

REPORT ON BOILERS.

No. 32948

AUG 27 1940

Received at London Office

Date of writing Report

102

When handed in at Local Office

12 Aug 1940 Port of

Sunderland.

No. in Survey held at Book.

Sunderland

Date, First Survey

Last Survey 7 Aug 1940

on the

S.S. "STANMORE"

(Number of Visits)

Tons Gross 4510.4970 Net 2881.

Registered

Built at Sunderland

By whom built

Wm. Dickenson & Co. Ltd. Yard No. 243

When built 1940.

Engines made at

Sunderland

By whom made

G. Clark (1938) Ltd.

Engine No. 1218

When made 1940

Boilers made at

Sunderland

By whom made

G. Clark (1938) Ltd.

Boiler No. 1218

When made 1940.

Indicated Horse Power

429.

Owners

Stanhope Steamship Co. Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record)

S.

Total Heating Surface of Boilers

4940 sq ft

Is forced draught fitted

Yes.

Coal or Oil fired

Coal

No. and Description of Boilers

Two Single End Cylindrical Multitubular marine

Working Pressure

220.

Tested by hydraulic pressure to

380

Date of test

26/6/40

No. of Certificate

4343

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

42.75 sq ft

No. and Description of safety valves to each boiler

Two direct Spring (Ordinary)

Area of each set of valves per boiler

per Rule 13-13 as fitted 14.12 sq in

Pressure to which they are adjusted

220

Are they fitted with easing gear

Yes.

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1'-4"

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

2'-11"

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

14'-9 1/8"

Length

12'-6"

Shell plates: Material

Steel

Tensile strength

29/33.

Thickness

1 1/16"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

g. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams 1 1/2" long. seams 1 1/2"

Pitch of rivets

4 1/4" 10 1/4"

Percentage of strength of circ. end seams

plate 64.7 rivets 45.9

Percentage of strength of circ. intermediate seam

plate rivets 85.36

Percentage of strength of longitudinal joint

plate rivets 89.21 combined 88.54

Working pressure of shell by Rules

223.5

Thickness of butt straps

outer 1 1/8" inner 1 1/4"

No. and Description of Furnaces in each Boiler

Three corrugated (Deighton).

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-5 9/16"

Length of plain part

top bottom

Thickness of plates

crown 2 1/32" bottom

Description of longitudinal joint

welded.

Dimensions of stiffening rings on furnace or a.e. bottom

Working pressure of furnace by Rules

230.

Stays in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 1/32"

Pitch of stays

25" x 19"

How are stays secured

Double nuts

Working pressure by Rules

224.

Stays plates: Material

front back Steel

Tensile strength

26/30

Thickness

15/16" 4/8"

Can pitch of stay tubes in nests

9 1/8" x 4 1/2"

Pitch across wide water spaces

1'-2 1/2"

Working pressure

front 224 364 back 220

Orders to combustion chamber tops: Material

Steel

Tensile strength

29/33

Depth and thickness of girder

Centre

1 1/2" x 2"

Length as per Rule

3'-10 1/2"

Distance apart

8 1/2"

No. and pitch of stays

Each

3 @ 10 3/4"

Working pressure by Rules

230

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

25/32"

Back

23/32"

Top

25/32"

Bottom

4/8"

Pitch of stays to ditto: Sides

10 3/4" x 8 7/8"

Back

9 1/4" x 8 3/4"

Top

10 3/4" x 8 1/2"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

222, 224, 230

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Pitch of stays at wide water space

1'-2 1/2" x 8 1/4"

Are stays fitted with nuts or riveted over

Nuts.

Working Pressure

259

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay, 3 1/2" Over threads, 3 3/4"

No. of threads per inch

6

Area supported by each stay

25" x 19"

Working pressure by Rules

224

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part, 1 3/4" Over threads, 1 7/8"

No. of threads per inch

9

Area supported by each stay

c.c. side 10 3/4" x 8 7/8" c.c. back, 8 5/8" x 8 3/4"



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W262-0099

Working pressure by Rules ^{223 (Side)} 240 Are the stays drilled at the outer ends ^{40.} Margin stays: Diameter ^{At turned off part, or Over threads} 1 7/8"

No. of threads per inch 9 Area supported by each stay ^{11 5/8" x 8 1/4"} Working pressure by Rules 222.

Tubes: Material **S.D. Steel** External diameter ^{Plain 2 1/2"} Thickness ^{8 LG.} No. of threads per inch 9

Pitch of tubes ^{3 3/4" x 3 3/4"} Working pressure by Rules 252, 267 Manhole compensation: Size of opening

shell plate (End plate) 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 5/16"} 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

stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and

of rivets in outer row in dome connection to shell

Type of Superheater **N.E.M. Combustion Chamber** Manufacturers of **Talbot Stead** Tubes **Stewart & Lloyd**

Number of elements **26.** Material of tubes **S.D. Steel** Internal diameter and thickness of tubes **1.148" = 7 WG.**

Material of headers **S.D. Steel** Tensile strength **26/28.** Thickness **1"** Can the superheater be shut off

the boiler be worked separately **Yes.** Is a safety valve fitted to every part of the superheater which can be shut off from the boiler **Yes.**

Area of each safety valve **3.94 sq.** Are the safety valves fitted with easing gear **Yes.** Working pressure as

Rules Pressure to which the safety valves are adjusted **220 lbs/sq.** Hydraulic test pressure by

tubes **1500 lbs/sq.** castings **660 lbs/sq.** and after assembly in place **440 lbs/sq.** Are drain cocks or valves fitted

to free the superheater from water where necessary **Yes.**

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

The foregoing is a correct description,
GEORGE CLARK (1888) LTD. Manufacture

Dates of Survey ^{During progress of work in shops - - -} **Please see Rpt 4** Are the approved plans of boiler and superheater forwarded herewith **Yes.**
 while building ^{During erection on board vessel - - -} Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **These boilers have been constructed under Special Survey in accordance with the approved plan & the rules of the Society.**

The materials & workmanship are good.

On completion the boilers have been tested by hydraulic pressure of 380 lbs/sq. & found tight & sound. They have been securely fixed on board the vessel, examined under steam & safety valves & boilers & superheaters adjusted to working pressure in accordance with the rule requirements.

In recommendation please see Mech. Rpt.

Survey Fee £ **See Mech. Rpt.** When applied for, 192
 Travelling Expenses (if any) £ : : : : : When received, 192

J. H. Fraser.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **FRI 30 AUG 1910**
 Assigned **See Old 176 32948**

