

REPORT ON BOILERS.

No. 25803

Received at London Office. 5 MAY 1948.

BARRY.

Date of writing Report. 26 April 1948. When handed in at Local Office. 19. 1948.

Port of

No. in Reg. Book. 33552

Survey held at

Penarth

Date, First Survey

1st Jan 1948.

Last Survey

21st April 1948.

(Number of Visits.....)

Tons

Gross 1391

Net 808

on the steel screw

Southern Island

Master

Built at

Kinderdijk

By whom built

L. Smit & Goon

Yard No.

When built

1917

Engines made at

Kinderdijk

By whom made

L. Smit & Goon

Engine No.

When made

1917

Boilers made at

Kinderdijk

By whom made

L. Smit & Goon

Boiler No.

When made

1917

Nominal Horse Power

184

Owners

Southern Shipping & Finance Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel. No record: existing boilers. (Letter for Record.....)

Total Heating Surface of Boilers

3488 sq. ft.

Is forced draught fitted

No.

Coal or Oil fired

Coal.

No. and Description of Boilers

Two. Multitubular.

Working Pressure

180 lb.

Tested by hydraulic pressure to

195 lb.

Date of test

15-4-48

No. of Certificate

None

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

42 sq. ft.

No. and Description of safety valves to each boiler

Two - direct spring loaded.

Area of each set of valves per boiler

per Rule 11.20 sq. in.

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

None.

Smallest distance between boilers and bunkers

4" ✓

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

18" ✓

Is the bottom of the boiler insulated

Yes - partly.

Largest internal dia. of boilers

12' 5 9/16"

Length

10' 5 1/4"

Shell plates: Material

Steel

Tensile strength

24/32 tons

Thickness

15/32" ✓

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

inter

none

long. seams

Y.R. ✓

Diameter of rivet holes in

circ. seams

long. seams

1 7/32" ✓

Pitch of rivets

35/8" ✓

8 3/8" ✓

Percentage of strength of circ. end seams

plate

rivets

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

rivets

Working pressure of shell by Rules

Thickness of butt straps

outer

inner

15/16" ✓

No. and Description of Furnaces in each Boiler

Two corrugated (Mansour type) ✓

Material

Steel ✓

Tensile strength

24.5/28 tons

Smallest outside diameter

3' 8 7/16" ✓

Length of plain part

top

bottom

Thickness of plates

crown

bottom

14/32" ✓

Description of longitudinal joint

Welded. ✓

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

None.

Working pressure of furnace by Rules

End plates in steam space: Material

Steel ✓

Tensile strength

25.5/30.5 tons

Thickness

7/8" ✓

Pitch of stays

16" x 16" max

How are stays secured

By nuts. ✓

Working pressure by Rules

Tube plates: Material

Steel ✓

Tensile strength

25.5/30.5 tons

Thickness

29/32" ✓

Pitch of stays

24/32" ✓

Mean pitch of stay tubes in nests

8 9/16" x 8 9/16" ✓

Pitch across wide water spaces

15" ✓

Working pressure

front

back

24/32" ✓

Girders to combustion chamber tops: Material

Steel ✓

Tensile strength

24.5/29.5 tons

Depth and thickness of girder

at centre

4 7/8" x 3/4" ✓

Length as per Rule

2' 4 1/2" ✓

Distance apart

8 1/4" ✓

in each

3 @ 4 1/4" ✓

Working pressure by Rules

Combustion chamber plates: Material

Steel ✓

Tensile strength

25.5/30.5 tons

Thickness

7/8" ✓

Pitch of stays

16" x 16" max

Tensile strength

24.5/29.5 tons

Thickness: Sides

11/16" ✓

Back

11/16" ✓

Top

11/16" ✓

Bottom

7/8" ✓

Pitch of stays to ditto: Sides

6 1/16" x 4 7/8" ✓

Back

4 7/8" x 4 7/8" ✓

Top

8 1/4" x 4 7/8" ✓

Working pressure by Rules

Front plate at bottom: Material

Steel ✓

Tensile strength

25.5/30.5 tons

Thickness

7/8" ✓

Pitch of stays at wide water space

15" ✓

Are stays fitted with nuts or riveted over

margin stays fitted ✓

with nuts ✓

Working pressure

25/8" ✓

Main stays: Material

Steel ✓

Tensile strength

24.5/29 tons

Area supported by each stay

Diameter

At body of stay

or

Over threads

2 5/8" ✓

No. of threads per inch

2 7/8" ✓

Working pressure by Rules

Screw stays: Material

Steel ✓

Tensile strength

25.5/29.5 tons

Thickness

7/8" ✓

Pitch of stays at wide water space

15" ✓

Are stays fitted with nuts or riveted over

margin stays fitted ✓

with nuts ✓

Diameter

At turned off part

or

Over threads

1 5/8" ✓

No. of threads per inch

8 ✓

Area supported by each stay

Diameter

At turned off part

or

Over threads

2 5/8" ✓

No. of threads per inch

8 ✓

Area supported by each stay

Working pressure by Rules..... Are the stays drilled at the outer ends..... no Margin stays: Diameter { At turned off part..... 1 5/4 or Over threads..... 1 7/8 " No. of threads per inch..... 8 Area supported by each stay..... Working pressure by Rules..... Tubes: Material..... Steel External diameter { Plain..... 3 1/4 " Stay..... Thickness { 3/8 " No. of threads per inch..... Pitch of tubes..... 4 9/32 " x 4 9/32 " Working pressure by Rules..... Manhole compensation: Size of opening in shell plate..... 11 7/8 " x 15 3/4 " Section of compensating ring..... 1 1/8 " No. of rivets and diameter of rivet holes..... Outer row rivet pitch at ends..... Depth of flange if manhole flanged..... 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 The foregoing is a correct description, Manufacturer.....

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith..... Yes while building { 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 are not new; they have now been examined for classification in accordance with the approved plan and Secretary's letter "E" 13-2-48. The boilers have been placed in good condition and in my opinion, are eligible to be classed, subject to stay and plain tubes being renewed at the first opportunity.
Please see Barry Rpt No 25803.

Charged on Rpt 9.
Survey Fee ... £ : : When applied for..... 19.....
Travelling Expenses (if any) £ : : When received..... 19.....

B. Moffatt.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... MAY 28 1948

Assigned..... Su F.E. maly. rpt

