

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

OCT 28 1937

Date of writing Report 26-10-1937 When handed in at Local Office 27-10-1937 Port of West Hartlepool
 No. in Survey held at West Hartlepool Date, First Survey 11th March, 1937 Last Survey 20th October, 1937
 Reg. Book. "G. S. Livanos" (Number of Visits 69)
 on the "G. S. Livanos"
 Built at West Hartlepool By whom built Wm Gray & Co Ltd. Yard No. 1078 Tons Gross 4835
Net 2867
 Engines made at West Hartlepool By whom made Central Marine Engine Works Engine No. 1078 When built 1937
 Boilers made at West Hartlepool By whom made Central Marine Engine Works Boiler No. 1078 When made 1937
 Registered Horse Power 466 Owners G. S. Livanos Maritime Co Ltd. Port belonging to Ghios
 Nom. Horse Power as per Rule 466 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Ocean going

ENGINES, &c.—Description of Engines Triple Expansion, Inverted, Direct Acting, Surface Condensing Revs. per minute 60
 Dia. of Cylinders 22 1/2" 39" 65" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.34 as fitted 13.5" Crank pin dia. 13.5" Crank webs Mid. length breadth 19.5" Thickness parallel to axis 8.375"
 as fitted 13.5" Mid. length thickness 8.375" Thickness around eye-hole 6"
 Intermediate Shafts, diameter as per Rule 12.7" as fitted 12.75" Thrust shaft, diameter at collars as per Rule 13.34" as fitted 13.5"
 Tube Shafts, diameter as per Rule 14.25" as fitted 14.5" Is the tube shaft fitted with a continuous liner yes
 Screw Shaft, diameter as per Rule 7.34 as fitted 7.5" Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 55 as fitted 6.25 Is the after end of the liner made watertight in the 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 yes
 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 yes
 If 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 shaft no
 If so, state type 5' 0" Length of Bearing in Stern Bush next to and supporting propeller 5' 0"
 Propeller, dia. 18' 6" Pitch 16' 6" No. of Blades 4 Material Brass whether Moveable no Total Developed Surface 112.8 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 28" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 28" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size One 3" x 6" x 21" Single One 7" x 5" x 6" Duplex Pumps connected to the { No. and size One 9 1/2" x 10 1/2" x 10" Duplex Two 4" x 28"
 How driven Steam independent Main Bilge Line How driven Independent steam Main engines.
 Ballast Pumps, No. and size One 9" x 10 1/2" x 10" 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 One 5" Direct Two 3" Eng Room Two 3" Boiler Room Two 3" Dry Tank
 In Pump Room — In Holds, &c. No. 1. Two 3" No. 2. Two 3 1/2" No. 3. Two 2 1/2" Tunnel. One 2" Tunnel Well. One 2 1/2" No. 4. Two 3" No. 5. Two 3"
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One 8" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 5"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 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 Both
 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 Above
 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 — Have they been tested as per Rule yes
 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 Shelter deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7115 sq. ft.
 Is Forced Draft fitted yes No. and Description of Boilers Two Main & One Auxiliary Single ended Working Pressure 225 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no 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 18-5-37 Main Boilers 13-1-37 Auxiliary Boilers 13-1-37 Donkey Boilers ✓
 (If not state date of approval)
 Superheaters 13-1-37 General Pumping Arrangements ✓ Oil fuel Burning Piping Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied One screw shaft

The foregoing is a correct description.
 FOR THE CENTRAL MARINE ENGINE WORKS,
 (W. Gray & Co. Ltd.)

J. H. Seamy
 GENERAL MANAGER.

Manufacturer.



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Lloyd's Register
Foundation

W1132-0311

1937 Mar. 11 April. 1.7.21.27 May. 14.19.31 June. 8.11.14.17.28.29.30 July 2.5.9.12.14.16.19.20.22.23
During progress of work in shops - - 28.30 Aug. 10.11.13.17.18.20.23.25.26.30.31 Sept 1.2.6.9.13.14.20.22.23.28.29.30 Oct. 1.5.6.7.11.12.14
Dates of Survey while building During erection on board vessel - - - 1937 Aug. 24.27. Sept 3.7.10.17.24 Oct. 1.4.12.15.20.
Total No. of visits Sixty-nine (69)

Dates of Examination of principal parts—Cylinders 14.6.37 16.7.37 10.8.37 Slides 10.8.37 Covers 10.8.37
Pistons 17.8.37 13.9.37 Piston Rods 17.8.37 6.9.37 Connecting rods 27.4.37 17.8.37 6.9.37
Crank shaft 9.7.37 12.7.37 16.7.37 28.8.37 Thrust shaft 28.6.37 5.7.37 25.8.37 Intermediate shafts 7.9.37
Tube shaft ✓ Screw shaft 2.7.37 23.7.37 7.9.37 Propeller 7.9.37
Stern tube 17.8.37 Engine and boiler seatings 24.9.37 Engines holding down bolts 1.10.37 4.10.37
Completion of fitting sea connections 24.8.37
Completion of pumping arrangements 15.10.37 Boilers fixed 1.10.37 Engines tried under steam 15.10.37
Main boiler safety valves adjusted 15.10.37 Thickness of adjusting washers P 2 3/4" S 1 1/2" C 1 3/2" S 5/16" S 1 1/2" S 5/16"
Crank shaft material Steel Identification Mark 9623 AEG. Thrust shaft material Steel Identification Mark 9628 AEG.
Intermediate shafts, material Steel Identification Marks (791) 9628 AEG. Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material Steel Identification Mark (291) 9628 AEG. Steam Pipes, material Steel Test pressure 675 lbs. Date of Test 23.8.37 5.10.37
Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F. ✓
Have the requirements of the Rules for the use of oil as fuel been complied with ✓
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 Engines & Boilers for this vessel have been constructed under Special Survey and in accordance with the approved plans. Upon completion and after installation they were examined under full working conditions and found satisfactory. The materials and workmanship have been found good.

It is Recommended that this vessel has record in the Register Book
+ LMC 10.37 2 S.B (spt) F. D. 1 aux S.B. C.L.

The amount of Entry Fee ... £ 5 : 0 :
Special ... £ 94 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 19
When received, 11.11.37

J. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.

TUE 2 NOV 1937

Committee's Minute

Assigned + done 10.37

2 S.B. Inc F.D.
1 aux S.B.



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