

REPORT ON MACHINERY.

REC'D NEW YORK June 22 1918

Received at London Office

Date of writing Report 12th June 1918 When handed in at Local Office 12th June 1918 Port of Philadelphia

No. in Survey held at Camden Date, First Survey 6th July 1916 Last Survey 4th June 1918

Reg. Book. on the S. S. "Gulfland"

Master O. Anderson Built at Camden By whom built New York P. B. Corp Tons Gross 5276 Net 3207

Engines made at Camden By whom made New York P. B. Corp (No 189) when made 1918

Boilers made at Do By whom made Do when made 1918

Registered Horse Power Owners Gulf Refining Co Port belonging to Camden

Nom. Horse Power as per Section 28 543 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 27", 45", 75" Length of Stroke 48" Revs. per minute 75 Dia. of Screw shaft as per rule 15" Material of screw shaft Steel as fitted 15 1/2"

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 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 5'-9"

Dia. of Tunnel shaft as per rule 13-6/4 Dia. of Crank shaft journals as per rule 14-3 Dia. of Crank pin 15" Size of Crank webs 11" x 2 1/4" Dia. of thrust shaft under collars 1 1/4" Dia. of screw 18'-0" Pitch of Screw 18'-3" No. of Blades 4 State whether moveable Yes Total surface 74 sq ft proj.

No. of Feed pumps 2 Diameter of ditto 12" x 8 1/2" Stroke 18" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 22" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 4 Sizes of Pumps 12" x 14" x 14" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room & Blt Rm: 6-3 1/2" In Holds, &c. 4 ft pump room 1-3 1/2" x 2-3" 1-3" in dwarf copperdam: 1-4" fore hold: 1-4" fore peak: 1-3 1/2" aft

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes-3 1/2"

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

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 none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record (4)) Manufacturers of Steel Carnegie Steel Co.

Total Heating Surface of Boilers 7843 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Single Ended

Working Pressure 190 lbs Tested by hydraulic pressure to 285 lbs Date of test 9-6-17 No. of Certificate 132

Can each boiler be worked separately Yes Area of fire grate in each boiler 57.75 sq ft No. and Description of Safety Valves to each boiler double spring loaded Area of each valve 8.29 sq ft Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 11" Mean dia. of boilers 14'-10 3/4" Length 11'-2 1/2" Material of shell plates Steel

Thickness 1 3/8" Range of tensile strength 78/82 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. Riv long. seams T. R. D. B. S. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 8/8" Lap of plates or width of butt straps 22 3/4"

Per centages of strength of longitudinal joint rivets 94 plates 84-4 Working pressure of shell by rules 206 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 36 1/2" x 32 1/2" x 1 1/8" No. and Description of Furnaces in each boiler 3 corrugated Material Steel Outside diameter 3'-10 1/16"

Length of plain part top 19" crown 32" Description of longitudinal joint weld No. of strengthening rings

Working pressure of furnace by the rules 204 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8" A, B.

Pitch of stays to ditto: Sides 7" x 7 1/4" Back 7 1/2" x 7" Top 7 1/2" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 256

Material of stays iron Area at smallest part 1.694 Area supported by each stay 52.5 Working pressure by rules 193 End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 16 3/8" x 15 1/4" How are stays secured D. nuts Working pressure by rules 217 Material of stays Steel

Area at smallest part 5.93 Area supported by each stay 245.9 Working pressure by rules 250 Material of Front plates at bottom Steel

Thickness 1 1/16" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 14 1/4" x 7 1/2" Working pressure of plate by rules 337

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 1/2" Material of tube plates Steel Thickness: Front 1 1/16" Back 3/4" Mean pitch of stays 9 1/8"

Pitch across wide water spaces 13 1/2" Working pressures by rules 222 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 20 7/8" Length as per rule 2'-9 1/2" Distance apart 7 1/2" Number and pitch of stays in each 4 @ 7"

Working pressure by rules 252 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

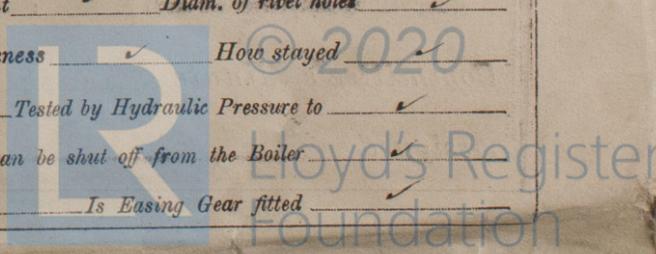
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

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

W118-0060



S.S. Gulfmaid

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

SPARE GEAR. State the articles supplied:—*2 connecting rod top end bolts & nuts; 2 connecting rod bottom end bolts & nuts; 2 main bearing bolts; 1 set of coupling bolts; 1 set of feed & bilge pump valves; a quantity of assorted bolts & nuts; iron of various sizes; one propeller shaft; 1 propeller blade; 1 eccentric strap; 1 pair of top & bottom end brasses.*

The foregoing is a correct description,

New York Shipbuilding Corp Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1916* *July 6, 21, Oct 12, 24, Nov 1, 10, 23, 24 Dec 12, 24 Jan 4, 18, 26, Feb 7, 12, 27, Mar 6, 12, 20, 27 April 12, 19, 24 up to Mar 3, 1918.* During erection on board vessel -- *Mar 29 April 15, 18, 25, May 2, 7, 13, 24, 27, June 4* Total No. of visits *67*

Is the approved plan of main boiler forwarded herewith *yes*
" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders *31.10.17* Slides *4.1.18* Covers *26.11.17* Pistons *11.12.18* Rods *30.1.18*
Connecting rods *1.10.17* Crank shaft *4.12.17* Thrust shaft *24.12.17* Tunnel shafts *✓* Screw shaft *24.12.17* Propeller *22.2.18*
Stern tube *22.1.18* Steam pipes tested *18.3.18* Engine and boiler seatings *12.3.18* Engines holding down bolts *15.4.18*
Completion of pumping arrangements *4.6.18* Boilers fixed *15.4.18* Engines tried under steam *27.5.18*
Completion of fitting sea connections *20.3.18* Stern tube *20.3.18* Screw shaft and propeller *20.3.18*
Main boiler safety valves adjusted *27.5.18* Thickness of adjusting washers *4 6/64" to 58/64"*
Material of Crank shaft *Steel* Identification Mark on Do. *189* Material of Thrust shaft *Steel* Identification Mark on Do. *189*
Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Steel* Identification Marks on Do. *189*
Material of Steam Pipes *Steel* Test pressure *600 lbs per 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, except*
Is this machinery duplicate of a previous case *boiler* If so, state name of vessel *"Gulfmaid"*

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

The machinery has been built under special survey; the material and workmanship being good, and proved satisfactory on steam trial. It is submitted that this vessel be eligible for a record of + L.M.C. 6.18 in the Register Book; also a notation of "Fitted for oil fuel 6.18. Flash Point above 150°F."

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.18. F.D.

Fitted for oil fuel 6.18. F.P. above 150°F.

AWD. 19/7/18

The amount of Entry Fee ... \$ 15 : 00 :
Special ... \$ 235 : 75 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) \$ 7 : 00 :
When applied for, *18.6.19*
When received, *20.7.19*

A. T. Thomas
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *New York JUN 24 1918*

Assigned *+ L.M.C. 6.18*
Fitted for oil fuel 6.18
F.P. above 150°F.

Elec. dt 30.



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