

REPORT ON BOILERS.

No. 97170

Received at London Office

FEB 17 1939

Date of writing Report

19

When handed in at Local Office

16/2/39

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

Newcastle on Tyne

Date, First Survey

27/7/37

Last Survey

15/2/39. 19

on the

Steel motor vessel "BRITISH TENACITY"

(Number of Visits)

Gross 8439
Tons Net 4855

Master

Built at

Newcastle

By whom built

Swan Hunter & Wigham Richardson

Yard No. 1592

When built 1939-2

Engines made at

Sunderland

By whom made

Wm. Duxford & Sons Ltd

Engine No. 207

When made 1939

Boilers made at

Newcastle

By whom made

Swan, Hunter & Wigham Richardson Ltd

Boiler No. 1592

When made 1939

Nominal Horse Power

101.

Owners

British Tanker Co

Port belonging to

LONDON.

TWO FURNACE OIL FIRED.

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel

The Steel Coy. of Scotland.

(Letter for Record S)

Total Heating Surface of Boilers

1520 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil fired only

No. and Description of Boilers

One Single ended.

Working Pressure 150 lbs.

Tested by hydraulic pressure to

275 lbs.

Date of test

9/12/38

No. of Certificate

803

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

Oil fired

No. and Description of safety valves to each boiler

Two-24" Cockburn's Improved High lift Spring loaded

Area of each set of valves per boiler

per Rule 6.95 sq. ins.

as fitted 7.94

Pressure to which they are adjusted

150 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 main boilers

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-10"

Is oil fuel carried in the

bunker

double bottom under boilers

Yes

Smallest distance between shell of boiler and

top plating

2'-10"

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 tons

Thickness

3/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end DR lap

inter. none

long, seams

T.R. Dble butt straps

Diameter of rivet holes in

circ. seams 7/8"

long, seams 13/16"

Pitch of rivets

2.89"

5.75"

Percentage of strength of circ. end seams

plate 69.79

rivets 42.43

Percentage of strength of circ. intermediate seam

plate none

rivets

Percentage of strength of longitudinal joint

plate 85.86

rivets 86.41

combined 89.02.

Working pressure of shell by Rules

150 lbs.

Thickness of butt straps

outer 9/16"

inner 11/16"

No. and Description of Furnaces in each Boiler

Two. Deighton Corrugated

Material

Steel

Tensile strength

26 & 30 tons

Smallest outside diameter

37 3/16"

Length of plain part

top 2'-5"

bottom 2'-5" c.c. butt

Thickness of plates

crown 13/32"

bottom 7/8" c.c. bottom

Description of longitudinal joint

Furnaces fire welded.

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

None

Working pressure of furnace by Rules

155 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 & 30 tons

Thickness

7/8"

Pitch of stays 16 3/8" x 14"

How are stays secured

Dble nuts + washers

Working pressure by Rules

151 lbs.

Tube plates: Material

front Steel

back Steel

Tensile strength

26 & 30 tons

Thickness

7/8"

5/8"

Mean pitch of stay tubes in nests

9.375"

Pitch across wide water spaces

13 1/2" x 7 1/2"

Working pressure

front 158 lbs.

back 156 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

7 3/4" x 1 1/4"

Length as per Rule

29 21/32"

Distance apart

9 1/2"

No. and pitch of stays

in each

two @ 9"

Working pressure by Rules

152 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26 & 30 tons

Thickness: Sides

5/8"

Back

2 3/32"

Top

5/8"

Bottom

5/8"

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

NUTTED both ends.

Working pressure by Rules

150 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

7/8"

Pitch of stays at wide water space

14 3/4" x 9"

Are stays fitted with nuts or riveted over

Nuts.

Working Pressure

210 lbs.

Main stays: Material

Steel

Tensile strength

28 & 32 tons

Diameter

At body of stay, 2 1/2"

Over threads

others 2 1/4"

No. of threads per inch

6

Area supported by each stay (15 3/4" x 14 3/4") - 3.26 sq. ins.

Working pressure by Rules

151 lbs.

Screw stays: Material

Steel

Tensile strength

26 & 30 lbs.

Diameter

At turned off part, 1 5/8"

Over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay (9 1/2" x 9 1/2") - 1.73 sq. ins.

