

REPORT ON BOILERS.

No. 96545

Received at London Office

AUG 13 1938

Date of writing Report

19

When handed in at Local Office

10/8/38

Port of NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

Newcastle on Tyne

Date, First Survey

4 Nov 1937

Last Survey

3 Aug 1938

on the

Steel motor tanker "REGENT TIGER"

(Number of Visits)

Tons

Gross 10177

Net 6184

Master

Built at

Newcastle

By whom built

Swan. Hunter &
Wigham Richardson Ltd

Hull No.

1545 When built 1938

Engines made at

Newcastle

By whom made

ditto

Engine No 1562

When made 1938

Boilers made at

ditto

By whom made

ditto

Boiler No 1562

When made 1938

Nominal Horse Power

269

Owners

Port belonging to LONDON.

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

Manufacturers of Steel

Appelby-Frodingham, & The Steel Company of Scotland

(Letter for Record

S.

Total Heating Surface of Boilers

4030 sq. ft

Is forced draught fitted

Yes

Coal or Oil fired

oil fired

No. and Description of Boilers

Two, Single Ended Multitubular

Working Pressure

180 lb.

Tested by hydraulic pressure to

320 lb

Date of test

22/3/38

No. of Certificate

770.

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 1/2" Cockburn's Improved High Lift.

Area of each set of valves per boiler

per Rule

6.45 sq. ins

as fitted

Pressure to which they are adjusted

180 lb

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' 3"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and

deck

35"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

13' 4 1/2"

Length

11' 0" mean

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

DR. lap.

long. seams

T.R. Dbl butt shape

Diameter of rivet holes in

circ. seams

1 1/8"

Pitch of rivets

3.438

Percentage of strength of circ. end seams

plate

67.27

rivets

43.16

Percentage of strength of circ. intermediate seam

plate

none

Percentage of strength of longitudinal joint

plate

85.937

rivets

86.94

combined

89.26

Working pressure of shell by Rules

180.19 lb.

Thickness of butt straps

outer

13/16"

inner

15/16"

No. and Description of Furnaces in each Boiler

Three Deighton Type

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

37 27/32"

Length of plain part

top

4' 2"

bottom

2' 5" c.c. butt

Thickness of plates

crown

3/64"

bottom

Description of longitudinal joint

Jure welded.

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

none

Working pressure of furnace by Rules

183 lb.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

Front 1 3/32"

Back 1 1/8"

Pitch of stays

18 1/4" x 16 5/8"

How are stays secured

double nuts

Working pressure by Rules

182 lb.

Tube plates: Material

front

Steel

back

Tensile strength

26 to 30 tons

Thickness

Front 1"

Back. Centre 25/32"

Wings 13/16"

Mean pitch of stay tubes in nests

10 5/8"

Pitch across wide water spaces

14" x 8 1/2"

Working pressure

front

186 lb

back

194 lb.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

at centre

8 1/2" x 1 1/4"

Length as per Rule

31 1/32"

Distance apart

8 1/2" max at Centre C.C.

No. and pitch of stays

in each

two @ 9 3/4"

Working pressure by Rules

183 lb

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

2 1/32"

Back

7/8"

Top

2 1/32"

Bottom

2 1/32"

Pitch of stays to ditto: Sides

9 3/4" x 8 7/16"

Back

8 3/4" x 8 1/2"

Top

9 3/4" x 8 7/16"

max at Centre C.C.

Are stays fitted with nuts or riveted over

with nuts

Working pressure by Rules

182 lb min

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

27/32"

Pitch of stays at wide water space

14 3/4" x 8 3/4" max

Are stays fitted with nuts or riveted over

with nuts.

Working Pressure

195 lb.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay,

or

Over threads

3" x 2 3/4"

No. of threads per inch

6

Area supported by each stay

(17 1/2" x 17 1/2") - 5 sq ins
= 302 sq ins

Working pressure by Rules

183 lb.

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part,

or

Over threads

1 7/8"

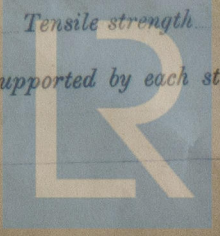
No. of threads per inch

9

Area supported by each stay

(9 3/4" x 8 7/16") - 1.7
= 80.3 sq ins

W462-0061

Lloyd's Register
Foundation

Working pressure by Rules 189 lb Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 5/8" + 1 3/4"
No. of threads per inch 9 Area supported by each stay $7 \times 1 7/8 = (8 \times 10 3/4) - 1.7 = 81.54 \text{ sq in}$ Working pressure by Rules 186 lb + 186 lb
Tubes: Material W. IRON External diameter { Plain 3' 7/8" Stay 3' 7/8" Thickness { 5/16" + 1/4" No. of threads per inch 9
Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 199 lb min Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 23 1/4" x 1 1/8" No. of rivets and diameter of rivet holes 32 of 1 3/8" dia.
Outer row rivet pitch at ends 9 7/8" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material None
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

For the foregoing is a correct description,
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Manufacturer.

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

See Machinery Rpt

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

ho. 14/6/38

Total No. of visits

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No. ✓

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

These Boilers have been constructed under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. They have been fitted in the Main Engine Room on the Tween deck at its forward end. The safety valves have been adjusted under steam to 180 lbs per sq inch and the accumulation tests were satisfactory.

Survey Fee ... £
Travelling Expenses (if any) £

When applied for, 19
When received, 19

A Watt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 23 AUG 1938

Assigned

See F.C. Rpt.



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