

## REPORT ON WATER TUBE BOILERS.

No. 34848

Received at London Office

14 APR 1948

Date of writing Report

19

When handed in at Local Office

9<sup>th</sup> April 1948

Port of

Sunderland

No. in

Survey held at

Sunderland

Date, First Survey

see Rpt 9

Last Survey

19

Reg. Bk.

22215

on the

S.S. CYRUS SEARS

(Number of Visits)

Tons

Gross 1814

Net 1019

Built at San Francisco Calif.

By whom built

Pacific Bridge Co

When built

1943

Engines made at Alameda Calif.

By whom made

Pacific Bridge Co

When made

Boilers made at Saginaw Michigan

By whom made

The Wickes Boiler Co

When made

Nominal Horse Power MN 330

Owners

Ministry of Transport

Port belonging to

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel

Date of Approval of plan

Number and Description or Type

of Boilers 2 of Wickes A Type Marine Boiler Working Pressure 245 lbs

Tested by Hydraulic Pressure to

Date of Test

No. of Certificate

Can each boiler be worked separately

yes

Total Heating Surface of Boilers 4800 sq ft

Is forced draught fitted

yes

Area of fire grate (coal) in each Boiler

56 sq

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

coal fired

No. and description of safety valves on

each boiler 2 spring loaded (Consolidated C.S. Duplex)

Area of each set of valves per boiler

per rule

as fitted

5.52 sq

Pressure to which they

are adjusted 225 lbs

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

1' 6"

Height of boiler

15' 7"

Width and Length

12' 9" x 13' 9"

Steam Drums:—Number in each boiler

one

Inside diameter

46"

Thickness of plates

13/16"

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:—Cir. 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

2 1/2" x 3 1/2"

Percentage strength of shell in way of tubes

Steam Drum Heads or Ends:—Range of tensile strength

Thickness of plates

13/16"

Radius or how stayed

Radius

Size of manhole or handhole

16" x 12"

Water Drums:—Number

in each boiler

2

Inside Diameter

27"

Thickness of plates

13/16"

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:—Cir. seams

long. seam

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

Water Drum Heads or Ends:—Range of Tensile strength

Thickness of plates

13/16"

Radius or how stayed

Radius

Size of manhole or handhole

16" x 12"

Headers or Sections:—Number

Material

Thickness

Tested by Hydraulic Pressure to

Tubes:—Diameter

2 1/2" &amp; 1 1/2"

Thickness

1/2" &amp; 0.095

Number 104 &amp; 722

Steam Dome or Collector:—Description of

Joint to Shell

Inside diameter

Thickness of shell plates

Range of tensile

strength

Description of longitudinal joint

If fusion welded, state name of welding

firm Have all the requirements of 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

2

Inside Diameter

8 1/8"

Thickness

1/2"

Material

Range of tensile strength

Are drum shell plates welded

or flanged solid

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:—Cir. 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

3 1/4" x 4"

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

8 - 1 1/2" - 1 1/2"

Tested by Hydraulic Pressure to

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

1 - 1 1/2" spring loaded (Consolidated C.S.)

of valves

1 - 220"

Pressure to which they are adjusted

220 lbs

Is easing gear fitted

yes

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

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops - - -

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, &amp;c.)

For the information of the committee

Survey Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

C. Booker

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

14 MAY 1948

See minute on file

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