

REPORT ON BOILERS.

No. 814 33

REMARKS.

Received at London Office

10 JUN 1927

Sitting Report

192

When handed in at Local Office

31-5

192

Port of

Newcastle-on-Tyne

Survey held at

Wallsend

Date, First Survey

18 Nov. 1925

Last Survey

26 May

1927

on the

New Steel M. & Pecten

(Number of Visits)

Gross

Net

Built at

Tarrow

By whom built

Palmer's Shipyard Ltd

Yard No.

955

When built

1924

made at

Newcastle-on-Tyne

By whom made

North Eastern Marine Eng. Co. Ltd.

Engine No.

2615

When made

1924

made at

Newcastle-on-Tyne

By whom made

North Eastern Marine Eng. Co. Ltd.

Boiler No.

2615

When made

1924

Horse Power

1204

Owners

Anglo Saxon Petroleum Oil Co Ltd

Port belonging to

London

TITUBULAR BOILERS—~~MAIN~~, ~~AUXILIARY~~, OR DONKEY.

Constructors of Steel

David Colville & Sons, Ltd.

(Letter for Record

S

Heating Surface of Boilers

2372 sq ft

Is forced draught fitted

yes

Coal or Oil fired

oil

Description of Boilers

Two single-ended cylindrical

Working Pressure

180 lbs

by hydraulic pressure to

320 lbs

Date of test

22.7.26

No. of Certificate

117

Can each boiler be worked separately

yes

Firegrate in each Boiler

30 sq ft

No. and Description of safety valves to each boiler

Two spring-loaded

each set of valves per boiler

per Rule 9.020"

as fitted

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

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

yes

distance between boilers or uptakes and bunkers or woodwork

On main deck

Is oil fuel carried in the double bottom under boilers

yes

distance between shell of boiler and tank top plating

2'-10"

Is the bottom of the boiler insulated

yes

internal dia. of boilers

10'-6"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

Diameter of rivet holes in

circ. seams

1 1/16"

long. seams

3/32"

Pitch of rivets

3 1/2"

Percentage of strength of circ. end seams

plate

69.6

rivets

47.5

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate

85.9

rivets

94.5

combined

90.6

Working pressure of shell by Rules

180 lbs

No. and Description of Furnaces in each Boiler

Two - Reiphen

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

33 7/8"

Thickness of plates

crown

7/16"

bottom

7/16"

Description of longitudinal joint

weld

Working pressure of furnace by Rules

185 lbs

Material

Steel

Tensile strength

26-30 tons

Thickness

1"

Pitch of stays

17 1/2" x 13 1/2"

Working pressure by Rules

188 lbs

Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stay tubes in nests

7 3/8"

Pitch across wide water spaces

14"

Working pressure

front

195 lbs

back

305 lbs

Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

Length as per Rule

27"

Distance apart

8 3/4"

No. and pitch of stays

Working pressure by Rules

193 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

15/16"

Sides

8 1/2" x 7 3/8"

Back

8 1/2" x 8"

Top

8 3/4" x 7 3/8"

Are stays fitted with nuts or riveted over

welded

Working pressure by Rules

190 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

1"

Working pressure

14"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

298 lbs

Main stays: Material

Steel

Tensile strength

28-32 tons

At body of stay

2 1/4"

No. of threads per inch

six

Area supported by each stay

236.25 sq in

Working pressure by Rules

181 lbs

Screw stays: Material

Steel

Tensile strength

26-30 tons

At turned off part

1 1/2"

No. of threads per inch

nine

Area supported by each stay

68.9 sq in

Working pressure by Rules 182 1/2 Are the stays drilled at the outer ends no. ✓ Margin stays: Diameter { At turned off part, 1 3/4 or Over threads 1 3/4 ✓

No. of threads per inch nine ✓ Area supported by each stay 90 sq Working pressure by Rules 202 1/2

Tubes: Material Iron ✓ External diameter { Plain 2 3/4 Stay 2 3/4 ✓ Thickness { 1/16 1/4 ✓ No. of threads per inch nine ✓

Pitch of tubes 4" x 3 3/8" ✓ Working pressure by Rules plain 275 1/2 stay 199 1/2 Manhole compensation: Size of opening 18" x 14" ✓

shell plate 18" x 14" ✓ Section of compensating ring 32 1/2" x 28 1/2" x 1" ✓ No. of rivets and diameter of rivet holes 32 - 1 1/16" ✓

Outer row rivet pitch at ends 9" ✓ Depth of flange if manhole flanged 3 1/2" ✓ Steam Dome: Material ✓

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater none. ✓ Manufacturers of { Tubes Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes. ✓

The foregoing is a correct description.

G. A. Stephens Manufacturer

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

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under special survey. Materials & Workmanship good. Hydraulic tests satisfactory. They are securely fixed in place in the vessel & their safety valves have been adjusted under steam.

Survey Fee £ See Machinery Report When applied for, 192

Travelling Expenses (if any) £ See Machinery Report When received, 192

William B. Lath

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 14 JUN 1927

Assigned See Minute on Ave Rpt
81433