

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No.

26 JAN 1942

Date of writing Report *May 27 1941* When handed in at Local Office *Army Base, Norfolk Va*

Port of *Newport News Va*

No. in Survey held at *Reg. Book.*

Date, First Survey *Oct 29 40*

Last Survey

19

Number of Visits *5*

on the *Single* Twin *Triple* Screw vessel

Tons *Gross*
Net

Built at *Wm. H. Galt, Alabama*

By whom built *Alabama D. P. Shipbuilding Co.*

Card No. *223* When built

Engines made at *Cubana New York*

By whom made *W. C. North & Son*

Engine No. *STAR. 2054*

When made *1929*

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power *Per Rule 1200*

Owners *National Fuel Oil Company Inc*

Port belonging to

Nom. Horse Power as per Rule *625*

Is Refrigerating Machinery fitted for cargo purposes *No.*

Is Electric Light fitted *Yes.*

Trade for which vessel is intended

OIL ENGINES, &c. Type of Engine *Vertical Heavy Oil Turbine* 2 or 4 stroke cycle *4* Single or double acting *Single*
Maximum pressure in cylinders *600-650* Diameter of cylinders *20* Length of stroke *24* No. of cylinders *8* No. of cranks *8*
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *25 1/16*
Revolutions per minute *250* Flywheel dia. Weight Means of ignition *Compression* and of fuel used *Diesel oil*
Crank Shaft, dia. of journals *as per Rule 12 1/4* Crank pin dia. *13* Crank Webs Mid. length breadth *20 3/4* Thickness parallel to axis *as per Rule*
as fitted 13 Mid. length thickness *6 1/2* Thickness around eyehole *as per Rule*

Flywheel Shaft, diameter *as per Rule*
as fitted

Intermediate Shafts, diameter *as per Rule*
as fitted

Thrust Shaft, diameter at collars *as per Rule*
as fitted

Tube Shaft, diameter *as per Rule*
as fitted

Screw Shaft, diameter *as per Rule*
as fitted

Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes *as per Rule*
as fitted

Thickness between bushes *as per rule*
as fitted

Is the after end of the liner made watertight in the

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

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

Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed surface sq. feet

Method of reversing Engines *Direct*

Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes.*

Means of lubrication

Thickness of cylinder liners *1 1/2*

Are the cylinders fitted with safety valves *Yes.*

Are the exhaust pipes and silencers water cooled or lagged with

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

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

What special arrangements are made for dealing with cooling water if discharged into bilges

Bilge Pumps worked from the Main Engines, No. *None* Diameter Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size
How driven

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
In Pump Room

Pumps, No. and size:—In Machinery Spaces

In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are the Bilge Suctions in the Machinery Spaces

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are they fitted with Valves or Cocks

Are all Sea Connections fitted direct on the skin of the ship

Are the Overboard Discharges above or below the deep water line

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

How are they protected

What pipes pass through the bunkers

Have they been tested as per Rule

What pipes pass through the deep tanks

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

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. *One Per Rule* No. of stages *3*

Diameters *3 1/2 - 15 - 17* Stroke *14 1/4*

Driven by *Crank Shaft*

Auxiliary Air Compressors, No. No. of stages

Diameters Stroke

Driven by

Small Auxiliary Air Compressors, No. No. of stages

Diameters Stroke

Driven by

Scavenging Air Pumps, No. Diameter Stroke

No.:

Driven by

Auxiliary Engines crank shafts, diameter *as per Rule*
as fitted

Position

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned *No.*
2 Small
2 Large
High Pressure Air Receivers, No. *2* Cubic capacity of each *2.427 / 6.04 Cu ft*

Is a drain fitted at the lowest part of each receiver
Internal diameter *8 7/11* thickness *3/4 9/12*

Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength

Working pressure *by Rules 1129 / 1467 lbs*
Actual 1000 lbs

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Range of tensile strength

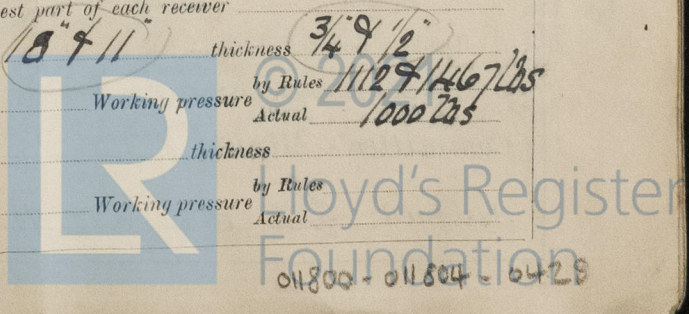
Working pressure *by Rules*
Actual

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure *by Rules*
Actual



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.

Dates
of Survey
while
building

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

Crawford in Harbor. Oct 29. Nov. 23. Dec. 12. 1940. Jan 16/30. 1941.

Dates of Examination of principal parts—Cylinders 29.10.40 Covers 29.10.40 Pistons 29.10.40 Rods 30.11.40 Connecting rods 30.11.40

Crank shaft 23.11.40 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material Steel Identification Mark A.B.S. 7.24.2R. E.G.S. Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

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

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 YES. If so, state name of vessel M/S PETROFUEL.

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

These engines are of good sturdy design and all forgings and castings requiring test were carried out by the American Bureau of Shipping. The engines have been thoroughly overhauled and adjusted as found necessary. They have now been dispatched to Mobile, Ala., for fitting on board. The case is submitted for the favorable consideration of the Committee for the record of LMC. with date upon completion of the survey.

The amount of Entry Fee .. £ : : When applied for,
Special £ : : 19.
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 19.

Committee's Minute

NEW YORK DEC 10 1941

Assigned See MOB. RPT. NO. 1809.

C. J. Hudson
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation