

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 42 When handed in at Local Office 4/1 19 42 Port of Hull
 No. in Survey held at Thorne Date, First Survey 22. 10. 42. Last Survey 28. 12. 1942.
 Reg. Book "EMPIRE SERAPH" (Number of Visits 7) Tons {Gross 129
on the Single Screw Jug "EMPIRE SERAPH" Net 112
 Built at Thorne By whom built Richard Dunston L^a Yard No. T 374 When built 1942
 Engines made at Yarmouth By whom made Crabtree (1931) L^a Engine No. 633 When made .
 Boilers made at Stockton By whom made Stockton Chem Eng. Works, Stockton Boiler No. 6586 When made .
 Registered Horse Power 85 Owners Ministry of War Transport Port belonging to Goole
 Nom. Horse Power as per Rule 85 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended Towing Service

ENGINES, &c.—Description of Engines See Spanish Rpt N° 110,770. Triple Expansion Revs. per minute 150
 Dia. of Cylinders 11 3/4, 19 1/4, 32" Length of Stroke 22 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 6 3/8 Crank pin dia. 6 3/8 Crank webs shrunk Thickness parallel to axis 4 1/4"
as fitted 6 3/8 Mid. length breadth shrunk Thickness around eye-hole 2 1/2"
 Intermediate Shafts, diameter as per Rule 6 1/4 Thrust shaft, diameter at collars as per Rule 6 3/8
as fitted 6 1/4 as fitted 6 3/8
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 7 1/8 Is the {tube / screw} shaft fitted with a continuous liner no
as fitted as fitted 7 1/8
 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 as fitted 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 SCREEN
 shaft YES If so, state type NEWARK Length of Bearing in Stern Bush next to and supporting propeller 29"
 Propeller, dia. 8'-0" Pitch 8'-4" No. of Blades 4 Material C.I. whether Moveable no Total Developed Surface 28 sq. feet
 Feed Pumps worked from the Main Engines, No. One Diameter 2 1/2" Stroke 11" Can one be overhauled while the other is at work ✓
 Bilge Pumps worked from the Main Engines, No. One Diameter 2 1/2" Stroke 11" Can one be overhauled while the other is at work ✓
 Feed {No. and size One 6 1/2" x 4 1/2" x 10" Pumps connected to the {No. and size One 5" x 3 1/2" x 6" (Direct)
 Pumps How driven Ind. Steam Main Bilge Line How driven Ind. Steam
 Ballast Pumps, No. and size none Lubricating Oil Pumps, including Spare Pump, No. and size none
 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 each 2" dia - also direct suction - see below
 In Pump Room One each 2" dia In Holds, &c. One each 2" dia in fore & aft compartments
Peak fitted with drain valves controlled from upper deck
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" dia Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size E. & B. opacs - one each 2 1/2" 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 or on robust steel boxes 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 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 Access from above worked from

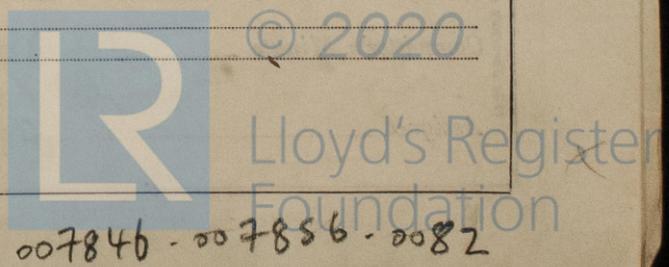
MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1367 sq
 Which Boilers are fitted with Forced Draft The only boiler Which Boilers are fitted with Superheaters none
 No. and Description of Boilers 155 Working Pressure 200 lb.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ✓
 Can the donkey boiler be used for domestic purposes only ✓
 PLANS. Are approved plans forwarded herewith for Shafting 29-11-39 Main Boilers 16-7-41 Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 Superheaters ✓ General Pumping Arrangements 17. 3. 41 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 See attached list

The foregoing is a correct description.

Manufacturer.



007846 - 007856 - 0082

"E. SERAPH"

During progress of work in shops - - -

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

1942. Oct 22, Nov 5, 27, Dec 9, 14, 21, 22, 24, 28.

9.

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____

Pistons _____ Piston Rods _____ Connecting rods _____

Crank shaft _____ Thrust shaft _____ Intermediate shafts _____

Tube shaft _____ Screw shaft _____ Propeller _____

Stern tube _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of fitting sea connections _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ 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 _____ Test pressure _____ Date of Test _____

Is an installation fitted for burning oil fuel _____ 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 _____ 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 _____

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

The machinery noted above has been installed on board EMPIRE SERAPH in accordance with the Rules, approved plans, and to the Specification. The workmanship and materials are good and when tested as prescribed in the Rules Specification the machinery was found satisfactory in every respect.

Eligible to have record of LMC 12.42. O.G. and notation of T. 3cy. 11 3/4" 19 1/4" 32" - 22" N.H.P. 85.

1 SB. 200 lb. 2 c.f. F.D.

G.S. 36.5 φ. H.S. 1367 φ

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

Special .. (PART) ... £ 5 : 11/9/42 10/1/1943

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

Travelling Expenses (if any) £ : : 19.

W.S. Shields
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... FRI. 19 FEB 1943

Assigned ... T. Lamb 12.42

... 22, 09,

NOTE.—The words which do not apply should be deleted. If not, state whether, and when, one will be sent.