

REPORT ON BOILERS.

No. 76167

MON 20 NOV. 1922

Received at London Office

Date of writing Report

19

When handed in at Local Office

17.11.

1922 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Larion

Date, First Survey

15 Aug. 1921

Last Survey

16 Nov. 1922

Reg. Book.

55284 on the

Steel Co.

BRITISH OFFICER

(Number of Visits)

Gross

7400

Tons

Net

Master

Built at

Newcastle

By whom built

Palmer's Co. Ltd. 9/9/24

When built

1922

Engines made at

Newcastle

By whom made

Palmer's Co. Ltd. Eng. 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 & Sons Ltd.

(Letter for record

S.

Total Heating Surface of Boilers

8511 sq ft

Is forced draft fitted

Yes

No. and Description of

Boilers 3 S.E. Cyl. Mult?

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

20.1.22

No. of Certificate

9645

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

68 sq ft

No. and Description of

safety valves to each boiler

Two Spring-leaved

Area of each valve

11.045 sq in

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2'0"

Mean dia. of boilers

15'2 3/16"

Length

12'0"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength

29/32 ton

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

S.R. Lap.

long. seams

T.R. Q.B.S.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

10"

Lap of plates or width of butt straps

21 3/4"

Per centages of strength of longitudinal joint

rivets

93.43

Working pressure of shell by

rules

203

Size of manhole in shell

16"x12"

Size of compensating ring

flanges

plate

85.0

No. and Description of Furnaces in each

boiler

Two Sights

Material

Steel

Outside diameter

41 7/8"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

1 1/2"

Description of longitudinal joint

weld

No. of strengthening rings

Working pressure of furnace by the rules

207

Combustion chamber

plates: Material

Steel

Thickness: Sides

2 3/32"

Back

7/16"

Top

7/32"

Bottom

7/8"

Pitch of stays to ditto: Sides

10"x8 3/4"

Back

8"x8"

Top 10"x8 3/4"

If stays are fitted with nuts or riveted heads

nuts on outside

Working pressure by rules

202

Material of stays

Steel

Area at

smallest part

2.03 sq ft

Area supported by each stay

69.9 sq ft

Working pressure by rules

204

End plates in steam space: Material

Steel

Thickness

1 1/8"

Pitch of stays

18"x25"

How are stays secured

DN-W

Area supported by each stay

450 sq ft

Working pressure by rules

210

Material of Front plates at bottom

Steel

Thickness

1 1/2"

Material of

Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

14 1/4"x8"

Working pressure of plate by rules

234

Pitch of tubes

4 1/4"x4 1/4"

Material of tube plates

Steel

Thickness: Front

1 1/8"

Back

1 1/8"

Mean pitch of stays

12 1/4"x8 1/2"

Pitch across wide

water spaces

14 1/4"

Working pressures by rules

280

Girders to Chamber tops: Material

Steel

girders at centre

9"x1 3/4"

Length as per rule

32 1/16"

Distance apart

10"

Number and pitch of Stays in each

Three-8 1/4"

Working pressure by rules

212

Steam dome: description of joint to shell

None

% of strength of joint

Yes

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

UPPERHEATER. Type

Rotation

Date of Approval of Plan

25.2.21

Tested by Hydraulic Pressure to

400 lbs

Date of Test

17 July 1922

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

Yes

Diameter of Safety Valve

1 1/2"

Pressure to which each is adjusted

200 lbs

Is Easing Gear fitted

Yes

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

Lap 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

"

"

© 2021
Lloyd's Register
Foundation

Date of writing Report
No. in Survey
Reg. Book.
55284 on the
Master
Engines made at
Boilers made at
Registered Horse

MULTITUBULAR
(Letter for record)

Boilers *one*
No. of Certificate
safety valves to each
Are they fitted with
Smallest distance
Material of shell
Descrip. of rivets
Lap of plates or
rules *125 lbs*
boiler *Two Donkey*
Description of long
plates: Material
Top *10 x 8 1/2* If
smallest part *2 1/2*
Pitch of stays *2 1/2*
Area supported by
Lower back plate
Pitch of tubes
water spaces
girder at centre
Working pressure
Diameter
Pitch of rivets

UPERHEATER

Date of Test
Diameter of Safety

VERTICAL

Made at
tested by hydraulic
No. of safety valves
enter the donkey boiler
strength
Lap of plating
Radius of do.
Thickness of junction
plates
Thickness of water

Dates
of Survey
while
building
During work
During board
Total

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

These boilers have been built under special licence. The materials and workmanship are sound & good. They satisfactorily sustained a hydraulic pressure test of 350 lbs/sq. in. have been efficiently installed on board and tried under steam. The safety valves of the boilers & super heaters have been adjusted under steam to their safe working pressure.

For
Palmers Shipbuilding & Iron Co., Ltd.
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.)

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 Arncliffe
Engineer Surveyor to Lloyd's Register of Shipping