REC'D NEW YORK Aug 3, 1917

Rpt. 4.

REPORT ON MACHINERY.

No. 50.

REC'D NEW YORK Nov. 15. 1917

Received at London Office WED 5 DEC 1917

Date of writing Report ____ 19 ____ When handed in at Local Office ____ 19 ____ Port of Detroit, Mich.

No. in Reg. Book. ____ Survey held at Detroit, Mich. Date, First Survey 23. Jan 1917 Last Survey 29. July 1917 (Number of Visits ____)

on the Main Boilers for S.S. "SIDI MABROUK" Gross ____ Tons (172) Net ____

Master ____ Built at Ashtabula By whom built G. Lakes Engineering Works When built 1917

Engines made at Ashtabula By whom made G. Lakes Engineering Works (No 172) when made 1917

Boilers made at Detroit By whom made John Brennan & Company when made 1917

Registered Horse Power — Owners U.S. Shipping Board Emergency Fleet Corporation Port belonging to Washington D.C.

Nom. Horse Power as per Section 28 284 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines ____ No. of Cylinders ____ No. of Cranks ____

Dia. of Cylinders ____ Length of Stroke ____ Revs. per minute ____ Dia. of Screw shaft (as per rule ____ as fitted ____) Material of screw shaft ____

Is the screw shaft fitted with a continuous liner the whole length of the stern tube ____ Is the after end of the liner made water tight in the propeller boss ____ If the liner is in more than one length are the joints burned ____ 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 ____ If two liners are fitted, is the shaft lapped or protected between the liners ____ Length of stern bush ____

Dia. of Tunnel shaft (as per rule ____ as fitted ____) Dia. of Crank shaft journals (as per rule ____ as fitted ____) Dia. of Crank pin ____ Size of Crank webs ____ Dia. of thrust shaft under collars ____ Dia. of screw ____ Pitch of Screw ____ No. of Blades ____ State whether moveable ____ Total surface ____

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

No. of Bilge pumps ____ Diameter of ditto ____ Stroke ____ Can one be overhauled while the other is at work ____

No. of Donkey Engines ____ Sizes of Pumps ____ No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room ____ In Holds, &c. ____

No. of Bilge Injections ____ sizes ____ Connected to condenser, or to circulating pump ____ Is a separate Donkey Suction fitted in Engine room & size ____

Are all the bilge suction pipes fitted with roses ____ Are the roses in Engine room always accessible ____ Are the sluices on Engine room bulkheads always accessible ____

Are all connections with the sea direct on the skin of the ship ____ Are they Valves or Cocks ____

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates ____ Are the Discharge Pipes above or below the deep water line ____

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel ____ Are the Blow Off Cocks fitted with a spigot and brass covering plate ____

What pipes are carried through the bunkers ____ How are they protected ____

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges ____

Is the Screw Shaft Tunnel watertight ____ Is it fitted with a watertight door ____ worked from ____

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

Total Heating Surface of Boilers 4160 ☐ft Is Forced Draft fitted Yes No. and Description of Boilers Two Multitubulars Cyl Single Ended

Working Pressure 175 lbs Tested by hydraulic pressure to 265 lbs Date of test {12-7-1917 / 27-7-1917} No. of Certificate 52 + 53

Can each boiler be worked separately Yes Area of fire grate in each boiler 52 ☐ft No. and Description of Safety Valves to each boiler Two Spring Area of each valve 11 ☐" Pressure to which they are adjusted 175 lbs ☐" Are they fitted with easing gear Yes

Smallest distance between boilers or ~~uptakes~~ and bunkers ~~or woodwork~~ 7' INT ~~Mean~~ dia. of boilers 13'-6" Length 11'-0" Material of shell plates S

Thickness 15/32. Range of tensile strength 28/32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. S. R

long. seams D. Straps Diameter of rivet holes in long. seams 13/16" Pitch of rivets 7 3/4 ~~Lap of plates or~~ width of butt straps 11½" & 17½"

