

REPORT ON BOILERS.

No. 76051
TUE. OCT. 17 1922

Received at London Office

Date of writing Report 19 When handed in at Local Office 13:10 19 Port of NEWCASTLE ON TYNE

No. in Survey held at Jarrow + Hebburn Date, First Survey 31 August/21 Last Survey 12 October 19 22

Reg. Book. 36564 on the S.S. British Sergeant. (Palmer No 931) Tons } Gross 6050.
Net 3520.

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

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

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

Registered Horse Power 593 Owners British Tanker Co Ltd Port belonging to London

MULTITUBULAR BOILERS ~~ON~~ DONKEY.—Manufacturers of Steel J. Spencer & Sons Ltd

(Letter for record 8) Total Heating Surface of Boiler 1102 sq 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 3/11/21

No. of Certificate 9624 Can each boiler be worked separately Yes Area of fire grate in each boiler 27 sq ft No. and Description of safety valves to each boiler 2, No, direct spring Area of each valve 7.06 sq in Pressure to which they are adjusted 125 lbs per sq in

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 in Man 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 5 rivets Diameter of rivet holes in long. seams 11/16" Pitch of rivets 4 7/8"

Temp. of plates on width of butt straps 10 3/16" Per centages of strength of longitudinal joint rivets 93.8. Working pressure of shell by rules 125 lbs. Size of manhole in shell 16" x 12" flanged plate 55.9.

boiler No, Dightons Material Steel Outside diameter 35 1/2" Length of plain part top 3/8" bottom 3/8" Thickness of plates crown } 3/8" bottom }

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 lbs. Material of stays Steel Area at smallest part 1.44 sq in Area supported by each stay 107 sq in 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 sq in

Area supported by each stay 360 sq in 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 1/4" x 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 2 1/4" x 8 1/2" Pitch across wide water spaces 14 1/4" Working pressures by rules 138 lbs per sq in 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 No, 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

Palmers Shipbuilding & Iron Co., Ltd.
The foregoing is a correct description,
S. Kemp
General Manager, Engine Works Manufacturer.

Dates of Survey } During progress of work in shops - - }
while building } During erection on board vessel - - }

Is the approved plan of boiler forwarded herewith Copy

Total No. of visits

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

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

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

E. Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 24 OCT. 1922

Lloyd's Register Foundation