RETAIN

Rpt. 5a.

REPORT ON BOILERS.

No. 75875

Received at London Office AUG. 31 1922

Date of writing Report 19 When handed in at Local Office 28.8 1922 Port of NEWCASTLE ON TYNE

No. in Reg. Book. 36513 on the S.S. British General. Survey held at Jarrow on Tyne Date, First Survey 7 April 1921 Last Survey 28 August 1922 (Number of Visits Palmers No 926) Tons Gross 7360 Net 4350

Master Built at Jarrow By whom built Palmers Shipbuilding & Iron Co Ltd When built 1922

Engines made at Jarrow By whom made Palmers Shipbuilding & Iron Co Ltd When made 1922.

Boilers made at Jarrow By whom made Palmers Shipbuilding & Iron Co Ltd When made 1922.

Registered Horse Power 654 Owners British Tankers Co Ltd Port belonging to London

MULTITUBULAR BOILERS—[redacted] DONKEY.—Manufacturers of Steel J. Spencer & Sons Ltd

(Letter for record [redacted]) **Total Heating Surface of Boilers** 1102 ft Is forced draft fitted No **No. and Description of Boilers** One, Single Ended **Working Pressure** 120 lbs Tested by hydraulic pressure to 230 lbs Date of test 14/10/21

No. of Certificate 9615 Can each boiler be worked separately ✓ **Area of fire grate in each boiler** 27 ft No. and Description of safety valves to each boiler Two, direct spring Area of each valve 7.06 □" Pressure to which they are adjusted 125 lbs per □"

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~~ Inside dia. of boilers 10'-6" Length 10'-6"

Material of shell plates Steel Thickness 5/8" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams 2 R Lap long. seams Double straps 5 rivets Diameter of rivet holes in long. seams 11/16" Pitch of rivets 4 7/8"

~~Lap of plates on~~ width of butt straps 10 3/16" Per centages of strength of longitudinal joint rivets 93.8 plate 85.9 Working pressure of shell by rules 125 lbs Size of manhole in shell 16" x 12" Size of flanged compensating ring 39" x 33" x 5/8" **No. and Description of Furnaces in each boiler** Two, Deightons Material Steel Outside diameter 35 1/2" Length of plain part top ✓ bottom Thickness of plates crown bottom 3/8"

Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 148 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 Nuts on outside Working pressure by rules 121 Material of stays Steel Area at smallest part 1.44 1.72 2.03 □" Area supported by each stay 100 117 129 □" Working pressure by rules 125 End plates in steam space: Material Steel Thickness 1"

Pitch of stays 24" x 15" How are stays secured Double nuts & washers Working pressure by rules 129 Material of stays Steel Area at smallest part 4.1 □"

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

Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 12 3/4" x 8 1/2" Pitch across wide water spaces 14 1/4" Working pressures by rules 138 lbs per □" 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 122 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 ✓

SUPERHEATER. 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 ✓

For Palmers Shipbuilding & Iron Co., Ltd. The foregoing is a correct description, Manufacturer.

D. Kemp.
General Manager, Engine Works.

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

Is the approved plan of boiler forwarded herewith

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey. The materials and workmanship are of good quality. It has been securely fitted on board. It is fitted for oil fuel burning. F.P. above 150° F.

Survey Fee ... ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

Geo Murdoch & Alex Ainsor
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 1 SEP. 1922

Assigned

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