

REPORT ON WATER TUBE BOILERS.

No. 105384

Date of writing Report

19

When handed in at Local Office

19 JUN 1948

Received at London Office

Port of NEWCASTLE-ON-TYNE 26 JUN 1948

No. in Survey held at

North Shields.

Date, First Survey

23.4.48.

Last Survey

11.6.

1948

Reg. Book.

24063 on the Turbo-electric "FORT FREDERICA"

(Number of Visits 20)

Gross 10672.

Tons

Net 6822.

Built at Portland, Oregon

By whom built

Kaiser Co. Inc.

Yard No. 2401

When built

1945.

Engines made at Lynn, Mass.

By whom made

General Electric Co.

Engine No. 68257

When made

1945.

Boilers made at New York

By whom made

Combustion Eng. Co. Inc.

Boiler Nos. 11991.

When made

1945.

Nominal Horse Power 485. 1486

Owners

British Tankers Ltd.

Port belonging to LONDON.

WATER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel North Steel Co.

Date of Approval of plan

of Boilers Two, S.M.-type

Working Pressure 500 lb./sq. in.

No. and Description or Type

No. of Certificate

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers 11,354 sq. ft.

Is forced draught fitted

Yes

Area of Fire Grate (coal) in each Boiler

No. and type of burners (oil) in each boiler

Four, Todd Hot-spots.

No. and description of safety valves on

each boiler Two - 2 1/2" dia. duplex consolidated type.

Area of each set of valves per boiler

per rule

4.9 sq. in.

Pressure to which they

are adjusted 500 lb./sq. in.

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

5'-0"

Height of boiler 21 ft.

Width and length 11'-10" x 15'-6"

Steam Drums: Number in each boiler

One

Inside diameter 42"

Thickness of plates 1 1/32" x 3/4"

Range of tensile strength

70,000 lb./sq. in.

Are drum shell plates welded

or flanged Welded.

If fusion welded, state name of welding firm

Have all the requirements of the Rules

for Class I vessels been complied with

Description of riveting: Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

long. joint: Plate

Rivet

Diameter of tube holes in drum 4 1/2" x 1 1/2"

Pitch of tube holes

7"

Percentage strength of shell in way of tubes 42

Steam Drum Heads or Ends: Range of tensile strength

Thickness of plates 1 1/4"

Radius or how stayed Elliptical

Size of manhole or handhole 12" x 16"

Water Drums: Number

in each boiler

Inside diameter

Thickness of plates

Range of tensile strength

Are drum shell plates

welded or flanged

If fusion welded, state name of welding firm

Have all the requirements of the Rules

for Class I vessels been complied with

Description of riveting: Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Pitch of tube holes

Percentage strength of long. joint: Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Percentage strength of drum shell in way of tubes

Water Drum Heads or Ends: Range of tensile strength

Thickness of plates

Radius or how stayed

Size of manhole or handhole

Headers or Sections: Number 14

Material

Thickness 9/16"

Tested by hydraulic pressure to 750 lb./sq. in.

Tubes: Diameter 1 1/4", 2" x 4"

Thickness 13, 10 & 5 B.W.G.

Number 1,148, 56, 48.

MUD DRUM.

Steam Dome or Collector: Description of

joint to shell header - riddled

Inside diameter 5 3/4" square.

Thickness of shell plates 1 3/16"

Range of tensile

strength

Description of longitudinal joint Welded & fabricated.

If fusion welded, state name of welding

firm Have all the requirements for the Rules for Class I vessels been complied with

Diameter of rivet holes

Pitch of rivets

Thickness of straps

Percentage strength of long. joint

plate

rivet

Crown or End Plates: Range of tensile strength

Thickness

Radius or how stayed

SUPERHEATER, Drums or Headers: Number in each boiler One, interdeck

Inside diameter 5 3/4" square.

Thickness 5/8"

Material steel

Range of tensile strength

Are drum shell plates welded

or flanged welded.

If fusion welded, state name of welding firm

Have all the requirements of the Rules

for Class I vessels been complied with

Description of riveting: Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

long. joint: Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Percentage strength of

drum shell in way of tubes

Drum Heads or Ends: Thickness

Range of tensile strength

Radius or how stayed

Size of manhole or handhole

Number, diameter, and thickness of tubes 145, 1 1/4", 11 B.W.G.

Tested by hydraulic pressure to 750 lb./sq. in.

Date of test

Is a safety valve fitted to each section of the superheater which

can be shut off from the boiler

No. and description of safety valves One - 1 1/4" dia.

Area of each set

of valves 1.23 sq. in.

Pressure to which they are adjusted 473 lb./sq. in.

Is easing gear fitted

Spare Gear. Has the spare gear required by the Rules been supplied

Yes

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of work in shops - - }
 while building } During erection on board vessel - - }

Is the approved plan of boiler forwarded herewith

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 W.T. boilers have been constructed under the supervision of the U.S. Coast Guard and the American Bureau of Shipping. The scantlings have been verified as far as practicable. The workmanship is good and the materials satisfactory and sound.

Survey Fee ...

When applied for

19

Travelling Expenses (if any) £

When received

19

Date

JUL 23 1948

Committee's Minute

See minute on Rpt. 9

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

003038-003045-0148