

Date of writing Report 21 July 1917 When handed in at Local Office 19 Port of CLEVELAND, OHIO

No. in Survey held at 1 Cleveland, O. Date, First Survey 5 March 1917 Last Survey 20 July 1917

Reg. Book. on the Screw Steamer "KIOWA" Owners: Atlantic Gulf & West India S. S. Co. Port belonging to New York

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

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

Registered Horse Power - 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 as per rule 11.03 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

Is the liner in more than one length are the joints burned No 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

liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 5 1/2

Dia. of Tunnel shaft as per rule 10.3 Dia. of Crank shaft journals as per rule 10.8 Dia. of Crank pin 11 Size of Crank webs 2 x 7 Dia. of thrust shaft under collars 1 1/2 Dia. of screw 2-6 Pitch of Screw 13-3 No. of Blades 4 State whether moveable No Total surface 60 sq 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 Dupl. 10 x 12 x 12 / 12 x 8 x 12 / 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 CP 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 sq ft 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 sq ft No. and Description of Safety Valves to each boiler 2 Spring Area of each valve 7.07 sq ft 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" INT. Mean dia. of boilers 14'-6" Length 11'-2 3/4" Material of shell plates S

Thickness 1/4" Range of tensile strength 28/32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 25 R 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 centages of strength of longitudinal joint rivets 94.7 plate 84.6 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. Material S. Outside diameter 46"

Length of plain part top bottom Thickness of plates crown 5/8 bottom 5/8 Description of longitudinal joint Welded No. of strengthening rings - Working pressure of furnace by the rules 219 lbs 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 Riv. 79 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 182 lbs End plates in steam space: Material S. Thickness 1/32 Pitch of stays 17 x 5 1/2 How are stays secured D.N. Working pressure by rules 199 lbs Material of stays S.

Area at smallest part 5.41 Area supported by each stay 268 Working pressure by rules 210 lbs Material of Front plates at bottom S.

Thickness 1/16 Material of Lower back plate S. Thickness 5/8 Greatest pitch of stays 12 1/2 x 6 1/2 Working pressure of plate by rules 266 lbs

Diameter of tubes 3 1/4 Pitch of tubes 4 1/4 x 4 1/2 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 lbs Girders to Chamber tops: Material S. Depth and thickness of girder at centre 8 5/8 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 lbs 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 -

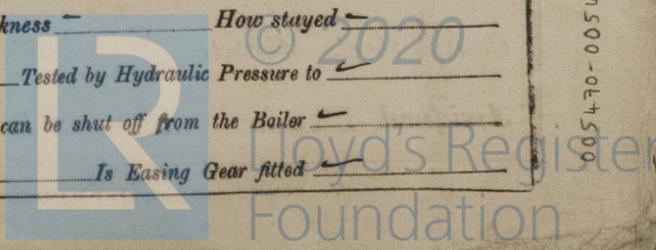
Pitch of rivets - Working pressure of shell by rules - Crown plates - Thickness - How stayed -

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 -

iameter of Safety Valve - Pressure to which each is adjusted - Is Easing Gear fitted -

510-67500-067500



IS A DONKEY BOILER FITTED? *No*

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
Geo 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, 17, 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, 15, 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 into files*
Material of Crank shaft *S.* Identification Mark on Do. *LLOYDS. WL 1917* Material of Thrust shaft *S.* Identification Mark on Do. *LLOYDS. WL 1917*
Material of Tunnel shafts *S* Identification Marks on Do. *WL 1917* Material of Screw shafts *S.* Identification Marks on Do. *WL 1917*
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.

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.

W. Law
22/8/17

The amount of Entry Fee ... *\$10 : 00 :* When applied for,
Special ... *\$168 : 00 :* 19
Donkey Boiler Fee ... *£ - :* When received,
Traveling Expenses (if any) *\$45 : 00 :* *15/8/17*

W. Law
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *New York JUL 3 1 1917*
Assigned *+ LMC 7.17 Elec Light*



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