

REPORT ON MACHINERY.

No. 2566

REC'D NEW YORK

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to of writing Report 14th May 1917. When handed in at Local Office 15th May 1917. Port of

PHILADELPHIA

in "Survey held at Wilmington Del. Date, First Survey 25th Oct 1915 Last Survey 12th May 1917

55 on the S/S "BENJAMIN BREWSTER" (Number of Vests 79) Gross 5600

Master C. A. Peters Built at Wilmington By whom built Harlan & Hollingsworth When built 1914

Engines made at Wilmington By whom made Harlan & Hollingsworth when made 1914

Boilers made at Wilmington By whom made Harlan & Hollingsworth when made 1914

Registered Horse Power Owners Standard Oil Co. of New York. Port belonging to Bayonne N.J.

Horse Power as per Section 28 528. Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted yes.

GINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

a. of Cylinders 27"-45"-74" Length of Stroke 48" Revs. per minute Dia. of Screw shaft as per rule 14.8" Material of Steel

the screw shaft fitted with a continuous liner the whole length of the stern tube yes. Is the after end of the liner made water tight

the propeller boss yes. 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 type fit If two

are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-6"

a. of Tunnel shaft as per rule 13.38" Dia. of Crank shaft journals as per rule 14.05" Dia. of Crank pin 14.5" Size of Crank webs 28x9 1/2 Dia. of thrust shaft under

bars 14.5" Dia. of screw 17'-9" Pitch of Screw 17'-0" No. of Blades 4 State whether moveable yes Total surface 100 sq

a. of Feed pumps 2 Diameter of ditto 10x8" Stroke 21" Can one be overhauled while the other is at work yes.

a. of Bilge pumps 2 Diameter of ditto 4" Stroke 26" Can one be overhauled while the other is at work yes.

a. of Donkey Engines 10 Sizes of Pumps see over. No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 1-6", 1-3 1/2", 3-3" In Holds, &c. No. 4 Cofferdam 1-5", Bunker double bottom after Peak 1-3 1/2"

a. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both.

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above.

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes.

What pipes are carried through the bunkers Suction to No. 3 Cofferdam How are they protected Heavy wooden casing.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes.

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes.

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

MILERS, &c.—(Letter for record S.) Manufacturers of Steel Lukens I & S Co. Coatesville.

Total Heating Surface of Boilers 7788 sq Is Forced Draft fitted yes No. and Description of Boilers Two Single ended.

Working Pressure 180 lbs Tested by hydraulic pressure to 240 lbs Date of test 16-2-17 No. of Certificate 116.

Can each boiler be worked separately yes Area of fire grate in each boiler 90 sq No. and Description of Safety Valves to

each boiler 2 direct spring Area of each valve 15.9 sq Pressure to which they are adjusted 180 lbs Are they fitted with easing gear yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 3'-0" Mean dia. of boilers 18'-1 1/2" Length 11'-8 1/2" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 28/32 Are the shell plates welded or flanged no. Descrip. of riveting: cir. seams D.R. Lap

g. seams T.R. DBS Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 3/4" Lap of plates or width of butt straps 22 1/2"

Given as percentages of strength of longitudinal joint rivets 93.6 Working pressure of shell by rules 195 lbs Size of manhole in shell 16"x12"

a. of compensating ring 43"x39"x1 1/2" No. and Description of Furnaces in each boiler 4 horizontal Material Steel Outside diameter 51 1/2"

Length of plain part top 12" crown 12" bottom 32" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 184.4 Combustion chamber plates: Material Steel Thickness: Sides 32 Back 32 Top 32 Bottom 8

Pitch of stays to ditto: Sides 7 1/2"x7 1/2" Back 7 1/2"x7 1/2" Top 8 3/4"x7 1/2" If stays are fitted with nuts or riveted heads riveted heads Working pressure by rules 196 lbs

Material of stays Steel Area at smallest part 1.521 sq Area supported by each stay 56.25 sq Working pressure by rules 216 End plates in steam space:

Material Steel Thickness 1 1/2" Pitch of stays 18"x18" How are stays secured DN & W Working pressure by rules 184.8 Material of stays Steel

Area at smallest part 6.72 sq Area supported by each stay 324 sq Working pressure by rules 215.7 Material of Front plates at bottom Steel

Thickness 1 1/2" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 13" Working pressure of plate by rules 306.

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4"x3 1/2" Material of tube plates Steel Thickness: Front 7/8 Back 3/2" Mean pitch of stays 9.125"

Pitch across wide water spaces 13" Working pressures by rules 284 Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 9 1/2"x18" Length as per rule 54" Distance apart 8 3/4" Number and pitch of stays in each 3-4 1/2"

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

SUPERHEATER. 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

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