

## REPORT ON MACHINERY.

Received at London Office  
CLEVELAND, OHIO, 1917

Date of writing Report 21 July 1917 When handed in at Local Office 19 Port of CLEVELAND, OHIO  
No. in Survey held at Cleveland, O. Date, First Survey 5 March 1917 Last Survey 20 July 1917  
Reg. Book. 43 Number of Visits 43 Gross Tons 1917  
on the Screw Steamer "KIOWA"

Master                      Built at Cleveland, O. By whom built The American Shipbuilding Co. When built 1917-7

Engines made at Cleveland, O. By whom made The American Shipbuilding Co. (No. 466) when made 1917

Boilers made at Cleveland, O. By whom made The American Shipbuilding Co. (No. 466) when made 1917

Registered Horse Power                      Owners Atlantic Gulf & West India S. S. Co. Port belonging to New York

Nom. Horse Power as per Section 28 272 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &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 85 Dia. of Screw shaft 11 1/4 Material of screw shaft S  
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 Yes 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 Yes If two  
liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5 1/2

Dia. of Tunnel shaft 10 3/4 Dia. of Crank shaft journals 10 3/8 Dia. of Crank pin 11 Size of Crank webs 2 1/2 x 7 Dia. of thrust shaft under  
collars 1 1/2 Dia. of screw 2 1/2 Pitch of Screw 13 1/2 No. of Blades 4 State whether moveable No Total surface 60

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 10 x 12 1/2 12 x 12 1/2 10 x 6 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3" Bon. Tunnel 1-2 1/2" Bon In Holds, &c. Forward Hold 2-3" Bon

Aft Hold 3-3" Bon

No. of Bilge Injections 1 sizes 6 Connected to condenser, or to circulating pump CD Is a separate Donkey Suction fitted in Engine room & size 1-3"

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 Yes

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 None 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

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

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

Total Heating Surface of Boilers 5246 Is Forced Draft fitted No No. and Description of Boilers Two Cyl. Single end

Working Pressure 180 lbs Tested by hydraulic pressure to 270 lbs Date of test 19.5.17 No. of Certificate P2

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

each boiler 2 Spring Area of each valve 7.07 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 7 Mean dia. of boilers 14-6 Length 1-23 1/2 Material of shell plates S

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

long. seams DBS/TR Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 19 3/4

Per centage of strength of longitudinal joint 94 7/8 Working pressure of shell by rules 192 lbs Size of manhole in shell 15" x 11"

Size of compensating ring 33" x 33" No. and Description of Furnaces in each boiler 3. Main Material S Outside diameter 46"

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

Working pressure of furnace by the rules 219 Combustion chamber plates: Material S 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 Yes Working pressure by rules 18 1/4

Material of stays S Area at smallest part 1.26 Area supported by each stay 55.3 Working pressure by rules 18 1/4 End plates in steam space:

Material S Thickness 1 3/32 Pitch of stays 17 x 15 1/2 How are stays secured D.Y. Working pressure by rules 199 Material of stays S

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

Thickness 1 3/16 Material of Lower back plate S Thickness 5/8 Greatest pitch of stays 12 1/2 Working pressure of plate by rules 266

Diameter of tubes 3 3/4 Pitch of tubes 4 1/4 Material of tube plates S Thickness: Front 3/4 Back 3/4 Mean pitch of stays 2 3/8 x 8 1/2

Pitch across wide water spaces 13 3/4 Working pressures by rules 83 1/4 Girders to Chamber tops: Material S 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 @ 7 1/2

Working pressure by rules 220 Steam dome: description of joint to shell None % 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 None 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                     

Number of Safety Valves                      Pressure to which each is adjusted                      Is Easing Gear fitted



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

Two top end bolts, two bottom end bolts.  
Two main bearing bolts, one of coupling bolts, one of feed, bridge and air  
pump valves, one of piston springs, one propeller, bolts and iron.

The foregoing is a correct description,

The American Ship Bldg Co  
Jaco

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1917. May 5, 6, 8, 13, 20, 22, 29, 30. Apr 2, 3, 5, 7, 11, 13, 18, 20, 23, 24, 26, 27. May 1, 3, 7, 11, 12, 14, 16, 18, 19, 24.  
During erection on board vessel -- June 1, 5, 11, 18, 20, 25, 26. July 3, 9, 13, 18, 19, 20.  
Total No. of visits 43

Is the approved plan of main boiler forwarded herewith Dup 465

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 1 June Slides 11 June Covers 1 June Pistons 11 June Rods 11 June  
Connecting rods 5 June Crank shaft 5 June Thrust shaft 5 June Tunnel shafts 25 June Screw shaft 11 June Propeller 11 June  
Stern tube 11 June Steam pipes tested 13 July Engine and boiler seatings 20 June Engines holding down bolts 18 July  
Completion of pumping arrangements 13 July Boilers fixed 20 June Engines tried under steam 19 July  
Completion of fitting sea connections 15 June Stern tube 15 June Screw shaft and propeller 15 June  
Main boiler safety valves adjusted 19 July Thickness of adjusting washers Look not fitted  
Material of Crank shaft S. Identification Mark on Do. 1917 Material of Thrust shaft S. Identification Mark on Do. 1917  
Material of Tunnel shafts S Identification Marks on Do. 1917 Material of Screw shafts S Identification Marks on Do. 1917  
Material of Steam Pipes Steel Test pressure 540 lb

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 465 If so, state name of vessel S/S 'CARMEN'

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

The above machinery has been constructed under Special Survey.  
The materials and workmanship employed in its manufacture are sound  
and good. It has been fitted on board the above Vessel in a  
satisfactory manner and proved satisfactory under steam.

The Vessel is eligible, in my opinion, to have record  
+ LMC 7.17.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 7.17.

The amount of Entry Fee ... \$10 : 00 :  
Special ... \$168 : 00 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) \$45 : 00 :

When applied for,

When received,

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York JUL 3 1 1917

Assigned

+ LMC 7.17 Elec Light



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Lloyd's Register  
Foundation