

REPORT ON OIL ENGINE MACHINERY.

No. 2006

Received at London Office.

of writing Report. 30th July 43 When handed in at Local Office. 9th Aug. 43 Port of MOBILE, ALABAMA

in Survey held at MOBILE Date, First Survey 8th January Last Survey 2nd July 19 43

Book. Number of Visits 56

Oil on the Twin Single Triple Quadruple Screw vessel "ST. JAMES" (ex "WILLIAM C. McTARNAHAN") Tons Gross 7302 Net 5826

ilt at Mobile, Ala. By whom built Alabama D.D. & S.B. Co. Yard No. 223 When built 1941

gines made at Mt. Vernon, Ohio By whom made Cooper Bessemer Corp. Engine No. 2134-5 When made 1942

Monkey Boilers made at Boston, Mass. By whom made U.S. Navy Yard Boiler No. - When made 1943

ake Horse Power 1323 each Owners U.S. War Shipping Administration Port belonging to Wilmington, Del.

om. Horse Power as per Rule 374 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ade for which Vessel is intended Carrying petroleum in Bulk.

IL ENGINES, &c.—Type of Engines Heavy Oil Trunk Piston 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 650 lbs. Diameter of cylinders 15 1/2" Length of stroke 22" No. of cylinders 8 x 2 No. of cranks 8

Mean Indicated Pressure 127 lbs. 17" Is there a bearing between each crank yes

an of bearings, adjacent to the Crank, measured from inner edge to inner edge 17" Solid Means of ignition injection Kind of fuel used Diesel

olutions per minute 277 Flywheel dia. 49" Weight 5,812 lbs. Mid length breadth 17" Thickness parallel to axis -

ank Shaft, Solid forged as per Rule 10" Crank pin dia. 11" Crank Webs Mid length thickness 4-3/8" Thickness around eyehole -

as fitted 11" as per Rule - Thrust Shaft, diameter at collars as fitted 10"

Intermediate Shafts, diameter as fitted - Is the {tube} shaft fitted with a continuous liner {yes} in tube

the Shaft, diameter as per Rule approved as fitted 9-3/4" Screw Shaft, diameter as per Rule approved as fitted 9-13/16" Is the {screw} shaft fitted with a continuous liner {two liners}

as fitted 9-3/4" as per Rule approved as fitted 5/8" Thickness between bushes as fitted 5/8" Is the after end of the liner made watertight in the

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

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 tight fit.

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

aft yes If so, state type Guthans Patent Length of Bearing in Stern Bush next to and supporting propeller 3'-1"

propeller, dia. 8 ft. Pitch at 2'-8" No. of blades 4 Material bronze whether Moveable no Total Developed Surface 24.89 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

forced Thickness of cylinder liners 1-1/4" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

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

ooling Water Pumps, No. 4 (1 fresh & 1 sea water each engine) Is the sea suction provided with an efficient strainer which can be cleared within the vessel. yes

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 1 - 400 G.P.M., 1 - 260 G.P.M. & 2 - 200 G.P.M. How driven Electric motor.

the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements 3 Cargo Pumps deep well type 6" suction Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 366 G.P.M.

Ballast Pumps, No. and size 1 - 5", 1 - 4", 5 - 3" Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

re two independent means arranged for circulating water through the Oil Cooler yes In Pump Room 1 - 2"

pumps, No. and size:—In Machinery Spaces 1 - 5", 1 - 4", 5 - 3" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 5", 1 - 4"

Holds, &c. 1 - 3" Aft Peak 1 - 5" Fore Peak Are the Bilge Suctions in the Machinery Spaces yes

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes. yes Are they fitted with Valves or Cocks yes

Are all Sea Connections fitted direct on the skin of the ship yes Are the Overboard Discharges above or below the deep water line below

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates. yes 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. yes How are they protected pipe tunnels

That pipes pass through the bunkers bilge suction Have they been tested as per Rule yes

That pipes pass through the deep tanks cargo pipe lines

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

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

the compartment to another yes Is the Shaft Tunnel watertight - Is it fitted with a watertight door - worked from -

on 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. 2 No. of Stages 2 Diameters 5" x 2 1/2" Stroke 4" Driven by Main Eng. (clutch)

Auxiliary Air Compressors, No. 3 No. of stages 2 Diameter 6 1/2" x 2 1/2" Stroke 5 1/2" Driven by 1-elec. motor

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 4 1/2" x 4 1/2" Stroke 3 1/2" Driven by steam eng.

