

REPORT ON BOILERS.

No. 33126

Received at London Office

23 JUN 1941

Date of writing Report

192

When landed in at Local Office 16 June 1941 Port of SUNDERLAND.

No. in Survey held at
of Book.

SUNDERLAND.

Date, First Survey

Last Survey

11 June 1941

(Number of Visits

Gross

1558

Tons

Net

885

on the

CAPITOL

Master

Built at Sunderland

By whom built

A.P. Austin & Son, Ltd No. 355 When built 1941

Engines made at

Sunderland

By whom made

N. E. Marine Eng. Co. (1938) Ltd

Engine No. 2997

When made do.

Boilers made at

do.

By whom made

do.

Boiler No. do.

When made do.

Nominal Horse Power

196

Owners

Gas Light & Coke Co.

Port belonging to

London

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

Manufacturers of Steel

Charles L. 2952

(Letter for Record

5

Total Heating Surface of Boilers

3952 sq ft

Is forced draught fitted

yes

Coal or Oil fired

coal

No. and Description of Boilers

One cylindrical multitubular

Working Pressure

200 lb.

Tested by hydraulic pressure to

350 lb

Date of test

25/3/41

No. of Certificate

4368

Can each boiler be worked separately

—

Area of Firegrate in each Boiler

62 sq ft

No. and Description of safety valves to each boiler

2 direct spring

Area of each set of valves per boiler

per Rule 17.45 sq in

as fitted 19.2 sq in

Pressure to which they are adjusted

Are they fitted with easing gear

yes

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

—

Smallest distance between boilers or uptakes and bunkers or woodwork

40 in

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2 ft 0 in

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

16 ft 6 7/8 in

Length

11 ft 0 in

Shell plates: Material

steel

Tensile strength

29/33

Thickness

1 7/16 in

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end D.R.L.

Long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 15/32 in

Pitch of rivets

4 3/8 in

Percentage of strength of circ. end seams

plate 66.4

rivets 42.77

Percentage of strength of circ. intermediate seam

plate —

Percentage of strength of longitudinal joint

plate 85.49

rivets 86.53

combined 88.29

Working pressure of shell by Rules

200.2 lb.

Thickness of butt straps

outer 1 3/32 in

No. and Description of Furnaces in each Boiler

3 Doughton: Stephen Gurney makes

Material

steel

Tensile strength

26/30

Smallest outside diameter

3 ft 11 9/16 in

Length of plain part

top —

Thickness of plates

crown 2 1/32 in

Description of longitudinal joint

weld

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

—

Working pressure of furnace by Rules

201.8 lb.

End plates in steam space: Material

steel

Tensile strength

26/30

Thickness

1 5/32 in

Pitch of stays 23 1/4 in x 2 1/2 in

How are stays secured

double nuts

Working pressure by Rules

202 lb.

Tube plates: Material

front steel

Tensile strength

26/30

Thickness

29/32 in

Mean pitch of stay tubes in nests

10 3/32 in

Pitch across wide water spaces

14 in x 8 1/2 in

Working pressure

front 218 lb.

back 223 lb.

Girders to combustion chamber tops: Material

steel

Tensile strength

28/32

Depth and thickness of girder

at centre

10 1 7/8 in

Length as per Rule

34 13/32 in

Distance apart

1 ft 0 in

No. and pitch of stays

in each

3, 8 1/4 in

Working pressure by Rules

205 lb.

Combustion chamber plates: Material

steel

Tensile strength

26/30

Thickness: Sides

13/16 in

Back

25/32 in

Top

13/16 in

Bottom 13/16 in

Pitch of stays to ditto: Sides

10 7/8 in x 10 1/2 in

Back

10 3/4 in x 9 3/4 in

Top

12 in x 8 1/4 in

Are stays fitted with nuts or riveted over

nuts fitted

Working pressure by Rules

204 lb.

Front plate at bottom: Material

steel

Tensile strength

26/30

Thickness

29/32 in

Lower back plate: Material

steel

Tensile strength

26/30

Thickness

29/32 in

Pitch of stays at wide water space

14 1/4 in x 9 3/4 in

Are stays fitted with nuts or riveted over

nuts fitted

Working Pressure

230 lb.

Main stays: Material

steel

Tensile strength

28/32

Diameter

At body of stay, 3 3/8 in

or Over threads 3 3/4 in

No. of threads per inch

6

Area supported by each stay 23 1/4 in x 2 1/2 in

Working pressure by Rules

200 lb.

Screw stays: Material

steel

Tensile strength

26/30

Diameter

At turned off part, 1 7/8 in

or Over threads

No. of threads per inch

9

Area supported by each stay 10 3/4 in x 9 3/4 in

2020

Foundation

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

The foregoing is a correct description,

W. H. Smith RESIDENT MANAGER. Manufact

Dates of Survey while building { During progress of work in shops - - } Please see Rpt 4.

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

Total No. of visits

This boiler has been constructed in accordance with the approved plans, Secretary's letters & the requirements of the Rules under Special Surveys.
Workmanship & materials are good.
In recommendation please see Rpt IV

Engineer Surveyor to Lloyd's Register of Shipping

RI. 4 JUL 1941

See Ald. 3E 33126

Lloyd's Register
Foundation