

REPORT ON BOILERS.

No. 32912

JUL -3 1940

Received at London Office

Date of writing Report

192

When handed in at Local Office

2 JUL 1940

Port of

SUNDERLAND

No. in Survey held at

SUNDERLAND

Date, First Survey

Last Survey

June 28 1940

on the

S/S Shistlagorn

(Number of Visits)

Gross 4898

Tons Net 2750

Master

Built at Sunderland

By whom built

J. Thompson & Co. Ltd. No. 599

When built 1940

Engines made at

Sunderland

By whom made

H. E. Christie Eng. Co. (1918) Ltd

Engine No. 2957

When made 1940

Boilers made at

do.

By whom made

do.

Boiler No.

do. When made do.

Nominal Horse Power

365

Owners

Allyn Line, Ltd.

Port belonging to

Sunderland

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

Manufacturers of Steel

Steel Company of Scotland

(Letter for Record

5

Total Heating Surface of Boilers

1235 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

on S.E. Cylindrical

Working Pressure

220 lb.

Tested by hydraulic pressure to

380 lb.

Date of test

27/5/40

No. of Certificate

4328

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

34.37 sq ft

No. and Description of safety valves to each boiler

2 Direct spring

Area of each set of valves per boiler

per Rule 6.68 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

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

30"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

11'-9 23/32"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

29/32

Thickness

1 9/16"

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

3 1 3/16"

Pitch of rivets

3 1/2"

8 9/8"

Percentage of strength of circ. end seams

plate 66

rivets 44

Percentage of strength of circ. intermediate seam

plate

85.82

Percentage of strength of longitudinal joint

plate 86.21

combined 88.76

Working pressure of shell by Rules

220.3 lb.

Thickness of butt straps

outer 7/8"

inner 1"

No. and Description of Furnaces in each Boiler

2 Slighten. Stephen Sunday makers.

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-5 7/32"

Length of plain part

top

bottom

Thickness of plates

top 4 1/16"

bottom

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

226 lb.

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 1/16"

Pitch of stays

15 1/4" x 15"

How are stays secured

double nuts

Working pressure by Rules

223 lb.

Tube plates: Material

front Steel

back Steel

Tensile strength

3 26/30

Thickness

1 1/16"

13/16"

Mean pitch of stay tubes in nests

10 3/8"

Pitch across wide water spaces

14 1/4" x 9"

Working pressure

front 240 lb.

back 229 lb.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girders

at centre

9 1/8" x 2 1/16"

Length as per Rule

31.9"

Distance apart

11 3/4"

No. and pitch of stays

in each

3

7 1/2"

Working pressure by Rules

11 3/4"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

25/32"

Back 25/32"

Top 25/32"

Bottom 25/32"

Pitch of stays to ditto: Sides

9 5/8" x 10"

Back 9 1/4" x 9 5/8"

Top 11 3/4" x 7 1/2"

Are stays fitted with nuts or riveted over

nuts fitted

Working pressure by Rules

222 lb.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

1 1/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

1 1/16"

Pitch of stays at wide water space

14 1/2" x 9 5/8"

Are stays fitted with nuts or riveted over

nuts fitted

Working Pressure

235 lb.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay, 2 3/8"

or Over threads 2 3/4"

No. of threads per inch

6

Area supported by each stay

14.55" x 15"

Working pressure by Rules

220 lb.

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part, 1 7/8"

or Over threads

No. of threads per inch

9

Area supported by each stay

9 3/4" x 9 5/8"



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Working pressure by Rules 222 lb. Are the stays drilled at the outer ends no Margin stays: Diameter ^(At turned off part, or Over threads) 2"

No. of threads per inch 9 Area supported by each stay 11 1/2" x 9 7/8" Working pressure by Rules 222 lb.

Tubes: Material Steel External diameter ^{Plain} 3 3/4" Thickness ^{Stay} 8. H. 6. 3/8", 5/16", 1/4" No. of threads per inch 9

Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 222 lb. Manhole compensation: Size of opening 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 3 9/16" 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 —

of rivets in outer row in dome connection to shell —

Type of Superheater — Manufacturers of ^{Tubes} — ^{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 from the boiler —

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 —

Rules — Pressure to which the safety valves are adjusted — Hydraulic test pressure —

tubes — 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. (1939) LTD.
The foregoing is a correct description,
J. M. Smith Manager
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.) —

^{while building} ^{During erection on board vessel - -} — Total No. of visits —

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

This boiler has been constructed under Special Survey in accordance with the approved plans, see Rpt 4's letter and the requirements of the Rules. Workmanship and materials are good. In recommendation please see Rpt 4.

Survey Fee ... £ : : When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

L. R. Home
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE 9 JUL 1940

Assigned

See Std. JE 32912



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