What provision is made for first Charging the Air Receivers. Steam driven compressor.

Exhausting Air Pumps, No. - Diameter - Stroke - Driven by -

Auxiliary Engines crank shafts, diameter as per Rule 5.06 No. 2 - 8 cyl. 1 - 6 cyl. Position On gallery deck in engine room.

Have the Auxiliary Engines been constructed under special survey no Is a report sent herewith yes

AIR RECEIVERS:—Have they been made under survey Original Receivers State No. of Report or Certificate Mob.Rpt.No.1809 pt.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
Can the internal surfaces of the receivers be examined and cleaned small - no (see rpt.9)
large - yes Is a drain fitted at the lowest part of each receiver yes

Injection Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure - by Rules - Actual -

Starting Air Receivers, No. 3 Total cubic capacity 786.04 cu.ft. Internal diameter 1 - 17-3/4" thickness 13/16"
2 - 48" thickness 1"

Seamless, lap welded or riveted longitudinal joint 1 seamless Material steel Range of tensile strength - Working pressure - by Rules 1200 & 402 Actual 400 lbs.
1 fusion weld

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

Is the donkey boiler intended to be used for domestic purposes only Operating deck winch and tank cleaning system.

PLANS. Are approved plans forwarded herewith for Shafting yes Receivers - Separate Fuel Tanks -
(If not, state date of approval)

Donkey Boilers yes General Pumping Arrangements - Pumping Arrangements in Machinery Space yes

Oil Fuel Burning Arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied -

The foregoing is a correct description

ALABAMA DRY DOCK & SHIPBUILDING CO.

Assistant General Superintendent

Manufacturer.

Dates of Survey while building During erection on board vessel - - -
During erection on board vessel - - -
Total No. of visits 56

Dates of Examination of principal parts—Cylinders 20/6/43 Covers 20/6/43 Pistons 20/6/43 Rods - Connecting rods 20/6/43

Crank shaft 20/6/43 Flywheel shaft Tube shaft Thrust shaft 20/6/43 Intermediate shafts - Tube shaft 13/4/43

Screw shaft 13/4/43 Propellers 3/4/43 Stern tube 16/2/43 Engine seatings 1/4/43 Engines holding down bolts 27/5/43

Completion of fitting sea connections 16/4/43 Completion of pumping arrangements 27/6/43 Engines tried under working conditions 29/6/43

Crank shaft, Material O.H.steel Identification Mark AB 121 Flywheel shaft, Material - Identification Mark -

Thrust shaft, Material O.H.steel Identification Mark AB 1825 & 1848 Intermediate shafts, Material - Identification Marks -

Tube shaft, Material O.H.steel Identification Mark Lloyds 1286-7 Screw shaft, Material O.H.steel Identification Mark Lloyds 1284-

Identification Marks on Air Receivers Original.

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

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

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

Is this machinery duplicate of a previous case - If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c. The main machinery of this vessel has been

built under the Special Survey of American Bureau of Shipping (certificate attached). The machinery

has been fitted on board the vessel in accordance with the Rules and approved plans, examined so far

as practicable during installation and afterwards tried under full working sea conditions with

satisfactory results.

In my opinion the machinery of this vessel is in good and safe working condition and is

eligible to be classed with records of LMC(R) 7,43 and notations N.E. 7,43, N.D.B. 7,43 and Tail

Shafts Seen (New) C.L. 7,43.

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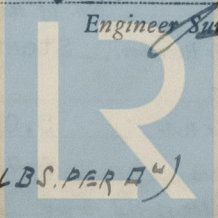
The amount of Entry Fee ... £ : : When applied for,
Special ... £210.00 : : Aug. 13 1943
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute NEW YORK AUG 18 1943

Assigned N.E. 42 FITTED 7,43. NDB-7,43. (110 LBS. PER sq)

LMC-7,43. T.S.N. 7,43.

R. R. Dodge
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation