

REPORT ON MACHINERY

No. 3115

Received at London Office

Date of writing Report July 21 1919 When handed in at Local Office

Port of San Francisco California

No. in Survey held at Oakland Calif.

Date, First Survey Nov 1

Last Survey July 16 1919

Reg. Book.

89 on the Steel Screw Steamer "Monassee"

(Number of Visits 30)

Gross 6092
Tons Net 4530

Built at Oakland Cal By whom built Moore Shipbuilding Co When built 1919

Engines made at Indianapolis Ind By whom made Midwest Engine Co when made 1919

Boilers made at Oakland Calif By whom made Moore Shipbuilding Co when made 1919

Registered Horse Power 467 Owners United States Shipping Bd Port belonging to San Francisco

Shaft Horse Power at Full Power 2800 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Reduction Gear Turbine No. of Turbines 2

Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft
Diameter of Journals Distance between Centres of Bearings Diameter of Pitch Circle
Diameter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel
Width of Face Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule 12.27" 12.96"
as fitted 13.25"
No. of Screw Shafts one Diameter of same as per rule 7.295" 14"
as fitted 14.625" Diameter of Propeller 16'3" Pitch of Propeller 14'2"
No. of Blades 4 CONTINUOUS LINER State whether Moveable Yes Total Surface 81.2 sq ft Diameter of Rotor Drum, H.P. L.P. Astern
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3600 Propeller 90

PARTICULARS OF BLADING.

	H.P.			L.P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps 2- 12" 8" 24" Simplex
No. and size of Bilge pumps 3- 6" 5 3/4" 6" 12" 10" 12" 12" 8 1/2" 12" V
No. and size of Bilge suction in Engine Room 5- 3 1/2"

In Holds, &c. F.P. 1-3" No 1 Hold 2-3 1/2" No 2 Hold 2-3 1/2"

No 3 Hold 2-3 1/2" No 4 Hold 2-3 1/2" Aft Pk. 1-3"

No. of Bilge Injections 1 size 12" Connected to condenser, or to circulating 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 all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves

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 deck

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

Total Heating Surface of Boilers 8745 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Scotch Marine

Working Pressure 210 lbs. Tested by hydraulic pressure to 315 lbs. Date of test 27-12-18 No. of Certificate 160

Can each boiler be worked separately Yes Area of fire grate in each boiler Oil Bunker No. and Description of Safety Valves to

each boiler Twin 3 1/2" Area of each valve 19.625 sq in Pressure to which they are adjusted 210 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 15'3.625" Length 11'0" Material of shell plates steel

Thickness 1.625" Range of tensile strength 60000 to 71680 Are the shell plates welded or flanged flanged Descrip. of riveting: cir. seams double riv

long. seams Single riv Diameter of rivet holes in long. seams 19/16" Pitch of rivets 9.66" Lap of plates or width of butt straps 22"

rivets 90.85 Working pressure of shell by rules 230 Size of manhole in head 12" x 16"

Per centages of strength of longitudinal joint plates 83.82

Size of compensating ring No. and Description of Furnaces in each Boiler 3 Monitors Material steel Outside diameter 48 1/2"

Length of plain part top 2 1/2" Thickness of plates crown 2 1/2" Description of longitudinal joint welded No. of strengthening rings

bottom 2 1/2" Working pressure of furnace by the rules 222 Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"

Pitch of stays to ditto: Sides 7 3/4" x 7 1/4" Back 7 3/4" x 7 1/4" Top 8 1/2" x 7" If stays are fitted with nuts or riveted heads riveted heads Working pressure by rules 249

Material of stays steel Diameter at smallest part 1.755" Area supported by each stay 56.3125 sq in Working pressure by rules 280. End plates in steam space

Material steel Thickness 1 1/4" Pitch of stays 19" x 17" How are stays secured double nuts Working pressure by rules 215.38 Material of stays steel

Diameter at smallest part 10.321" Area supported by each stay 325 sq in Working pressure by rules 330. Material of Front plates at bottom steel

Thickness 13/16" Material of Lower back plate steel Thickness 1/16" Greatest pitch of stays 14" x 15 1/2" Working pressure of plate by rules 274

Diameter of tubes 2 1/2" Pitch of tubes 3 5/8" Material of tube plates steel Thickness: Front 1/16" Back 1/16" Mean pitch of stays 7.5

