

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 7969

FEB 17 1941

Date of writing Report 10 Dec 40 When handed in at Local Office 18 Dec 40 Port of Philadelphia
 No. in Survey held at 19 Reg. Book. Date, First Survey 15 Apr 40 Last Survey 10 Nov 1940
 Number of Visits 30

on the ^{Single} ~~Double~~ Screw vessel AMERICA. SUN. Tons { Gross 10248 Net 6891

Built at Chester, Pa By whom built Sm SB & DD Co Yard No. 196 When built 1940

Engines made at " By whom made " Engine No. When made "

Donkey Boilers made at Cartaret, NJ By whom made Foster Wheeler Co Boiler No. When made "

Horse Power 7500 Owners Sm. Oil Co Port belonging to Philadelphia

Horse Power as per Rule 1190 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

for which vessel is intended Carrying Petroleum in bulk.

ENGINES, &c. Type of Engines Sm. Diesel Opposed Piston 2 or 4 stroke cycle 2 Single or double acting Single

Pressure in cylinders 600 lbs Diameter of cylinders 32" Length of stroke 55 3/4" No. of cylinders 5 No. of cranks 6

Indicated Pressure 96.5 bearings, adjacent to the Crank, measured from inner edge to inner edge 109 51 3/4" Is there a bearing between each crank Yes

Revolutions per minute 94 Flywheel dia. None Weight Means of ignition Compression Kind of fuel used Bunker "C"

ft. { Solid forged dia. of journals as per Rule 23" as fitted 24" Crank pin dia. 2 1/2" Crank Webs Mid. length breadth 48" 46 3/4" Thickness parallel to axis 10 1/16" 13 1/2" Mid. length thickness 13 1/2" 9 3/4" Thickness around eyehole 10 1/16" 13 1/2"

Propeller Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 19.008" Thrust Shaft, diameter at collars as per Rule as fitted 20" 23"

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 20.708" 21 5/8" Is the { screw } shaft fitted with a continuous liner { Yes }

Liners, thickness in way of bushes as per Rule as fitted 738 1 1/16" Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the

boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

Liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 4 1/16" + 4' 2 1/2" with 2 3/8" space between them

Propeller, dia. 21'-8" Pitch 17'-0" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 143.3 sq. feet

Method of reversing Engines Sliding camshaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Feed Thickness of cylinder liners 1 1/8" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Eng. Water Pumps, No. 2 FRESH " " MAIN ENG Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. None Diameter ENGINE ROOM Stroke MAIN PUMP ROOM 2. 10" x 7" x 10" Can one be overhauled while the other is at work

How driven Steam How driven Steam How driven Steam

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AIR RECEIVERS:—Have they been made under survey. *Ays* ✓ State No. of Report or Certificate *4111. 4089 WHR.*

Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Ays* ✓

Can the internal surfaces of the receivers be examined and cleaned *Ays* ✓

Aux
Injection Air Receivers, No. *1*

Cubic capacity of each *12 cu ft*

Is a drain fitted at the lowest part of each receiver *Ays* ✓

Internal diameter *15"*

thickness *1/2"*

Seamless, lap welded or riveted longitudinal joint *Seamless*

Material *Steel*

Range of tensile strength *55,000 to 65,000*

Working pressure *805*

Starting Air Receivers, No. *3*

Total cubic capacity *486 cu ft*

Internal diameter *42"*

thickness *1 3/16"*

Seamless, lap welded or riveted longitudinal joint *Butt welded*

Material *Steel*

Range of tensile strength *55 to 65,000*

Working pressure *650*

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only *Ays* ✓

If so, is a report now forwarded? *Ays* ✓

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers *Nov 3. 1939. Oct 25. 1940*

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Ays* ✓

State the principal additional spare gear supplied

1 Upper & lower piston rods, 1 main piston, 2 piston skirts, 1 engine brake valve complete, 5 hoses for piston water service, 1 complete feed lubricator, 5 fuel oil pump nuts & guides, 1 bundle of tubes for lubricating oil cooler.

The foregoing is a correct description.

L. M. C. Connelley
SUN SHIPBUILDING & DRY DOCK CO.

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	During erection on board vessel - -	Total No. of visits
	<i>April 15. 17. May 23. June 10. 14. 29. July 3. 22. 29. 31. Aug 1. Sept 5. 13. 24. Oct 3. 30. 1940</i>	<i>Aug 1. 6. 21. Sept 9. Oct 10. 11. 14. 16. 17. 18. 25. Nov 4. 7. 10. 1940</i>	<i>16</i> <i>14</i>

Dates of Examination of principal parts—	Cylinders	Covers	Pistons	Rods	Connecting rods
Crank shaft	<i>31 July 40</i>	<i>24 Sept 40</i>	<i>Oct 3. 40</i>	<i>Sept 9. 40</i>	<i>Oct 3. 40</i>
Flywheel shaft					
Thrust shaft	<i>29 July 40</i>				
Screw shaft	<i>22 July 40</i>				
Propeller	<i>22 July 40</i>				
Stern tube	<i>22 July 40</i>				
Intermediate shafts	<i>29 July 40</i>				
Tube shaft					
Completion of fitting sea connections	<i>29 July 40</i>				
Completion of pumping arrangements	<i>7 Nov 1940</i>				
Engines holding down bolts	<i>18 Oct 40</i>				
Engines tried under working conditions	<i>7 Nov 1940</i>				
Crank shaft, Material	<i>OH Steel</i>				
Identification Mark	<i>See forging marks</i>				
Thrust shaft, Material	<i>OH Steel</i>				
Identification Mark	<i>4078 WHR</i>				
Flywheel shaft, Material					
Identification Mark					
Intermediate shafts, Material	<i>OH Steel</i>				
Identification Marks	<i>5620 HBC</i>				
Screw shaft, Material	<i>OH Steel</i>				
Identification Mark	<i>Reg 4100 WHR.</i>				
Identification Marks on Air Receivers	<i>3 Starting air receivers</i>				
	<i>1 aux " "</i>				
	<i>LLOYDS. 4111. WHR. 24.7.40.</i>				
	<i>4089 WHR 14.6.40.</i>				

Is the flash point of the oil to be used over 150° F. *Ays* ✓

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Ays* ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

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

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

This installation has been constructed under Special Survey and in accordance with the approved plans, the workmanship and materials are good, the installation has been tried out under full power & found satisfactory. In my opinion this installation is eligible to receive the Record of +LMC 11. 40.

After the trial trip, the welded bedplate & entablatures were carefully examined & no signs of fractures or weakness was discovered. Approved plans to be forwarded with sister ship.

The amount of Entry Fee

\$10.00

Special

\$699.00

Donkey Boiler Fee

\$40.00

Travelling Expenses (if any)

\$40.00

Fee for bedplates *65 \$.*

Fee for 4 air tanks *120.00 \$.*
400 \$.

When applied for,

4 Jan. 1941

When received,

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Committee's Minute

NEW YORK

JAN 8 - 1941

Assigned *+LMC - 11, 40. Oil Eng.*

M. D. Punham
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation