

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 18 APR 1947

Date of writing Report **7th Mar.** 19**47** When handed in at Local Office **21st March** 19**47** Port of **Baltimore, Maryland**
 No. in Survey held at **Baltimore, Maryland** Date, First Survey **January 13th,** Last Survey **February 3rd,** 19**47**
 Reg. Book **72125** on the **S.S. "CHELATROS" (ex "Edward K. Collins")** (Number of Visits **8**) Tons { Gross **7176** Net **4380**
 Built at **Panama City, Florida** By whom built **J. A. Jones Construction Company, Inc.** Yard No. **56** When built **1944**
 Engines made at **Hamilton, Ohio** By whom made **General Machinery Corp.** Engine No. **7940** When made **1944**
 Boilers made at **New York** By whom made **Combustion Eng. Company** Boiler No. **8919** When made **1944**
 Registered Horse Power **2500** Owners **Kassos Steamship Navigation Company, Ltd.** Port belonging to **Syra**
 Nom. Horse Power as per Rule **634.8** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 Trade for which Vessel is intended **General cargo**

ENGINES, &c. Description of Engines **Triple Expansion** Revs. per minute **76**
 Dia. of Cylinders **24", 37", 70"** Length of Stroke **48"** No. of Cylinders **Three** No. of Cranks **Three**
 Crank shaft, dia. of journals as per Rule **14.28"** Crank pin dia. **14.25"** Crank webs Mid. length breadth **28.5"** Thickness parallel to axis **7.125**
 as fitted **14.25"** Mid. length thickness **9"** Thickness around eye-hole **7.125**
 Intermediate Shafts, diameter as per Rule **13.6** Thrust shaft, diameter at collars as per Rule **14.25**
 as fitted **13.5** as fitted **14.25**
 Tube Shafts, diameter as per Rule **15.00** Is the shaft fitted with a continuous liner { **Yes**
 as fitted **15.25"** as fitted **15.25"**
 Bronze Liners, thickness in way of bushes as per Rule **.757** Thickness between bushes as per Rule **.567** Is the after end of the liner made watertight in the
 as fitted **.8125** as fitted **.6875**
 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 **-**
 Propeller, dia **18' 6"** Pitch **16'** No. of Blades **Four** Material **Bronze** whether Moveable **No** Total Developed Surface **117** sq. ft.
 Length of Bearing in Stern Bush next to and supporting propeller **5 feet**
 Bilge Pumps worked from the Main Engines, No. **-** Diameter **-** Stroke **-** Can one be overhauled while the other is at work **-**
 Main Bilge Pumps worked from the Main Engines, No. **Two** Diameter **4.5** Stroke **26"** Can one be overhauled while the other is at work **Yes**
 Feed Pumps { No. and size **Two (12 x 8 x 24) Simplex** Pumps connected to the { No. and size **Two (10 x 11 x 12 Duplex)**
 How driven **Steam** Main Bilge Line How driven **Steam**
 Ballast Pumps, No. and size **One (10 x 11 x 12 Duplex)** 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 Pumps;—In Engine and Boiler Room **2-2 1/2", 2-3", 2-5" in E. R.; 2-5" in B.R.**
 In Pump Room **-** In Holds, &c. **Two 3" No. 1 hold, Two 3" No. 2 hold, Two 3" No. 3 hold,**
Two 3" No. 4 hold, Two 3" No. 5 hold.

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One 10"** Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size **2-5" diameter** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes **Yes (Strainers in bilge wells)**
 Are the Bilge Suctions in the Machinery Space led 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 stokehold 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 **No**
 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 **Thrust recess**

MAIN BOILERS, &c.— (Letter for record **-**) Total Heating Surface of Boilers **9704 sq. ft. + 529 sq. ft. = 10,233**
 Which Boilers are fitted with Forced Draft **P & S** Which Boilers are fitted with Superheaters **P & S**
 No. and Description of Boilers **Two Water Tube** Working Pressure **240 lbs.**

A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**
 A DONKEY BOILER FITTED? **No** If so, is a report now forwarded? **-**
 Is the donkey boiler be used for domestic purposes only **-**

PLANS. Are approved plans forwarded herewith for Shafting **Yes** Main Boilers **Yes** Auxiliary Boilers **-** Donkey Boilers **-**
 (If not state date of approval)
 Superheaters **Yes** General Pumping Arrangements **Yes** Oil fuel Burning Piping Arrangements **Yes**

SPARE GEAR.

Is the spare gear required by the Rules been supplied **Yes**
 Is the principal additional spare gear supplied **Spare Tail Shaft (one)**

The foregoing is a correct description

Manufacturers.



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 January 23rd, 1947 Slides January 23rd, 1947 Covers January 23rd, 1947
 Pistons January 23rd, 1947 Piston Rods January 23rd, 1947 Connecting rods January 23rd, 1947
 Crank shaft January 23rd, 1947 Thrust shaft January 23rd, 1947 Intermediate shafts January 23rd, 1947
 Tube shaft - Screw shaft January 13th, 1947 Propeller January 13th, 1947
 Stern tube January 13th, 1947 Engine and boiler seatings - Engines holding down bolts -

Examination of ~~Completion of~~ sea connections January 13th, 1947
 Completion of pumping arrangements - Boilers ~~examined~~ examined January 20th, 1947 Engines tried under steam January 31st, 1947
 Main boiler safety valves adjusted February 3rd, 1947 Thickness of adjusting washers -

Crank shaft material - Identification Mark - Thrust shaft material - Identification Mark -
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -
 Screw shaft, material - Identification Mark - Steam Pipes, material Steel Test pressure - - Date of Test -

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 the Rules for the use of oil as fuel 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 - If so, state name of vessel "Liberty" EC2-S-C1

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built and installed under the supervision of the American Bureau of Shipping, and, as far as now seen, appears to be of good and sound construction and carefully installed. On completion of Survey, the two main boilers, the main and auxiliary machinery and the electrical installation have been examined under working conditions and found satisfactory. Feed water regulators in accordance with Section 34, Clause 6, Page 121 of the Rules, have now been fitted.

It is the opinion of the undersigned that the machinery of this vessel is suitable to be classed with this Society with records of LMC 2-47 and TS (CL) seen 1-47.

The shaft tunnel of this vessel is fitted with a quick closing watertight door operated from the thrust receiver. It has been pointed out to the Owners that to comply with the Rules, this door must be operable from the freeboard deck and arrangements have been made to fit a sliding W. T. door operated from the freeboard deck at the earliest opportunity.

See hull report

The amount of Entry Fee ... \$ 250.00 : When applied for, 21st Mar. 47

The amount of Entry Fee ... \$ 250.00 : When applied for, 21st Mar. 47
 Special ... \$ - :
 Donkey Boiler Fee ... \$ - :
 Travelling Expenses (if any) \$ 12.50 :
 Late 10.00 :
 When received, - 19

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK MAR 26 1947 *g.f.g.*
 Assigned LMC-2, 47

NOTE- 2 WTB-240