

REPORT ON BOILERS.

No. 33568

Received at London Office

-1 JAN 1943

Date of writing Report

10

When handed in at Local Office

14 Dec 1942

Port of

SUNDERLAND.

No. in
Reg. Book.

Survey held at

SUNDERLAND.

Date, First Survey

Last Survey

Dec 8 1942

on the

8 1/2 THISTLEMUIR

(Number of Visits

Tons

Gross 7237

Net 4293

Built at Sunderland By whom built J.S. Thompson & Sons, Ltd.

Yard No. 622

When built 1942

Engines made at do.

By whom made

N.E. Mar. Eng. Co. (1938), Ltd.

Engine No. 4028

When made do.

Boilers made at do.

By whom made

do.

Boiler No. do.

When made do.

Nominal Horse Power

509

Owners

Allan Black & Co.

Port belonging to

Sunderland

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

Manufacturers of Steel

Steel Co. of Scotland

(Letter for Record

S

Total Heating Surface of Boilers

7248 sq ft

Is forced draught fitted

yes

Coal or Oil fired

coal

No. and Description of Boilers

3 S.E. Cylindrical

Working Pressure

220 lb.

Tested by hydraulic pressure to

380 lb.

Date of test

7.9.42

No. of Certificate

44444

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

55 sq ft

No. and Description of safety valves to each boiler

2. Imp. High Lift

Area of each set of valves per boiler

per Rule

6.5 sq in

as fitted

7.94 sq in

Pressure to which they are adjusted

220 lb.

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

2'-6"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-3"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-0 1/16"

Length

11'-8 1/32"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

1 1/32"

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

long. seams

1 1/2"

Pitch of rivets

4 1/8"

10 3/8"

Percentage of strength of circ. end seams

plate

63.6.

rivets

46.1.

Percentage of strength of circ. intermediate seam

plate

—

rivets

—

Percentage of strength of longitudinal joint

plate

85.5.

rivets

86.2.

combined

88.3.

Thickness of butt straps

outer

1 1/8"

inner

1 1/4"

No. and Description of Furnaces in each Boiler

3 Dighton: Stephen Farley nicks

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-9 3/4"

Length of plain part

top

—

bottom

—

Thickness of plates

crown

1 1/16"

bottom

—

Description of longitudinal joint

Weld

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

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 3/32"

Pitch of stays

19 3/4" x 19 5/8"

How are stays secured

double nuts

Tube plates: Material

front

Steel

back

—

Tensile strength

26/30

Thickness

15/16"

25/32"

Mean pitch of stay tubes in nests

9 7/8"

Pitch across wide water spaces

14" x 8 1/4"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

10 1/2" x 13 3/8"

Length as per Rule

31 1/2"

Distance apart

9 1/4"

No. and pitch of stays

in each

3 2 8"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 1/4" x 8"

Back

9 1/4" x 8"

Top

9 1/4" x 8"

Are stays fitted with nuts or riveted over

nuts fitted

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

27/32"

Pitch of stays at wide water space

14" x 8"

Are stays fitted with nuts or riveted over

nuts fitted

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

3 1/8"

Over threads

3 1/2"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

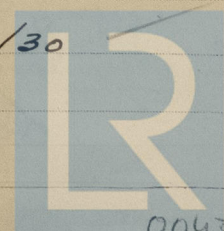
At turned off part,

1 3/4"

Over threads

No. of threads per inch

9



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Lloyd's Register

Foundation

004369-004375-0375

Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads

No. of threads per inch 9

Tubes: Material Steel External diameter { Plain 3" Stay 3" Thickness { 8 W.G. 3/8" 5/16" No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/8" Manhole compensation: Size of opening in Shell 16 x 12 Section of compensating ring — No. of rivets and diameter of rivet holes —

Outer row rivet pitch at ends — Depth of flange if manhole flanged 4 1/4" 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 — Thickness of crown — No. and diameter of stays — Inner radius of crown —

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 — 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 —

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 NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.
The foregoing is a correct description,
J. R. Horne Manufacturer.
RESIDENT MANAGER

Dates of Survey { 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.)

{ During erection on board vessel - - - } Total No. of visits

Is this Boiler a duplicate of a previous case — 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 approved plans, drawings, letters and the requirements of the Rules. Workmanship and materials are good. For recommendation please see Rpt. 4.

Survey Fee	£	:	:	When applied for,	19
Travelling Expenses (if any)	£	:	:	:	:	When received,	19

J. R. Horne

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 8 JAN 1943

Assigned See Sld. 7E. 33568