

REPORT ON MACHINERY.

Date of writing Report 1 July 1918 when handed in at Local Office Port of Cleveland Ohio

No. in Survey held at Ashtabula O. Date, First Survey 28 Feb 18 Last Survey 27 June 1918
Reg. Book. on the Screw Steamer LAKE CHARLOTTE

Master Built at Ashtabula By whom built The Gt Lakes Eng Works When built 1915-6

Engines made at Ashtabula By whom made The Gt Lakes Eng Works when made 1918

Boilers made at Buffalo N.Y. By whom made Lake Erie Boiler Works when made 1918

Registered Horse Power Owners U.S. Shipping Board Emergency Force belonging to Ashtabula

Nom. Horse Power as per Section 28 289 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 21 · 35 · 59 Length of Stroke 42 Revs. per minute 85 Dia. of Screw shaft as per rule 2 1/16 Material of S
as fitted 1 1/4 screw shaft

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 49 1/4

Dia. of Tunnel shaft as per rule 1 1/8 Dia. of Crank shaft journals as per rule 1 1/8 Dia. of Crank pin 1 1/8 Size of Crank webs 23 x 8 3/4 Dia. of thrust shaft under

collars 1 1/8 Dia. of screw 1/4 - 6 Pitch of Screw 13 - 9 No. of Blades 4 State whether moveable No Total surface 70 sq ft

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

No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 21 Can one be overhauled while the other is at work Yes

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

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

Aft Holds 3 - 3" Bore

No. of Bilge Injections 1 sizes 7 Connected to condenser, or to circulating pump CP Is a separate Donkey Suction fitted in Engine room of size Yes - 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 Steam to Winches etc How are they protected Steel Casings

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

Total Heating Surface of Boilers 4962 Is Forced Draft fitted No No. and Description of Boilers Two Multi Single End

Working Pressure 190 lb Tested by hydraulic pressure to 300 lb Date of test 26.4.18 No. of Certificate 121

Can each boiler be worked separately Yes Area of fire grate in each boiler 74.7 sq ft No. and Description of Safety Valves to

each boiler Two Spring Area of each valve 12.57 sq in Pressure to which they are adjusted 190 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8 1/2 Mean dia. of boilers 15-9 Length 11-0 Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part Thickness of plates Description of longitudinal joint No. of strengthening rings

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

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:

Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays

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

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

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

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

REPORT ON MACHINERY

IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied: — *Two top and bottom valves, two bottom and deck two main bearing bolts, set of coupling bolts, set each, air, feed and bridge pump valves, one propeller.*

The foregoing is a correct description,

Goodman M M Manufacturer. *J. E. W.*

Dates of Survey while building: During progress of work in shops — *1918, - Feb. 28, Mar 7, 14, 27, Apr 5, 16, 22, 26, 29, May 8, 16, 29.*
 During erection on board vessel — *June 8, 12, 22, 27.*
 Total No. of visits *16* Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " " *Yes*

Dates of Examination of principal parts — Cylinders *8. 5. 18* Slides *29. 5. 18* Covers *29. 5. 18* Pistons *29. 5. 18* Rods *29. 5. 18*
 Connecting rods *29. 5. 18* Crank shaft *16. 5. 18* Thrust shaft *16. 5. 18* Tunnel shafts *29. 5. 18* Screw shaft *5. 4. 18* Propeller *16. 4. 18*
 Stern tube *5. 4. 18* Steam pipes tested *12. 6. 18* Engine and boiler seatings *29. 4. 18* Engines holding down bolts *27. 6. 18*
 Completion of pumping arrangements *27. 6. 18* Boilers fixed *22. 6. 18* Engines tried under steam *22. 6. 18*
 Completion of fitting sea connections *16. 4. 18* Stern tube *16. 4. 18* Screw shaft and propeller *29. 5. 18*
 Main boiler safety valves adjusted *22. 6. 18* Thickness of adjusting washers *Look into future*
 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 *S.* Test pressure *570 lbs.*

Is an installation fitted for burning oil fuel *Yes* 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 *Yes*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *LAKE ST REGIS*

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, so far as can be seen, are sound and good. Together with the Boilers, it has been fitted on board the above vessel in a satisfactory manner and proved satisfactory under test.*
The vessel is eligible, in my opinion, to have record + LMC 6. 18

It is submitted that this vessel is eligible for THE RECORD. + LMC 6. 18.

W. E. W.
2/8/18.
J. E. W.

The amount of Entry Fee ... *\$ 10 : 00 :* When applied for, *5 July 1918*
 Special Forgings ... *\$ 172 : 25 :*
 Donkey Boiler Fee ... *\$ 45 : 00 :* When received, *14/9/18*
 Travelling Expenses (if any) *\$ 32 : 00 :*

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

Committee's Minute *New York JUL - 9 1918*
 Assigned *+ LMC 6. 18.*



Write "Upper Deck Sheer Strake" and "Upper Deck Sheer Strake" opposite the corresponding letter.
 THE KEEL
 DECK
 DBLG.
 Length
 POOP &
 SHORT
 FORECASTLE
 Upper Stringer
 Second Stringer
 FRAMING
 REVEALING
 Two
 LOWER
 BOWSPRITE
 TOPMAS
 RIGGING
 SALES.

Rpt
 Date
 No.
 Reg
 Mas
 Eng
 Boil
 Reg
 MU
 (Let
 Boil
 No.
 safe
 Are
 Smo
 Mat
 Des
 Lap
 rule
 boil
 Des
 pla
 Top
 sma
 Pit
 Are
 Loc
 Pit
 wat
 giv
 Wo
 Dic
 Pit
 SUP
 Dat
 Dia
 VI
 Ma
 tes
 No.
 ente
 stre
 Lap
 Rac
 Thi
 pla
 Thi
 D
 of S
 u
 bu