

REPORT ON BOILERS

SEA. No. 3446

20 JUL 1942

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of SEATTLE, WASHINGTON

No. in Survey held at Seattle, Washington

Date, First Survey July 31st

Last Survey Dec. 18th 1941

Reg. Book.

on the Todd-California Shipbuilding Corp., Yard No. 16, "Ocean Volunteer"

(Number of Visits 22)

Gross 7174

Net 4272

Master

Built at Richmond, Calif. By whom built Todd-Calif. Shipbldg. Corp. When built 1941

Engines made at Hamilton, Ohio

By whom made General Machinery Corporation When made 1942

Boilers made at Seattle, Wash.

By whom made Puget Sound Machinery Depot When made 1941

Registered Horse Power 505

Owners British Government Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—Manufacturers of Steel Lukens, Carnegie-Illinois S. Cos.

(Letter for record S) Total Heating Surface of Boilers 7140 sq. ft. Is forced draft fitted

No. and Description of

Boilers One - Scotch, Single Ended Working Pressure 220 lbs Tested by hydraulic pressure to 380 lbs Date of test Dec. 15

P.S.M.D.

No. of Certificate No. 6 Can each boiler be worked separately

Area of fire grate in each boiler 52 sq. ft. No. and Description of

safety valves to each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

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

Outs.

Smallest distance between boilers or uptakes and bunkers or woodwork

dia. of boilers 14' 9" Length 11' 9"

Material of shell plates Steel

Thickness 1-13/32"

Range of tensile strength 65,000

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams 1 1/2"

Pitch of rivets 5" x 10"

width of butt straps 22-1/8"

Per centages of strength of longitudinal joint

93.4

Working pressure of shell by

rules 221.2 lbs

Size of manhole in 3- 12" x 16"

Size of compensating ring Flanged

No. and Description of Furnaces in each

boiler 3-Corrugated Material Steel

Outside diameter 44-9/16"

Length of plain part

top 7-13/16"

Thickness of plates crown 21/32"

bottom 7-13/16"

bottom 21/32"

Description of longitudinal joint Forge weld No. of strengthening rings -

Working pressure of furnace by the rules 230 lbs Combustion chamber

plates: Material 25/32" Thickness: Sides 25/32" Back 25/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 10-3/16" Back 9" x 9"

Top (x 11" If stays are fitted with nuts or riveted heads (Nuts inside

(2.06" (81.0 sq. ins. (224 lbs

Working pressure by rules 224 # Material of stays Steel Area at

smallest part (2.40" Area supported by each stay (91.6

Working pressure by rules (232

End plates in steam space: Material Steel Thickness 1-1/32"

Pitch of stays 21" How are stays secured D. Nuts

Working pressure by rules 221

Material of stays Steel Area at smallest part 9.6 sq. ins.

Area supported by each stay 44 sq. in

Working pressure by rules 245

Material of Front plates at bottom Steel Thickness 1-1/32"

Lower back plate Steel Thickness 1-1/32"

Greatest pitch of stays 9" x 9"

Working pressure of plate by rules 232 Diameter of tubes 3"

Pitch of tubes 4-1/4" Material of tube plates Steel

Thickness: Front 1-1/32" Back 13/16"

Mean pitch of stays 9-7/16" Pitch across wide

water spaces 14 1/2" Working pressures by rules 232 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre (x 7/8" Length as per rule 34"

Distance apart 11"

Number and pitch of Stays in each 3 - 7-5/8"

Working pressure by rules 228

Steam dome: description of joint to shell -

% of strength of joint -

Diameter - Thickness of shell plates -

Material - Description of longitudinal joint -

Diam. of rivet holes -

Pitch of rivets - Working pressure of shell by rules -

Crown plates - Thickness -

How stayed -

UPERHEATER. Type

Date of Approval of Plan

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

VERTICAL DONKEY BOILER—

No. Description

Manufacturers of steel

Made at

By whom made

When made

Where fixed

Working pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

If fitted with easing gear

If steam from main boilers can

enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile

length

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

ap of plating

Per centage of strength of joint

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of Stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown

ates

Radius of do.

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,

Puget Sound Machinery Depot Manufacturer.

Dates

During progress of work in shops - - July: 31, Sept: 4, 12, 19, 25, 29, Oct: 1, 3, 18, 28.

while

Nov: 5, 13, 17, 26. Dec: 1, 3, 7, 9, 11, 15, 16, 18.

ilding

Total No. of visits 22

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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003421-003428-0091

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

The Scotch marine single ended boiler herein mentioned has been built under special survey and in accordance with the Rules and approved plan. The materials tested as required by the Rules and together with workmanship, found good throughout. This boiler has now been forwarded to Todd-California Shipbuilding Corp., Richmond, California, stated to be fitted on board their Hull No. When this has been done in accordance with the Rules, to the Surveyor's satisfaction the boiler will be eligible in my opinion to receive the notation 220 lbs in the Register Book.

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	.. £	:	:	When applied for.
Special	£	\$108. 61.	19.....
Donkey Boiler Fee	£	:	When received.
Travelling Expenses (if any)	£	\$4.00	:	19.....

Committee's Minute

NEW YORK JUL 1 1942

Assigned

See Richmond hkt. no. 16.

W. Smith
Engineer Surveyor to Lloyd's Register of Shipping



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