

REPORT ON MACHINERY.

No. 1624

Completed Aug. 2nd. 1918
 Date of writing Report July 31st. 1918
 Date, First Survey May 11th. 1917. Last Survey July 31st. 1918
 Port of Pittsburgh Pa & New Orleans
 in Survey held at Ridgway Pa. & New Orleans
 on the New Steel Y. S. S. "MEXOIL" (Alabama New Orleans Transportation Coy. S.S. 353)
 Gross Tons 1370.
 Net Tons 760.
 Master J. W. Mein Built at Violet, La. By whom built Alabama & New Orleans Transportation Coy. when built 1918
 Engines made at Ridgway By whom made Ridgway Dynamo and Engine Coy. when made 1917
 Boilers made at Buffalo By whom made Lake Erie Boilers Works when made 1917
 Registered Horse Power 1164 Owners Mexican Petroleum Coy. Port belonging to Los Angeles, Cal.
 Shaft Horse Power at Full Power 820. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
 N.H.P. 135

COMBINE ENGINES, &c.—Description of Engines One Turbine coupled direct to A.C. Generator No. of Turbines One
 Diameter of Rotor Shaft Journals, H.P. 3 3/8 L.P. ✓ Diameter of Generator Shaft 3 3/8 of motor shafts 6 1/2
 Diameter of Journals 4 1/2 Distance between Centres of Bearings 6 5/8 Diameter of Pitch Circle ✓
 Diameter of Motor Shaft Bearings 4 1/2 Distance between Centres of Bearings 4 1/2 Diameter of Pitch Circle of Wheel 5 1/2
 Thickness of Face ✓ Diameter of Thrust Shaft under Collar 4 1/2 Diameter of Tunnel Shaft 5 1/2
 Diameter of Screw Shafts 4 1/2 as per rule 6 5/8 Diameter of Propeller 7 0 Pitch of Propeller 5 1/2
 Diameter of Blades 4 State whether Moveable No. Total Surface 10 ft each prop Diameter of Rotor 2 1/2 H.P. 2 1/2 L.P. 2 1/2 Astern ✓
 Thickness at Bottom of Groove, H.P. ✓ L.P. ✓ Astern ✓ Revs. per Minute at Full Power, Turbine 3600 Propeller 19 1/2

PARTICULARS OF BLADING.

H.P. Continued

ASTERN.

H.P.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	H.P.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	ASTERN.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
EXPANSION	20"	28.160"	one	1 1/2"	28.160"	one					
"	2 1/2"	28.525"	one	10"	28.860"	one					
"	3 1/2"	28.598"	one	11"	29.180"	one					
"	50"	28.160"	one	12"	29.160"	one					
"	60"	28.160"	one	13"	30.260"	one					
"	76"	28.090"	one	14"	31.160"	one					
"	95"	29.110"	one								
"	160"	28.160"	one								

and size of Feed pumps 2 feed pumps independent 6" x 4" x 6" simplex.

and size of Bilge pumps one bilge pump 6" x 7 1/2" x 12"

and size of Bilge suction in Engine Room 2 - 4"

In Holds, &c. one 4" in fore hold. one 4" in pump

of Bilge Injections 1 sizes 8" Connected to condenser or to circulating pump Yes. Is a separate Donkey Suction fitted in Engine Room & size 2 - 4"

all the bilge suction pipes fitted with roses Yes. Are the roses in Engine room always accessible Yes.

all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks valves.

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 below.

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.

all pipes are carried through the bunkers None. How are they protected ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

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

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

BOILERS, &c.—(Letter for record) Manufacturers of Steel See Separate Rpt.

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
 Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
 Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length 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 rivets Working pressure of shell by rules Size of manhole in shell plates
 Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
 Length of plain part top crown Thickness of plates Description of longitudinal joint No. of strengthening rings bottom bottom
 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
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter 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 Diameter of rivet holes Pitch of rivets
 Working pressure of shell by rules Crown plates: Thickness How stayed

003895-003905-0182

SUPERHEATERS. Type *Foster*

Date of Approval of Plan

See Test Cert.

