

REPORT ON BOILERS

No. 76167

Received at London Office

20 NOV. 1922

Date of writing Report

19

When handed in at Local Office

7.11.

1922 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Lancaster

Date, First Survey

15 Aug 1921

Last Survey

16 Nov.

1922

Reg. Book.

55284 on the Steel

BRITISH OFFICER

(Number of Visits

Gross

Net

7450

Master

Built at Newcastle

By whom built

Palmer's Co. Ltd. 934

When built

1922

Engines made at

Newcastle

By whom made

Palmer's Co. Ltd. 934

When made

1922

Boilers made at

Newcastle

By whom made

Palmer's Co. Ltd.

When made

1922

Registered Horse Power

Owners

British Tanker Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Spencer & Arnold.

(Letter for record S. ✓) Total Heating Surface of Boilers 1102 sq ft ✓ Is forced draft fitted No. ✓ No. and Description of

Boilers One S. E. Cyl. Working Pressure 120 lbs. Tested by hydraulic pressure to 230 lbs. Date of test 13.3.22

No. of Certificate 9659 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 ft ✓ 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 7/8" ✓ Range of tensile strength 28/32 ✓ Are the shell plates welded or flanged No. ✓

Descrip. of riveting: cir. seams S. K. P. long. seams 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 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" ✓ Size of compensating ring 39" x 33" x 7/8" ✓ No. and Description of Furnaces in each

boiler Two Deighton Material Steel Outside diameter 35 1/2" Length of plain part top Thickness of plates crown 7/8" bottom 7/8"

Description of longitudinal joint Welded ✓ No. of strengthening rings ✓ Working pressure of furnace by the rules 148.8 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 outside row Working pressure by rules 121.5 Material of stays Steel Area at

smallest part 1.448 sq ft Area supported by each stay 117 sq ft Working pressure by rules 125 End plates in steam space: Material Steel Thickness 1" ✓

Pitch of stays 2 1/2" x 15" How are stays secured D. N. W. Working pressure by rules 129 Material of stays Steel Area at smallest part 4.1090

Area supported by each stay 360 sq ft 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 10 1/4" x 9 1/2" Working pressure of plate by rules 155 Diameter of tubes 3" ✓

Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 7/8" Mean pitch of stays 12 1/4" x 8 1/2" Pitch across wide

water spaces 14 1/4" Working pressures by rules 138.5 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 122.2 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

Gap of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates

Radius 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.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

See Machinery Report

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

W367-0097

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GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has been built under special survey. The materials & workmanship are sound & good. The Boiler satisfactorily sustained a hydraulic pressure test of 230 lbs/sq. in. has been efficiently installed on board & tried under steam. The safety valves were adjusted under steam to the safe working pressure. ✓

For
Palmers Shipbuilding & Iron Co., Ltd.

J. Kemp
 General Manager, Engine Works.

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

See Accompanying Report

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

Committee's Minute

FRI. NOV. 24 1922

Assigned

R. Lee Ames.

Engineer Surveyor to Lloyd's Register of Shipping



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