Pitch across wide water spaces 13" Working pressures by rules 268.6 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 11" x 15" Length as per rule 34" Distance apart 8 3/4" Number and pitch of stays in each 4 at 7"

Working pressure by rules 267 Steam dome: description of joint to shell % of strength of joint Diameter

Thickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets

Working pressure of shell by rules Crown plates: Thickness How stayed

W1129-0033

Lloyd's Register
Foundation

SUPERHEATER. Type *Foster* Date of Approval of Plan *✓* Tested by Hydraulic Pressure to *630 lbs.*
Date of Test *17-1-19* by *F.H.O.* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *Yes*
Diameter of Safety Valve *1 1/2"* Pressure to which each is adjusted *215 lbs.* Is Easing Gear fitted *No*

IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *1 set of high speed pinion bearings. 1 complete set of turbine shaft and diaphragm packing rings. 1 set of high speed gears and low speed pinion. 1 set of high speed pinions with helical couplings. 1 set of liners, coupling bars. Large asst. of turbine & induction gear casing bolts, nuts, washers, studs. 2 safe valve springs. 1 set of coupling bolts for each size of coupling. 1 complete set of valves for each pump aboard, including feed, fire, bidge & ballast pumps. 1 propelled blade. 10 mahole gaskets, 20 boiler tubes, 50 condenser tubes, 100 females. Large asst. of bolts, nuts, washers, rods & bars.*

The foregoing is a correct description.

Moore Shipbuilding Co

Manufacturer.

Dates of Survey while building *Nov 1-14-18-29 Dec 5-11-18-26-27 Jan 9* *July 2-11-12-16*
During progress of work in shops --
During erection on board vessel --- *Dec 17- Jan 29-23-31 Feb 21 Mar 12-24 April 7-21 May 5-15 June 4-13-20-25-30*
Total No. of visits *30.* Is the approved plan of main boiler forwarded herewith *No*

Dates of Examination of principal parts—Casings Rotors Blading Gearing
Rotor shaft *✓* Thrust shaft Tunnel shafts *May 15* Screw shaft *Dec 20* Propeller *Jan 19*

Stern tube *Dec 17* Steam pipes tested *June 20-25* Engine and boiler seatings *Jan 9-31 Feb 21* Engines holding down bolts *July 12*

Completion of pumping arrangements *June 25* Boilers fixed *April 21* Engines tried under steam *July 12*

Main boiler safety valves adjusted *July 12* Thickness of adjusting washers *Locknuts*

Material and tensile strength of Rotor shaft *steel* Identification Mark on Do.

Material and tensile strength of Pinion shaft *steel* Identification Mark on Do.

Material of Wheel shaft *steel* Identification Mark on Do. Material of Thrust shaft *steel* Identification Mark on Do.

Material of Tunnel shafts *steel* Identification Marks on Do. * Material of Screw shafts *steel* Identification Marks on Do. *W.C. 23-*

Material of Steam Pipes *steel* Test pressure *675 lbs.*

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.* *"Guimba"*

Is this machinery a duplicate of a previous case *No.* If so, state name of vessel *✓*

6 shafts *1 shaft* *1 shaft*

Lloyd's *Lloyd's* *Lloyd's*

No. 446 *No. 446* *No. 446*

W.C. 29-7-18 *W.C. 3-7-18* *W.C. 5-8-18*

Midwest Engine Co No 32778. Radaw Corshund

Falk Red. Heav No 4727 *AWL No 24-2-19*

Foster Superheater *W.C. 630 lbs.*

17-1-19 F.H.O.

This machinery was built under the special survey of the American Bureau and

certificate on same is attached hereto. Before and during installation the mach

was examined by the undersigned and same was found to be sound and

the workmanship good. In my opinion this machinery is eligible to be class

in the Register Book with record of L.N.C. 7-19 Fitted for fuel oil 7-19

F.P. above 150°F. Electric Light.

The amount of Entry Fee ... *15.00* : When applied for, *July 24 1919*

Special ... *216.75* : *✓*

Castings & Exp. ... *10.25* : *20/9/19*

Donkey Boiler Fee ... *13.35* : *20/9/19*

Travelling Expenses (if any) ... *13.35* : *20/9/19*

Committee's Minute *New York AUG 5 - 1919*

Assigned *+ L.N.C. 7-19*

MACHINERY CERTIFICATE

WRITTEN *21/8/19*

21/8/19

21/8/19

21/8/19