

Rpt. 4.

No. 102431

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 1944 When handed in at Local Office 14. 10. 1944 Port of NEWCASTLE-ON-TYNE 30 OCT 1944  
No. in Survey held at Newcastle on Tyne Date, First Survey 21. 6. 44. Last Survey 9. 10. 1944  
Reg. Book (Number of Visits 14.)  
on the S.S. Empire Susan Tons { Gross 592  
Net 66  
Built at Newcastle By whom built Clelands (Successors) Ltd. Yard No. 71. When built 1944-  
Engines made at Troon By whom made Dilsa S.B. Co. Ltd. Engine No. 193. When made 1943  
Boilers made at West Hartlepool By whom made Central Marine Eng. Works. Boiler No R. 370. When made 1944  
Registered Horse Power Owners Ministry of War Transport Port belonging to  
Nom. Horse Power as per Rule 192 191 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Trade for which vessel is intended Open Sea Towing.

## ENGINES, &amp;c.—Description of Engines Triple Exp. Recip.

Revs. per minute

Dia. of Cylinders 16" x 26" x 43" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3  
Crank shaft, dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis  
as fitted Mid. length thickness shrunk Thickness around eye-hole  
Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule  
as fitted as fitted

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner {  
as fitted as fitted 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 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 tube

at If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet

Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Feed Pumps { No. and size Pumps connected to the Main Bilge Line { No. and size  
How driven How driven

Ballast Pumps, No. and size 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 In Holds, &c.

In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

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

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

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

Are they each fitted with a Discharge Valve always accessible in the plating of the vessel. Are the Blow Off Cocks fitted with a spigot and brass covering plate

What Pipes pass through the bunkers. How are they protected

What pipes pass through the deep tanks. 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.

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 Is the Shaft Tunnel watertight. Is it fitted with a watertight door worked from

## MAIN BOILERS, &amp;c.—(Letter for record S.) Total Heating Surface of Boilers 3090 sq. ft.

Which Boilers are fitted with Forced Draft The main Boilers Which Boilers are fitted with Superheaters NIL

No. and Description of Boilers 1. S.B. Working Pressure 215 lb./sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes — N. 21st. Rpt. No 18539.

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 Main Boilers Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters 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 As per Min. of War Transport Specification

The foregoing is a correct description.

Manufacturer.

002330-002339-0085

See Over 2020

Lloyd's Register Foundation

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*J. N. Walker.*  
Engineer Surveyor to Lloyd's Register of Shipping.