

## REPORT ON MACHINERY.

No. 97

REC'D NEW YORK

July 9 1917

Received at London Office

MON 30 JUL 1917

Date of writing Report 30 June 1917 When handed in at Local Office

Port of

CLEVELAND, OHIO

No. in Survey held at  
Reg. Book.

Date, First Survey 6 Feb. 1917 Last Survey 30 June 1917

(Number of Volls 43)

on the

Screw Steamer, CARMEN

Tone  
Gross  
Net

Master Built at Cleveland, O By whom built The American Shipbuilding Co When built 1917.6

Engines made at Cleveland, O By whom made The American Shipbuilding Co (No 465) when made 1917.

Boilers made at ditto By whom made ditto (No 465) when made 1917

Registered Horse Power - Owners Beyer and Hagerman Port belonging to Beyer

Nom. Horse Power as per Section 28 272 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &amp;c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 20 33 54 Length of Stroke 40 Revs. per minute 95 Dia. of Screw shaft as per rule 11.03 Material of screw shaft 5

Is 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

in the propeller boss Yes If the liner is in more than one length are the joints burned joint 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 No open If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 57

Dia. of Tunnel shaft as per rule 10.3 Dia. of Crank shaft journals as per rule 10.7 Dia. of Crank pin 11 Size of Crank web 21 x 7 Dia. of thrust shaft under

collars 11/2 Dia. of screw 12-6 Pitch of Screw 13-3 No. of Blades 4 State whether moveable No Total surface 60 ft

No. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 20 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 20 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 12 x 7 1/2 x 12 10 x 6 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3-8 in. Tank 1-2 1/2-8 in. In Holds, &amp;c. Forward Hold 2-3-8 in

No. of Bilge Injections 1 sizes 6 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room &amp; size 8 in 3

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 2 in How are they protected

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

Dates of examination of completion of fitting of Sea Connections 24.5.17 of Stern Tube 24.5.17 Screw shaft and Propeller 24.5.17

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

BOILERS, &amp;c.—(Letter for record 3) Manufacturers of Steel Carnegie Steel Co.

Total Heating Surface of Boilers 5246 ft Is Forced Draft fitted No. and Description of Boilers Two, G.L. Single End.

Working Pressure 180 lb. Tested by hydraulic pressure to 270 lb. Date of test 26.6.17 No. of Certificate 80

Can each boiler be worked separately Yes Area of fire grate in each boiler 63 ft No. and Description of Safety Valves to

each boiler 2 Spring Area of each valve 7.07 Pressure to which they are adjusted 180 lb. Are they fitted with easing gear Yes

Smallest distance between boilers on uptakes and bunkers on woodwork 7 in Mean dia. of boilers 14-6 Length 1-2 1/2 Material of shell plates 5.

Thickness 1/4 Range of tensile strength 28/32 T. Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.S.R.

long. seams DBS/TR Diameter of rivet holes in long. seams 15/16 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 19 3/4

Per centages of strength of longitudinal joint rivets 94.7 Working pressure of shell by rules 192 lb. Size of manhole in shell 15 x 11

Size of compensating ring 33 x 33 No. and Description of Furnaces in each boiler 3, Marine Material 5 Outside diameter 46

Length of plain part top Thickness of plates crown 5/8 Description of longitudinal joint Welded No. of strengthening rings

Working pressure of furnace by the rules 219 Combustion chamber plates: Material 5 Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 5/8

Pitch of stays to ditto: Sides 7 7/16 Back 7 7/16 Top 8 x 7 1/2 If stays are fitted with nuts or riveted heads rivets Working pressure by rules 181 lb.