Tested by Hydraulic Pressure to

*600 lb.*Date of Test *22-6-17 F.W.T.*

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

190 lb.

Is Easing Gear fitted

*Yes.*IS A DONKEY BOILER FITTED? *None.*

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:

Tail shaft. 2 turbine main bearing shells. Alternator main bearing shells. Exciter main bearing shell. 2 main motor bearing shells. 12 pins, washers & bushings for turbine coupling. 8 Alternator slip ring brushes. 24 motor slip ring brushes. 8 D.C. Exciter brushes. 8 oil eng. exciter brushes. 4 ice machine motor brushes. 1 Exciter armature & shaft. 12 Condenser tubes and 25 ferrules. 2 thrust bearings complete. 1 shaft collar. 1 spare set of 6 phase 1 set of shaft coupling bolts. Assorted bolts & nut & rim of various sizes.

The foregoing is a correct description.

BIDGWAY DYNAMO & ENGINE CO.

Manufacturer.

Secretary.

Dates of Survey while building

During progress of work in shops -
During erection on board vessel -
Total No. of visits

May 11, 26, June 28 Aug 29-31 Oct 9-29 Total 4 visits.
Jan 22, 25, 26, 30, Feb 7, 12, Mar 5, 11, 19, 28, Apr 9, 12, 23, 29, May 4, 11, 17, 24, June 5, 8, 14, 25, July 1, 9, 24, 31.

Is the approved plan of main boiler forwarded herewith

No

Dates of Examination of principal parts-Casings

11-5-17

Rotors

11-5-17

Blading

28-6-17

Generator Shaft

29-8-17

motor and shaft

29-8-17

Thrust shaft

31-8-17

Tunnel shafts

✓

Screw shafts

6-5-17

Propeller

Jan 22, 25

Stern tube

Jan 7, 22

Steam pipes tested

Jan 17

Engine and boiler seatings

Nov 21, 26

Engines holding down bolts

Jan 17

Completion of pumping arrangements

July 1st

Boilers fixed

May 24

Engines tried under steam

July 31st

Main boiler safety valves adjusted

July 9th

Thickness of adjusting washers

✓

Material and tensile strength of Rotor shaft

*Nickel Steel**40,000 lbs*

Identification Mark on Do. No 1. W.B.

Material and tensile strength of Generator shaft

*Forged Steel**41,200 lbs*

Identification Mark on Do. No 2. W.B.

Material of motor shafts

Forged Steel

Identification Mark on Do. No 3. W.B. No 4. W.B.

Material of Thrust shaft

Thrust end of motor shafts

Identification Mark on Do.

Material of Tunnel shafts

✓

Identification Marks on Do.

✓

Material of Screw shafts

Steel

Identification Marks on Do.

Material of Steam Pipes

Steel

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.

Yes.

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

Yes.

Is this machinery a duplicate of a previous case

No

If so, state name of vessel

✓

Tail shafts fitted with two liners.

General Remarks

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

This Machinery has been built under Special Survey the materials & workmanship are of good quality and the shop steaming trials proved satisfactory. It has been shipped to New Orleans to be fitted in the vessel. New Orleans surveyors notified. The machinery has been fitted on board in accordance with Rules, trial trips were made and all machinery found to work satisfactorily.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.18

*1 STEAM TURBINE & 2 ELECTRIC MOTORS DRIVING 2 SCREW SHAFTS
FITTED FOR OIL FUEL 7.18
F.P. ABOVE 150°F*

The amount of Entry Fee

\$ 10.00

Special Fee

\$ 10.00

Donkey Boiler Fee

£ -

Travelling Expenses (if any)

£ 10.00

1/3 Special Fee

\$ 41.00

Committee's Minute

New York AUG 13 1918

Assigned

*+ LMC 7.18
Elec. Lt.*

William Butler Buchanan
Engineer Surveyor to Lloyd's Register of Shipping.



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