 21/12/1922 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Savon Date, First Survey 22 March 1921 Last Survey 20 November 1922

Reg. Book. 55286 on the steel BRITISH PREMIER (Number of Visits —) Gross 6946 Tons Net 3517

Master Built at Newcastle By whom built Palmer's Sh. & G. Co. When built 1922

Engines made at Newcastle By whom made Palmer's Sh. & G. Co. When made 1922

Boilers made at Newcastle By whom made Palmer's Sh. & G. Co. When made 1922

Registered Horse Power — Owners British Tanker Co. Ltd. Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons Ltd.

Letter for record S Total Heating Surface of Boilers 1102 sq ft Is forced draft fitted no No. and Description of Boilers two S.E. Cylindrical Working Pressure 120 lbs Tested by hydraulic pressure to 230 lbs Date of test 14.10.21

No. of Certificate 9614 Can each boiler be worked separately ✓ Area of fire grate in each boiler 27 sq ft No. and Description of Safety valves to each boiler two Spring-loaded Area of each valve 7.068 sq in Pressure to which they are adjusted 125 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 1'6" Mean dia. of boilers 10'6" Length 10'6"

Material of shell plates Steel Thickness 5/8" Range of tensile strength 32 ft Are the shell plates welded or flanged no

Description of riveting: cir. seams DR. Lap long. seams T.R. S.S. Diameter of rivet holes in long. seams 1/16" Pitch of rivets 4 7/8"

Gap of plates or width of butt straps 10 7/16" Per centages of strength of longitudinal joint rivets 93.8 Working pressure of shell by plate 85.9

Boiler 2 Deighton Material Steel Outside diameter 35 1/2" Length of plain part — Thickness of plates crown 3/8" bottom 1/8"

Description of longitudinal joint weld No. of strengthening rings — Working pressure of furnace by the rules 148.8 lbs Combustion chamber plates: Material Steel Thickness: Sides 19/32" Back 3/4" Top 19/32" Bottom 19/32" Pitch of stays to ditto: Sides 10" x 10" Back 10 1/2" x 9 1/2"

Top 10" x 8 1/2" If stays are fitted with nuts or riveted heads nut on rivet row Working pressure by rules 121.5 lbs Material of stays Steel Area at smallest part 1.448 sq in Area supported by each stay 129 sq in Working pressure by rules 125 lbs End plates in steam space: Material Steel Thickness 1"

Pitch of stays 24" x 15" How are stays secured D.N. & W. Working pressure by rules 129 lbs Material of stays Steel Area at smallest part 4.1080 sq in

Area supported by each stay 360 sq in Working pressure by rules 123 lbs Material of Front plates at bottom Steel Thickness 3/4" Material of lower back plate Steel Thickness 3/4" Greatest pitch of stays 14 1/2" x 9 1/2" Working pressure of plate by rules 155 lbs Diameter of tubes 3"

Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 12 1/2" x 8 1/2" Pitch across wide inter spaces 14 1/4" Working pressures by rules 138.5 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6" x 1" Length as per rule 25 7/8" Distance apart 8 1/2" Number and pitch of Stays in each two-10"

Working pressure by rules 127.2 lbs Steam dome: description of joint to shell None % of strength of joint —

Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

UPERHEATER. Type none Date of Approval of Plan — Tested by Hydraulic Pressure to —

Date of Test — Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —

Diameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

VERTICAL DONKEY BOILER— No. — Description — Manufacturers of steel —

Made at — By whom made — When made — Where fixed — Working pressure —

Tested by hydraulic pressure to — Date of test — 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 —

Percentage of plating — Per centage of strength of joint Rivets — Working pressure of shell by rules — Thickness of shell crown plates —

Dia. 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 —

Radius of do. — Stayed by — Diameter of uptake — Thickness of uptake plates —

Thickness of water tubes —

The foregoing is a correct description, Manufacturer. —

During progress of work in shops See Machinery Report.

During erection on board vessel —

Total No. of visits —

Is the approved plan of main boiler forwarded herewith —

For Palmer's Shipbuilding & Iron Works Ltd.

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W351-0048

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

This Boiler has been constructed under Special Survey. The workmanship and materials are sound and good. It has been efficiently installed on the vessel and its safety valves have been adjusted under steam to the approved working pressure. The Boiler is fitted for burning oil fuel F.P. above 150°F.

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

The amount of Entry Fee .. £	When applied for.
Special .. £19.....
Donkey Boiler Fee .. £	When received.
Travelling Expenses (if any) £19.....

R. H. Ames.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 29 DEC. 1922

Assigned