Per centages of strength of longitudinal joint rivets 84.03 plate 85.2 Working pressure of shell by rules 180 Size of manhole in shell 15" × 11"

Size of compensating ring 33 × 33 × 1" No. and Description of Furnaces in each boiler Three Corrugated Material S Outside diameter 44 1/4"

Length of plain part top ____ bottom ____ Thickness of plates crown 7 11/32" bottom 7 11/32" Description of longitudinal joint Weld No. of strengthening rings None

Working pressure of furnace by the rules 185 Combustion chamber plates: Material S Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 5/8

Pitch of stays to ditto: Sides 7½" × 7½" Back 7½" × 7½" Top 8 × 7½ If stays are fitted with nuts or riveted heads R. Heads Working pressure by rules 177

Material of stays S Area at smallest part 1.25 Area supported by each stay 56.25 Working pressure by rules 179 End plates in steam space:

Material S Thickness 1 1/64" Pitch of stays 16" × 16" How are stays secured D. Nuts Working pressure by rules 180 Material of stays S

Area at smallest part 5.41 Area supported by each stay 256 ☐" Working pressure by rules 219 Material of Front plates at bottom S

Thickness 3/4" Material of Lower back plate S Thickness 5/8" Greatest pitch of stays 7½" × 7½" Working pressure of plate by rules 177

Diameter of tubes 2½" Pitch of tubes 3 7/8 × 3 5/8 Material of tube plates S Thickness: Front 3/4 Back 5/8 Mean pitch of stays 7½"

Pitch across wide water spaces 13¼" Working pressures by rules 178 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 3/4" × 1½" Length as per rule 29½ 31½ Distance apart 8 Number and pitch of stays in each Three 7½"

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 ____

If not, state whether, and when, one will be sent?

As a report also sent on the Hull of the Ship?

Lloyds Rec. 1917. Lloyds Rec. 1917.

W485 0019

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

SPARE GEAR. State the articles supplied :— —

The foregoing is a correct description,

John Brennan & Co

Kingston, N.Y. Manufacturer.

BOILERS

Dates of Survey while building { During progress of work in shops - - } 1917. MAR. 23. 29. APRIL. 4-13-17-26. May 1-9-14-22 June 4-11-14-19-21-26. July 2-6-12-17-20-23-27.

{ During erection on board vessel - - - }

Total No. of visits 23.

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " "

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

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements See Boilers fixed Engines tried under steam

Completion of fitting sea connections attached Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Report Thickness of adjusting washers

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel

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

Is this machinery duplicate of a previous case If so, state name of vessel

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

These boilers have been built under Special Survey. The workmanship and materials are good and sound. They were tested by hydraulic pressure to 265 lbs and found tight and satisfactory in all respects.

These Boilers have been fitted aboard the above Vessel, in a satisfactory manner and were found satisfactory under steam.

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ : : $171.00 When applied for, 1st Aug 1917

Special ... £ : : $54.00 When received, 12th Oct 1917

1/3 to Detroit

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : :

Detroit Expenses $22.05.

Committee's Minute

Assigned See other report

J. Sellers W. Lane

Engineer Surveyor to Lloyd's Register of Shipping.

New York NOV 20 1917

Rpt. 13.

REP

Port of

No. in Reg. Book on the

Built

Owners U.S. G

Yard No. 172

DESCRIPTION O

One

42

Capacity of Dyna

Where is Dynam

Position of Main

Positions of aux

If fuses are fitte

circuits 6

If vessel is wired

Are the fuses of

Are all fuses fi

are permane

Are all switches

Total number of

A 5

B 56

C 10

D 24

E 34

2 Mast

2

12

If arc lights,

Where are th

DESCRIPTION

Main cable car

Branch cables

Branch cables

Leads to lamps

Cargo light cab

DESCRIPTIO

Joints in cabl

Are all the jo

position

Are there an

How are the