Material of stays 5 Diameter at smallest part 1.26 Area supported by each stay 55.3 Working pressure by rules 183 lb End plates in steam space

Material 5 Thickness 1/32 Pitch of stays 7 x 15 3/4 How are stays secured D.N. Working pressure by rules 199 lb Material of stays 5

Diameter at smallest part 5.4 Area supported by each stay 268 Working pressure by rules 210 lb Material of Front plates at bottom 5

Thickness 13/16 Material of Lower back plate 5 Thickness 5/8 Greatest pitch of stays 12 1/2 6 1/2 Working pressure of plate by rules 266 lb

Diameter of tubes 3 1/4 Pitch of tubes 4 1/4 x 4 1/2 Material of tube plates 5 Thickness: Front 3/4 Back 3/4 Mean pitch of stays 2 1/2 x 7 1/2

Pitch across wide water spaces 13 3/4 Working pressures by rules 183 lb Girders to Chamber tops: Material 5 Depth and

thickness of girder at centre 8 7/8 x 1 1/2 Length as per rule 30 Distance apart 8 Number and pitch of stays in each 3-6 7 1/2

Working pressure by rules 220 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *No*

SPARE GEAR.

State the articles supplied: - *Ten Top and bolts, Ten bottom and bolts, Two main  
bracing bolts, one of coupling bolts, one of feed, bridge and air pump valves  
one of spring, bolts and nuts.*

The foregoing is a correct description,

*The American Ship Bldg Co.*  
*Manufacturer.*

Dates of Survey while building  
During progress of work in shops - *1917 Feb. 6, 13, 23, 27, 4, 5, 8, 9, 13, 15, 17, 20, 22, 26, 29, 30, Apr. 2, 3, 5, 7, 11, 13, 15, 18, 20, 22, 24, 26, 27, 7, 11, 13, 14, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, May 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, June 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, July 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Aug. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Sept. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Oct. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Nov. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, Dec. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 1917*  
During erection on board vessel - *June 1, 11, 20, 25, 26, 27, 30.*  
Total No. of visits *43*

Is the approved plan of main boiler forwarded herewith? *No. Duplicate 464*

Dates of Examination of principal parts: Cylinders *3.5.17* Slides *13.4.17* Covers *26.5.17* Pistons *16.5.17* Rods *16.5.17*  
Connecting rods *23.4.17* Crank shaft *8.5.17* Thrust shaft *8.5.17* Tunnel shafts *18.5.17* Screw shaft *21.5.17* Propeller *8.5.17*  
Stern tube *8.5.17* Steam pipes tested *25.6.17* Engine and boiler seatings *3.5.17* Engines holding down bolts *26.6.17*  
Completion of pumping arrangements *26.6.17* Boilers fired *11.5.17* Engines tried under steam *27.6.17*

Main boiler safety valves adjusted *27.6.17*

Thickness of adjusting washers *Lock Nut fitted*

Material of Crank shaft *045* Identification Mark on Do. *465 WL 1917*

Material of Thrust shaft *045* Identification Mark on Do. *465 WL 1917*

Material of Tunnel shafts *045* Identification Marks on Do. *with*

Material of Screw shafts *045* Identification Marks on Do. *with*

Material of Steam Pipes *Steel*

Test pressure *540 lb.*

Is an installation fitted for burning oil fuel? *No*

Is the flash point of the oil to be used over 150°F. *No*

Have the requirements of Section 49 of the Rules been complied with? *No*

Is this machinery duplicate of a previous case? *No (464)* state name of vessel *S.S. LYDERHORN*

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

*The above Engines and Boilers have been constructed under Spanish Survey.*

*The materials and workmanship employed in their construction are sound and good.*

*They have been fitted on board the Vessel in a satisfactory manner and found satisfactory under test.*

*The Thrust is shigible, in my opinion, I have noted + LMC. 6.17.*

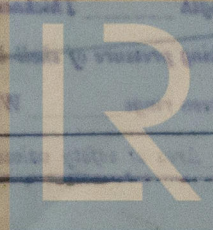
*It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC. 6.17.*

The amount of Entry Fee ... *\$10.00* : When applied for, *1917*  
Special ... *\$168.00* :  
Donkey Boiler Fee ... *\$7.00* :  
Traveling Expenses (if any) ... *\$7.00* :  
When received, *1917*

Committee's Minute *New York JUL 10 1917*

Assigned *+ Lmb 6.17 Elec. Light*

Engineers Surveyors to Lloyd's Register of British & Foreign Shipping



Lloyd's Register  
Foundation