

REPORT ON OIL ENGINE MACHINERY.

No. 9371
JUN 1949

Received at London Office

of writing Report 2nd Feb. 1949 When handed in at Local Office. 19 Port of San Francisco and Seattle

No. in Survey held at Portland, Oregon Date, First Survey 17th June 48 Last Survey 29th Jan. 1949

leg. Book. previously Single Motor on the ~~type~~ Screw vessel "NELLY" ex "Long Island" ex "Mormacmail" Number of Visits 19

tered on the ~~type~~ Quadruple Tons {Gross 7886
Net 4682

uilt at Chester, Pa. By whom built Sun S.B. & D.D. Corp. ~~XXXXXX~~ (PF 1091 When built 1940
(PA 1090
(SF 1088
(SA 1089

Engines made at St. Louis, Mo. By whom made Busch-Sulzer Bros. Diesel Engine No. 1088 When made 1940
Eng. Co.

Donkey Boiler made at New York By whom made Foster Wheeler Corp. Boiler No. WHB 164 When made 1940

Brake Horse Power 8900 Owners Carribbean Land & Shipping Corp. Port belonging to Panama

Nom. Horse Power as per Rule 2060 $MN = 2670$ Is Refrigerating Machinery fitted for cargo purposes. Yes Is Electric Light fitted. Yes

Trade for which Vessel is intended Freighter

OIL ENGINES, &c.—Type of Engines Vertical enclosed Trunk Piston 2 or 4 stroke cycle 2 Single or double acting Single
electro-magnetic coupled S.R. gears (4-units-P & S for'd & aft)

Maximum pressure in cylinders 750 lbs. Diameter of cylinders 20.5" Length of stroke 27.5 No. of cylinders 28 (7 cylinders each eng)
Mean Indicated Pressure 110 lbs. No. of cranks 28

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 23.875 Is there a bearing between each crank Yes
Revolutions per minute 240 S.R. Gear reduced to 85 R.P.M. Flywheel dia. 96" Weight 17.5 tons (est) when magnetically coupled. Yes
Crank ~~XXXXXX~~ Solid forged as per Rule. Crank pin dia. 13.75 Crank Webs Mid length breadth 20" Thickness parallel to axis —
Shaft, ~~XXXXXX~~ as fitted 13.75 as fitted 13.75 Mid length thickness 6.375" Thickness around eyehole —

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted — as fitted 19" as fitted 13.375 (no torque)

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the {tube} shaft fitted with a continuous liner {Yes
as fitted — as fitted 23-1/8" {screw}

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
as fitted 1-1/6" as fitted 1-1/6" as fitted 1-1/6"

Propeller boss Yes 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 No If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 7'-8 1/2"

Propeller, dia. 21'-8" Pitch 21.7 ft. No. of blades 4 Material bronze whether Moveable fixed Total Developed Surface 166.4 sq. feet

Method of reversing Engines Direct & shaft reversal by magnetic couplings Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forced Thickness of cylinder liners 1.25" Are the cylinders fitted with safety valves. Yes Are the exhaust pipes and silencers water cooled or lagged with

non-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. —

Cooling Water Pumps, No. 3 fresh & 3 salt water all 1300 GPM centrifugal Electric driven 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. — Diameter. — Stroke. — Can one be overhauled while the other is at work. —

Pumps connected to the Main Bilge Line {No. and Size. 2 vert. centrifugal 6" dia. each
How driven Electric motors

Is 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 —

Ballast Pumps, No. and size 1-6" vertical Centrifugal Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 3 rotary 750 GPM each

Are two independent means arranged for circulating water through the Oil Cooler. Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 4 - 3" dia.; 2 - 6"; 1 - 10" (Emergency circ. pump) In Pump Room. —

In Holds, &c. 3" dia. port and starboard in each hold and deep tank

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 - 3"; 1 - 10"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes. Yes Are the Bilge Suctions in the Machinery Spaces

ed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes

Are all Sea Connections fitted direct on the skin of the ship. Yes Are they fitted with Valves or Cocks. Valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates. Yes Are the Overboard Discharges above or below the deep water line. below

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 pass through the bunkers. none How are they protected. —

What pipes pass through the deep tanks. none Have they been tested as per Rule. —

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

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. Yes Is the Shaft Tunnel watertight. Yes Is it fitted with a watertight door. Yes worked from above upper deck

