Rpt. 4.

No. 51888.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 4 FEB 1943

Date of writing Report ..... 19 .... When handed in at Local Office 4 FEB 1943 19 .... Port of Hull

No. in Reg. Book ..... Survey held at Hessle & Hull Date, First Survey 2. 10. 42. Last Survey 14. 1. 1943. (Number of Visits 13.)

on the Single Screw Tug "EMPIRE OBERON" Tons { Gross 242 / Net Nil

Built at Hessle By whom built Henry Scarr Ltd. Yard No S. 424 When built 1943

Engines made at Bury By whom made Walmsley's (Bury) Ltd. Engine No. 5959/2 When made "

Boilers made at Hull By whom made Charles D. Holmes Ltd. Boiler No. 1604 When made "

Registered Horse Power ..... Owners Ministry of War Transport Port belonging to .....

Nom. Horse Power as per Rule ~~177~~ 185 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Towing Services

ENGINES, &c.—Description of Engines Triple Exp. Stm. Recip. - Sc Manchester Rpt. No. 11268. Revs. per minute 114

Dia. of Cylinders 16½", 27", 46" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals { as per Rule ..... / as fitted 9.25" } Crank pin dia. 9.375 Crank webs Mid. length breadth 17.5" Mid. length thickness 6" Thickness parallel to axis 6" shrunk Thickness around eye-hole 4"

Intermediate Shafts, diameter { as per Rule ..... / as fitted ..... } **Thrust shaft,** diameter at collars { as per Rule ..... / as fitted ..... }

Tube Shafts, diameter { as per Rule / as fitted / } **Screw Shaft,** diameter { as per Rule 9.7" / as fitted 9⅞" } Is the { tube / screw } shaft fitted with a continuous liner { ✓ / No }

Bronze Liners, thickness in way of bushes { as per Rule ..... / as fitted / } Thickness between bushes { as per Rule ..... / as fitted / } Is the after end of the liner made watertight in the 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 tube shaft YES If so, state type NEWARK Length of Bearing in **Stern Bush** next to and supporting propeller 42"

Propeller, dia. 11'-0" Pitch 11'-8" No. of Blades 4 Material C.I. whether Moveable Solid Total Developed Surface 46 sq. feet

Feed Pumps worked from the **Main Engines,** No. 2 Diameter 3" Stroke 15" Can one be overhauled while the other is at work YES

Bilge Pumps worked from the **Main Engines,** No. 2 Diameter 3" Stroke 15" Can one be overhauled while the other is at work YES

Feed Pumps { No. and size One 7"×7"×8" duplex / How driven Independent steam } **Pumps connected to the Main Bilge Line** { No. and size 2-3"×15" / How driven ME. } One 7"×7"×8" duplex Independent Steam

Ballast Pumps, No. and size One 7"×7"×8" duplex **Lubricating Oil Pumps,** including Spare Pump, No. and size None

Are two independent means arranged for circulating water through the **Oil Cooler** None **Suctions,** connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 2 at 2" & 2 at 2¼"

In Pump Room ✓ In Holds, &c. One 2" in each of the following - Forepeak, forward bilge & after peak.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 5½" **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size One 2¼" & One 2¼" BR. 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 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 PART OF ENGINE ROOM Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2778 ☐'

Which Boilers are fitted with Forced Draft ONLY ONE Which Boilers are fitted with Superheaters NONE.

No. and Description of Boilers ONE SINGLE ENDED MULTITUBULAR Working Pressure 210 ℔

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 3.1.41 Main Boilers 8.8.40 Auxiliary Boilers ✓ Donkey Boilers ✓

(If not state date of approval)

Superheaters ✓ General Pumping Arrangements 1-11-40 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.

"EMPIRE OBERON"

Dates of Survey while building

During progress of work in shops — See Manchester Report No 11268.

During erection on board vessel — 1942 Oct 2, 5, 31; Nov 9, 21, Dec. 3, 23. 1943 Jan 8, 11, 12, 13, 14.

Total No. of visits 13.

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

Pistons See Manchester Rpt. No. 11268. — Piston Rods — Connecting rods

Crank shaft — Thrust shaft 3/12/42. — Intermediate shafts 13/12/42

Tube shaft ✓ — Screw shaft 31/10/42. 9/11/42 — Propeller 31/10/42. 9/11/42

Stern tube 31/10/42. — Engine and boiler seatings 9/11/42. — Engines holding down bolts 3/12/42.

Completion of fitting sea connections 31/10/42.

Completion of pumping arrangements 9/12/42 — Boilers fixed 3/12/42. — Engines tried under steam 9/12/42 12/1/43

Main boiler safety valves adjusted 9/12/42 — Thickness of adjusting washers Both 4/32

Crank shaft material F.I. Steel — Identification Mark JFC 10.2.42 B 6682 — Thrust shaft material F.I. Steel — Identification Mark E No. 8951, AEG 26/11/42.

Intermediate shafts, material F.I. Steel — Identification Marks AWJ, 11/4/42 B No. 684, LT, JH, 17/3/42 — Tube shaft, material ✓ — Identification Mark ✓

Screw shaft, material F.I. Steel — Identification Mark 11/4/42 AWJ B No. 448 L.T. — Steam Pipes, material Steel — Test pressure 630 lb — Date of Test 1/12/42.

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 Yes. — If so, state name of vessel "EMPIRE TITAN" (except as many as)

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

The machinery noted above has been installed on board "EMPIRE OBERON" in accordance with the Rules, approved plans & 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 1.43. O.G. and notation of T. 3 cy. 16½", 27", 46" — 30". NHP 177. ISB. 210 lb. 3 cf. F.D. G.S. 64 ϕ H.S. 2778 ϕ

Certificate to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ 30 : 3 6 — When applied for, 4 FEB 1943 19

Special (REMAINDER) £ ~~27 : 13/6~~ :

Donkey Boiler Fee ... ... £ : : — When received, 19

Travelling Expenses (if any) £ : :

W. S. Shields.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute + Lmc 1.43

Assigned

If not, state whether, and when, one will be sent.

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.