

Rpt. 5a.

REPORT ON BOILERS.

No. 79675

-9 OCT 1925

Received at London Office

Date of writing Report

192

When handed in at Local Office

26/9/1925

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

Walker on Tyne

Date, First Survey

Sept 11th 1924

Last Survey

22 Sept

1925

on the

Motor Ship "British Petrol"

(Number of Visits)

Gross

639.2

Net

411.3

Master

Built at

Walker on Tyne

By whom built

James Hunter and
Wm. Richardson & Co. Ltd.

Yard No. 1196

When built 1925

Engines made at

Walker on Tyne

By whom made

James Hunter and
Wm. Richardson & Co. Ltd.

Engine No. 1196

When made 1925

Boilers made at

do

By whom made

do

Boiler No. 1196

When made 1925

Nominal Horse Power

Owners

British Tanker Co

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Leighton's Patent Steel & Tube Co - James Hunter & Sons Ltd

(Letter for Record)

5

Total Heating Surface of Boilers

1430 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

One single ended multitubular

Working Pressure

150

Tested by hydraulic pressure to

275

Date of test

4.3.25

No. of Certificate

9902

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

None

No. and Description of safety valves to each boiler

2 direct spring

Area of each set of valves per boiler

per Rule

6.59

as fitted

7.07

Pressure to which they are adjusted

155

Are they fitted with easing gear

Yes

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

No main boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

18"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

11-4 1/2"

Length

11-6"

Shell plates: Material

steel

Tensile strength

30-34

Thickness

3/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

double exp

long. seams

Double butt straps

Diameter of rivet holes in

circ. seams

7/8"

long. seams

13/16"

Pitch of rivets

2.89"

plate

None

Percentage of strength of circ. end seams

plate

69.79

rivets

42.43

Percentage of strength of circ. intermediate seam

plate

None

Percentage of strength of longitudinal joint

plate

85.86

rivets

86.41

combined

89.12

Working pressure of shell by Rules

150

Thickness of butt straps

outer

3/8"

inner

1/2"

No. and Description of Furnaces in each Boiler

2 Leighton's

Material

steel

Tensile strength

26-30

Smallest outside diameter

3-1 1/2"

Length of plain part

top

-

bottom

-

Thickness of plates

crown

13/32"

bottom

3/2"

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

None

Working pressure of furnace by Rules

155

End plates in steam space: Material

steel

Tensile strength

26-30

Thickness

7/8"

Pitch of stays 16 1/2" x 14"

How are stays secured

Double nuts

Working pressure by Rules

152

Tube plates: Material

front

steel

back

do

Tensile strength

26-30

Thickness

7/8"

Mean pitch of stay tubes in nests

9.375"

Pitch across wide water spaces

13 1/2" x 7 1/2"

Working pressure

front 159

back 156

Girders to combustion chamber tops: Material

steel

Tensile strength

28-32

Depth and thickness of girder

at centre

7 3/4" x 1 1/4"

Length as per Rule

29 3/2"

Distance apart

9 1/2"

No. and pitch of stays

in each

2-9"

Working pressure by Rules

152

Combustion chamber plates: Material

steel

Tensile strength

26-30

Thickness: Sides

7/8"

Back

3/2"

Top

7/8"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 1/2" x 9 1/2"

Back

9" x 8"

Top

9 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

150

Front plate at bottom: Material

steel

Tensile strength

26-30

Thickness

7/8"

Lower back plate: Material

steel

Tensile strength

26-30

Thickness

7/8"

Pitch of stays at wide water space

13 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

210

Main stays: Material

steel

Tensile strength

28-32

Diameter

At body of stay,

or

Over threads

3 1/2"

No. of threads per inch

6

Area supported by each stay

23/2"

Working pressure by Rules

150

Screw stays: Material

steel

Tensile strength

26-30

Diameter

At turned off part,

or

Over threads

1 7/8" x 1 1/2"

No. of threads per inch

9

Area supported by each stay

90.25

Working pressure by Rules ²⁵ 167.8 Are the stays drilled at the outer ends ²⁰ No Margin stays: Diameter { At turned off part, or Over threads 157.8

No. of threads per inch 9 Area supported by each stay ^{940"} Working pressure by Rules 154.4

Tubes: Material Iron External diameter { Plain ^{2 1/2"} Stay ^{2 1/2"} Thickness { 10 W.G. 3/8" x 3/16" No. of threads per inch 9

Pitch of tubes ^{3 1/4" x 3 1/4"} Working pressure by Rules 229.4 Manhole compensation: Size of opening in shell plate ^{20" x 16"} Section of compensating ring ^{7 1/8" x 3/4" Flanged} No. of rivets and diameter of rivet holes ^{32 - 1 1/8"}

Outer row rivet pitch at ends 8" Depth of flange if manhole flanged ^{2 1/2"} Steam Dome: Material None fitted

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 fitted 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 casing 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

The foregoing is a correct description,
SWAN, HUNTER & WIGHAM RICHMOND, MANUFACTURERS.

G. F. Placely Manufacturer.

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

see Mach 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.)

This Boiler built under Special Survey, the material and workmanship found good and efficient.

The Boiler was tested at the makers works under 275 lb. "hydraulic pressure and found Satisfactory.

The Boiler fitted up on board the Vessel in boiler house forward of Engine Room, leading air to Engine Room at top platform - Boiler on top of Oil Fuel Bunker.

The Boiler is fitted for burning oil fuel. (9.25) flash point above 150° F, under forced draught.

The Safety Valves adjusted under steam 155 lb. - F.V.R 3/8" A.V.R 3/8" Casing gear fitted.

In our opinion this Vessel is now eligible for notation of + L.M.C. 9.25.

Survey Fee ... £ 11 : 8 : 0 When applied for, 7/10/1925

Travelling Expenses (if any) £ : : When received, 12/10/1925

L. G. Skelleros - Maudie Pitson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 13 OCT 1925

Assigned

See other report



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