

REPORT ON BOILERS.

No. 97437

Received at London Office

MAY 11 1939

Date of writing Report

19

When handed in at Local Office

10/5/1939 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Newcastle

Date, First Survey

27 July 1937

Last Survey

4/5/1939

on the *Steel Se. Vessel*

"BRITISH INFLUENCE"

(Number of Visits)

Gross 8431

Net 4855

Master

Built at

Newcastle

By whom built

Hoson, Hunter &
Wigham Richardson Ltd

Yard No. 1594

When built 1939-

Engines made at

Newcastle

By whom made

do.

Engine No. 1592

When made 1939

Boilers made at

Newcastle

By whom made

do.

Boiler No. 1594

When made 1939

Nominal Horse Power

140

Owners

British Tanker Co.

Port belonging to

LONDON

EXH. GAS / OIL FIRED.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Coy of Scotland

(Letter for Record 5)

Total Heating Surface of Boilers

2595 sq ft { OF 1375 }
EXH GAS 1220

Is forced draught fitted

Yes

Coal or Oil fired

oil fired and
such gas

No. and Description of Boilers

One Single Ended

Working Pressure

150 lbs

Tested by hydraulic pressure to

275 lbs

Date of test

14/2/39

No. of Certificate

808

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 2 3/4"

Improved High Lift Spring Loaded

Area of each set of valves per boiler

{ per Rule 9.85
as fitted 11.84

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

16"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

16"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

13' 4 1/4"

Length

11' 6"

Shell plates: Material

Steel

Tensile strength

30/34 tons

Thickness

7/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

{ end D.R. lap.
inter. none

long. seams T.R. All butt straps

Diameter of rivet holes in

{ circ. seams 1"
long. seams 1 1/16"

Pitch of rivets

{ 3.24"
6.625"

Percentage of strength of circ. end seams

{ plate 69.18
rivets 42.41

Percentage of strength of circ. intermediate seam

{ plate
rivets

Percentage of strength of longitudinal joint

{ plate 85.84
rivets 85.55
combined 88.80

Working pressure of shell by Rules

151 lbs

Thickness of butt straps

{ outer 21/32"
inner 25/32"

No. and Description of Furnaces in each Boiler

Two at wings: Doughton Corrugated.

Plain tube at centre back for access

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

37 3/16"

Length of plain part

{ top
bottom 2' 4" c.c. bottom

Thickness of plates

{ crown 13/32"
bottom 5/8" at c.c. bottom

Description of longitudinal joint

Furnaces: joints 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

1 1/2"

Pitch of stays 18" x 18"

How are stays secured

Dble nuts & washers

Working pressure by Rules

151.5 lbs

Tube plates: Material

{ front Steel
back

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 3/8"

Working pressure

{ front 159 lbs
back 156 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

7' 8" x 1 1/4"

Length as per Rule

30 21/32"

Distance apart

8 3/4" (max at centre)

No. and pitch of stays

in each

2 @ 9 3/8"

Working pressure by Rules

151 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

5/8"

Back

Cr 3/4" 23/32" Top 5/8"

Bottom 5/8"

Pitch of stays to ditto: Sides

9 1/2" x 9 5/8"

Back

9 x 9" Cr c.c.

Top 9 3/8" x 8 3/4"

Are stays fitted with nuts or riveted over

Remainder of back stays are riveted inside c.c. plates on outside

Working pressure by Rules

152 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

3/4"

Pitch of stays at wide water space

13 1/2" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

172 lbs

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

{ At body of stay, Two top stays 2 3/4"
Over threads others 2 7/8"

No. of threads per inch

6

Area supported by each stay

(18 x 18) - 4.57 sq ins.

Working pressure by Rules

155 lbs

Screw stays: Material

Steel

Tensile strength

26/30 tons

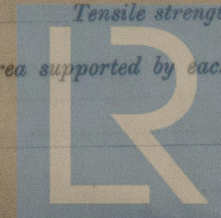
Diameter

{ At turned off part, 1 1/2" x 1 5/8"
Over threads

No. of threads per inch

9

Area supported by each stay

(9 3/8 x 8 3/4) - 1.45 sq ins.
c.c. tops

Lloyd's Register

W500-0130

Working pressure by Rules 155 lb. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 5/8" Over threads. 1 5/8" No. of threads per inch 9 Area supported by each stay (11 1/4" x 9") - 1.73 sq. in. Working pressure by Rules 152 lb. Tubes: Material IRON. External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 10 W.G. 3/8" x 5/16" No. of threads per inch 9 Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 229 lb. Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 8 1/4" x 7/8" x two No. of rivets and diameter of rivet holes 32 g 1/4" Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 2 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 forgings 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 forgings and 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 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. Manufacturer.

Dates of Survey { During progress of work in shops - - - During erection on board vessel - - - } See Machinery report Are the approved plans of boiler and superheater forwarded herewith 26/8/36 (If not state date of approval.) In 15th British Resolution Total No. of visits

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. British Resolution British Tenacity etc.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The Boiler has been built under Special Survey, in accordance with the Rules and approved plans, and the materials & workmanship are good. The Boiler is fitted on top of the oil fuel bunker in the Boiler Space forward of Engine Room having access from the top platform of the Engine Room. The Boiler is fitted for burning oil fuel flash point above 150°F. under forced draft, and also for waste Exhaust Gases. The Safety valves have been adjusted under steam to 150 lb per sq inch.

Survey Fee ... £ 44-0-0 When applied for, 6th Oct. 46. Travelling Expenses (if any) £ : : When received, 19.

A. Watt.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 23 MAY 1939 Assigned See M.V.C. 7.E. 97437