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. Two No. of Stages. two Diameters 6.5"; 4" Stroke 5" Driven by Elect. motors

Auxiliary Air Compressors, No. One No. of stages. two Diameters 5"; 4-3/8" Stroke 5" Driven by Elect. motor

Small Auxiliary Air Compressors, No. — No. of stages. — Diameters — Stroke — Driven by —

What provision is made for first Charging the Air Receivers Battery cranked emergency Diesel generator driving compressor motors

Scavenging Air Pumps, No. 4 centrifugal blowers each engine Diameter — Stroke — Driven by gears from crankshaft

Auxiliary Engines crank shafts, diameter as per Rule No. Three Star. for'd inbd; star. for'd outbd & starb'd aft on engine room floor level

as fitted 8" Position starb'd aft on engine room floor level

Have the Auxiliary Engines been constructed under special survey. No Is a report sent herewith. No

AIR RECEIVERS:—Have they been made under survey. No ☒ State No. of Report or Certificate Tested to 1200 lbs. July 1948

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 Yes ☒ Is a drain fitted at the lowest part of each receiver Yes ☒

Injection Air Receivers, No. None ☒ Cubic capacity of each. Internal diameter. thickness.

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

Starting Air Receivers, No. 5 ☒ Total cubic capacity 660 cu. ft. Internal diameter 4 @ 42" Working pressure Actual 4 @ 1.25"

Seamless, lap welded or riveted longitudinal joint welded ☒ Material steel Range of tensile strength 60/72000lbs Working pressure by Rules. Actual 500

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 Yes ☒

PLANS. Are approved plans forwarded herewith for Shafting Yes ☒ Receivers No ☒ Separate Fuel Tanks No ☒

Donkey Boilers No ☒ General Pumping Arrangements Yes ☒ Pumping Arrangements in Machinery Space Yes ☒

Oil Fuel Burning Arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes except spare propeller which has been ordered but not received

State the principal additional spare gear supplied None

The following drawings accompany this report:-

Bilge, Ballast O F storage and O F transfer systems-Albina Eng.&Mach. Wks. Drawing No. A 285

Diagram of Fuel Oil transfer system - " " " " " No. C 966

Arrangement of shafting - " " " " " No. C 976

One line diagram of Electrical Distribution System - " " " " " No. A 166

The foregoing is a correct description

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts—Cylinders 17 June 48 Covers 17 June 48 Pistons 17 June 48 Rods - Connecting rods 17 June 48

Crank shaft 17 June 48 Flywheel shaft - Thrust shaft 17 June 48 Intermediate shafts 17 June 48 Tube shaft -

Screw shaft 18 Jan. 49 Propeller 18 Jan. 49 Stern tube 18 Jan. 49 Engine seatings 17 June 48 Engines holding down bolts 17 June 48

Completion of fitting sea connections - Completion of pumping arrangements - Engines tried under working conditions 28 Jan. 49

Crank shaft, Material forged steel Identification Mark - Flywheel shaft, Material - Identification Mark -

Thrust shaft, Material forged steel Identification Mark - Intermediate shafts, Material forged steel Identification Marks -

Tube shaft, Material - Identification Mark - Screw shaft, Material forged steel Identification Mark -

Identification Marks on Air Receivers All starting air receivers made to the Rules and inspection of the American

Bureau of Shipping. Each receiver has now been examined internally and tested to 1200 lbs. and found

satisfactory.

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 No ☒ 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.)

The machinery of this vessel was not built to Survey but was constructed and installed in the

vessel under the supervision of the Surveyors to the American Bureau of Shipping. The engines, their

magnetic couplings and single reduction gears have been completely opened up and examined throughout

and replaced in good order. The workmanship and materials used are good. The machinery has been

tested under full working conditions and found satisfactory and, in our opinion, be favorably

considered by the Committee for Classification with Lloyd's Register of Shipping and may then be

entitled to records of LMC (C.S.) 1,49; T.S. (C.L.) 1, 49 and D.B.S. 1, 49, subject to a spare

propeller being supplied at the earliest opportunity.

The amount of Entry Fee ... £ -- : -- : When applied for,

Special ... £ : : 19

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned LMC - 1, 49

NEW YORK MAY 18 1949

James F. Robertson E. M. Paulbrough

Engineer Surveyors to Lloyd's Register of Shipping.

Lloyd's Register of Shipping

Foundation