

## REPORT ON MACHINERY.

No. 14217

Date of writing Report Aug 30 1917 When handed in at Local Office 1917 Part of New York & Philadelphia  
No. in Survey held at Bayonne, N.J. Date, First Survey Jan 8 1917 Last Survey Aug 8 1917  
Reg. Book. on the Vals Tube Boilers for Chester P. B. Co. Ipswich (Number of Vials 4)  
Master By whom built Chester Shipbuilding Co Tons Not  
Engines made at Pittsburg, Pa By whom made Westinghouse E. & M. Co. when made 1918  
Boilers made at Bayonne, N.J. By whom made Babcock & Wilcox Corp. when made 1917  
Registered Horse Power Owners United States Shipping Board Port belonging to Washington  
Nom. Horse Power as per Section 28 417 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

of ENGINES, &c.—Description of Engines  
Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Material of screw shaft  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight  
In the propeller boss If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part  
between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two  
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush  
Dia. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under  
rollers Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface  
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size  
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible  
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate  
What pipes are carried through the bunkers How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record (S) Manufacturers of Steel Lukens Iron & Steel Co.

Total Heating Surface of Boilers 8703 sq ft Is Forced Draft fitted No No. and Description of Boilers 3 Vals Tube (B. & W.)  
Working Pressure 200 lbs. Tested by hydraulic pressure to 500 lbs. Date of test 31-1-19 No. of Certificate 283

Can each boiler be worked separately Yes Area of fire grate in each boiler 90.58 sq ft No. and Description of Safety Valves to  
each boiler 2-spring loaded Area of each valve 9-6.2 sq in Pressure to which they are adjusted 200 lbs Are they fitted with easing gear Yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 3' Mean dia. of tubes 4 1/2" Length 4'-7 1/2" Material of shell plates Steel  
Thickness 9/16" Range of tensile strength 63/73000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S.R.L.A.P.  
long. seams D.R.D.B.S. Diameter of rivet holes in long. seams 29/32 Pitch of rivets 2 3/32 width of butt straps 1 1/4"  
Per centages of strength of longitudinal joint rivets 60.2 Working pressure of shell by rules 213 lbs Size of manhole in shell 15" x 11"  
plate 96.2

Size of compensating ring Flange ring No. and Description of Furnaces in each boiler Material Outside diameter  
Length of plain part top bottom Thickness of plates crown bottom Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom  
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:  
Material Steel Thickness 9/16" Pitch of stays How are stays secured Double ends Working pressure by rules Approved 200 lbs Material of stays

Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays  
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
Working pressure by rules 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

SUPERHEATER. Type Tube type Date of Approval of Plan 200 lbs. Tested by Hydraulic Pressure to 500 lbs.  
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 208 lbs Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description.  
The Babcock & Wilcox Co.

per J. Steyer Marine Dept Manufacturer.

Dates of Survey while building  
During progress of work in shops - - Jan 8 Feb 5 Jul 17 Aug 8  
During erection on board vessel - - -  
Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods  
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case: If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

These Boilers have been built under special Survey and in accordance with the approved plans. The workmanship and materials are both of good quality. The Boilers have been erected in the works: drums, flue tubes and superheaters have been tested to 500 lbs per sq in of fluid tight strength. They have now been dismantled for shipment. To complete the Survey the boilers to be re-erected in vessel, tested by hydraulic pressure: mounting, manholes, fitted and safety valves to be adjusted under steam.

These boilers are duplicates of Babcock & Wilcox Co boiler N° 33374, as approved by W. P. Salmon 9/6/16.

These boilers have been fitted on board the vessel, and tested by hydraulic pressure to 400 lbs. per sq in. The safety valves have been adjusted under steam to 200 lbs.

The amount of Entry Fee ... £ 1/3 : see report When applied for, 19...  
Special ... £ : 4 : When received, 19...  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : : 19...

Committee's Minute

Assigned

see Phil No 3931

J. P. Hudson W. P. Salmon  
Engineer Surveyor to Lloyd's Register of Shipping.



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