

REPORT ON BOILERS.

SEA. No. 3458  
17 AUG 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 November 14th, Last Survey January 19 19 42  
Reg. Book. 1941  
on the Todd-California Shipbuilding Corp., Yard No. 20. "Ocean Volga." Tons { 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

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 Jan. 15 P.S.M.D.

No. of Certificate No. 12 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

Smallest distance between boilers or uptakes and bunkers or woodwork Outs. dia. of boilers 14' 9" Length 11' 9"

Material of shell plates Steel Thickness 1-13/32" Range of tensile strength (65,000 to 75,000) 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" & 10"

width of butt straps 22-1/8" Per centages of strength of longitudinal joint rivets 93.4 Working pressure of shell by rules 221.2 lbs head plate 85.0

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 Steel 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" (7-5/8" (Nuts inside

Top 11" If stays are fitted with nuts or riveted heads (Rivets out) Working pressure by rule 224 lbs Material of stays Steel Area at smallest part (2.06" (81.0 sq. ins. (224 lbs Dblr. 1-1/32"

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 441 sq. ins. Working pressure by rules 245# Material of Front plates at bottom Steel Thickness 1-1/32" Material of 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 229 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 strength

Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Up of plating Per centage of strength of joint Rivets 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 plates

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  
By A. B. [Signature]

Dates { During progress of work in shops - - Nov: 14, 17, 19, 24, 26. Dec: 1, 2, 5, 7, 11, 12, 18, 22, 27, 30.  
Survey while board vessel - - Jan: 2, 6, 9, 15, 19.  
Total No. of visits 20

Is the approved plan of main boiler forwarded herewith

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) £	\$ 3.00	:	.....19.....

Committee's Minute NEW YORK JUL 29 1942  
Assigned See Richmond Rpt No 20

HGS

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

