

## REPORT ON MACHINERY.

No. 147

REC'D NEW YORK May 4 1918

Received at London Office

Date of writing Report 19. 4. 1918 When handed in at Local Office

Port of

CLEVELAND, OHIO.

No. in Survey held at Lorain, Ohio

Date, First Survey 17. 10. 17

Last Survey 19. 4. 1918

Reg. Book.

on the Screw Steamer "Lake Jessup"

(Number of Visits 30)

Gross Tons

Master Built at Lorain

By whom built The American Shipbuilding Co. (No. 727) When built 1918

Engines made at Lorain

By whom made The American Shipbuilding Co. (No. 727) when made 1918

Boilers made at Lorain

By whom made The American Shipbuilding Co. (No. 727) when made 1918

Registered Horse Power

Owners US Shipping Board Engineering Dept. Port belonging to Lorain

Nom. Horse Power as per Section 28 272

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

## 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 85

Dia. of Screw shaft

as per rule 11'-22"

Material of

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 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

If two

liners are fitted, is the shaft lapped or protected between the liners Yes

Length of stern bush 51"

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 21' x 7'

Dia. of thrust shaft under

collars 11 1/2"

Dia. of screw 13'-3"

Pitch of Screw 12'-6"

No. of Blades 4

State whether moveable No

Total surface 534'

No. of Feed pumps 2

Diameter of ditto 10' x 7'

Stroke 12'

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 2

Sizes of Pumps 10' x 12' x 12' x 12' x 8' x 12'

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3'-8" Bore. Tunnel 1-2 1/2'-8" Bore

In Holds, &amp;c. Forward Holds 2-3'-8" Bore

Aft Holds 3-3'-8" Bore

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 4'-3'-8"

Are all the bilge suction pipes fitted with roses Yes

Are the roses in Engine room always accessible Yes

Are the shutces 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 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 E.R.

BOILERS, &amp;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 4' x 8' Single end.

Working Pressure 180 lb

Tested by hydraulic pressure to 270 lb

Date of test 2. 2. 18

No. of Certificate 110

Can each boiler be worked separately Yes

Area of fire grate in each boiler 634'

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 or uptakes and bunkers or woodwork 6'

Mean dia. of boilers 14'-6"

Length 11'-23"

Material of shell plates

Thickens 1 1/4"

Range of tensile strength 62720 lb

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 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 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. Main

Material S.

Outside diameter 46"

Length of plain part

top 9 1/6"

bottom 9 1/6"

Description of longitudinal joint Weld

No. of strengthening rings

Working pressure of furnace by the rules 191

Combustion chamber plates: Material S.

Thickness: Sides 7/8"

Back 7/8"

Top 7/8"

Bottom 7/8"

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 No

Working pressure by rules 181

Material of stays S.

Area at smallest part 1.26'

Area supported by each stay 55.3'

Working pressure by rules 182

End plates in steam space:

Material S.

Thickness 1 3/32"

Pitch of stays 17' x 15 3/4"

How are stays secured DN.

Working pressure by rules 199

Material of stays S.

Area at smallest part 5.41'

Area supported by each stay 268'

Working pressure by rules 210

Material of Front plates at bottom S.

Thickens 1 3/16"

Material of Lower back plate S.

Thickness 7/8"

Greatest pitch of stays 12 1/2' x 6 1/2"

Working pressure of plate by rules 266

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2' x 4 1/2"

Material of tube plates S.

Thickness: Front 3/4"

Back 3/4"

Mean pitch of stays 12 1/2' x 8 1/2"

Pitch across wide water spaces 13 3/4"

Working pressures by rules 183

Girders to Chamber tops: Material S.

Depth and

thickness of girder at centre 8 7/8' x 1 1/4"

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

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IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *Two top and bottom & nuts, two bottom and bolts, two main bearing bolts, set of coupling bolts, set of air, feed and large pump valves in full set.*

The foregoing is a correct description,

*Amuseur Shipbuilding Co*

*A. C. Smith & Sons*

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *E 717. 1917. Oct 17, 21, 26, Nov. 14, 21, 28, Dec. 4, 12, 15, 21, 27, 31, 1917. Jan. 5, 15, 18, 25, 29, 31, Feb 2*  
During erection on board vessel -- *B 728. 1917. Jan 30, Dec. 4, 12, 15, 21, 27, 31, 1917. Jan. 5, 15, 18, 25, 31, Feb 2.*  
Total No. of visits *30*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *18.1.18* Slides *18.1.18* Covers *18.1.18* Pistons *18.1.18* Rods *18.1.18*

Connecting rods *25.1.18* Crank shaft *27.12.17* Thrust shaft *15.1.17* Tunnel shafts *31.1.18* Screw shaft *31.1.18* Propeller

Stern tube *25.1.18* Steam pipes tested *2.3.18* Engine and boiler seatings *18.1.18* Engines holding down bolts *18.3.18*

Completion of pumping arrangements *19.3.18* Boilers fixed *21.2.18* Engines tried under steam *19.4.18*

Completion of fitting sea connections *18.1.18* Stern tube *2.2.18* Screw shaft and propeller *2.2.18*

Main boiler safety valves adjusted *19.4.18* Thickness of adjusting washers *Look but fitted*

Material of Crank shaft *S.* Identification Mark on Do. *WL 1918* Material of Thrust shaft *S.* Identification Mark on Do. *WL 1918*

Material of Tunnel shafts *S.* Identification Marks on Do. *WL 1918* Material of Screw shafts *S.* Identification Marks on Do. *WL 1918*

Material of Steam Pipes *Steel* Test pressure *540 lb. sq. in.*

Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*

Have the requirements of Section 49 of the Rules been complied with *Yes*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *Eg. 725 s/s. Lake Como*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above engine and boilers*

*have been constructed under Special Survey. The material and workmanship employed in their manufacture, in fact the case to own, are sound and good.*

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

*The vessel is eligible in my opinion, to be insured + L.C. 4.18*

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 4.18.

*W.D.*  
*6/6/18.*

*G.R.R.*

The amount of Entry Fee ... *£ 10 : 00 :*  
Special ... *£ 168 : 00 :*  
Donkey Boiler Fee ... *£ 45 : 00 :*  
Travelling Expenses (if any) *£ 8 : 50 :*

When applied for.

When received.

Committee's Minute *New York MAY 7 - 1918*

Assigned

*+ LMC 4.18*  
*Elec. Light*

*W. Law*

Engineer Surveyor to Lloyd's Register of Shipping.



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