

REPORT ON MACHINERY.

No. 14217

Date of writing Report Aug 30 1917 When handed in at Local Office 19 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 Plates 4)
 Master Built at Chester, Pa By whom built Chester Shipbuilding Co Tons Gross Net
 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

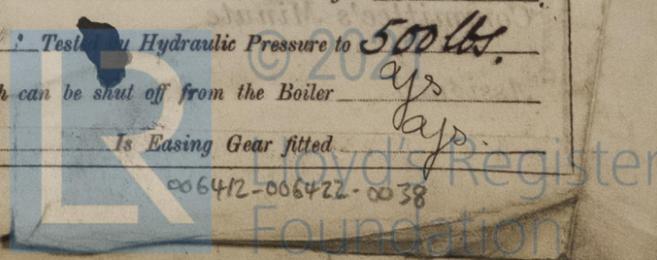
ENGINES, &c.—Description of Engines

Description of Engines			No. of Cylinders	No. of Cranks
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 does not fit tightly at the part	
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		

BOILERS, &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 9-62 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 14'-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 1/32" x 4 9/16" width of butt straps Old rule 9 1/4"
 Percentages of strength of longitudinal joint rivets 60.2 Working pressure of shell by rules 213 lbs Size of manhole in shell 15" x 11"
 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 Dished 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 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:—

pt. 13.

Port of
No. in
g. Book
Owners
ard No.

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 sheets 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, fittings and safety valves to be adjusted under steam.

These boilers are duplicates of Babcock & Wilcox Co. boiler No. 33374, as approved by Mr. Salmon 9/16/16.

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.

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

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

J. Hudson W. R. R. Ham
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned see Phil No 3931

DESCRIPTION
In. Ele
Wester
Capacity of D
Where is Dyn
Position of M
Positions of
Torque
Sunder
If fuses are
circuits
If vessel is w
Are the fuses
Are all fuses
are perm
Are all switc
Total number
A B C
B C
C
D
E
I
M
If are lights
Where are
DESCRIPTION
Main cable
Branch cable
Branch cable
Leads to lan
Cargo light
DESCRIPTION
Joints in ca
Are all the
position
Are there a
How are th