

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19... 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 Tron By whom made Duba 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, &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 _____ as fitted _____ Crank pin dia. _____ Crank webs _____ Thickness parallel to axis _____ shrunk _____ Thickness around eye-hole _____

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 _____ as fitted _____ Is the tube screw shaft fitted with a continuous liner { _____

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 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 Pump Room _____ In Holds, &c. _____

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, &c.—(Letter for record S.) Total Heating Surface of Boilers 3090 sq. ft.

Which Boilers are fitted with Forced Draft The main Bo. 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. Spl. 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 _____

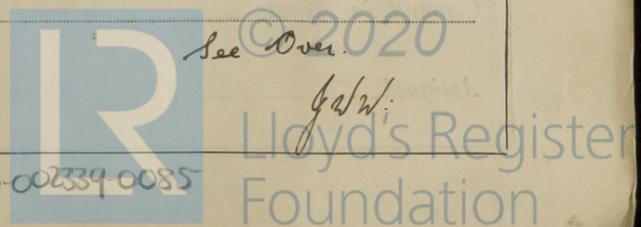
SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied As per Min. of War Transport Specifications.

The foregoing is a correct description.

Manufacturer.



002330-002334-0085

During progress of work in shops - - -
 Dates of Survey while building
 During erection on board vessel - - - (1944) June 21, July 6, 10, 11, 12, 17 Sept. 11, 13, 14, 18, 28 Oct 5, 6, 9
 Total No. of visits 14

Dates of Examination of principal parts—Cylinders See Glasgow Rpt no 67575. Covers
 Pistons Piston Rods & Sunderland Rpt no 34023: 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 9.10.44 Boilers fixed ✓ Engines tried under steam 28/9/44 & 9/10/44
 Main boiler safety valves adjusted 28/9/44 Thickness of adjusting washers 7/16" aft 3/8"
 Crank shaft material Identification Mark Thrust shaft material Identification Mark
 Intermediate shafts, material Identification Marks Tube shaft material See Sunderland Rpt 34023 Mark
 Screw shaft, material Identification Mark Steam Pipes, material Steel Test pressure 670 lb/sq in Date of Test 30/7/44
 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. Not Desired
 Is this machinery duplicate of a previous case. Yes If so, state name of vessel. S.S. Empire Julia

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The Machinery of this vessel, installing of which, was outstanding from Sunderland Rpt no 34023 has now been completed satisfactorily in accordance with the approved plans & tested as required by the rules.

The Safety Valves of the main boiler were adjusted under steam to 215 lb/sq. Steam & fire extinguishing arrangements tested.
 Oil burning installation pipes tested to 450 lb/sq.
 Oil fuel Suction lines tested to 50 " /"
 Oil fuel tank heating coils tested to 250 lb/sq.
 all Bilge pumping arrangements tested.

The Machinery was tried under working conditions & found satisfactory & is eligible in my opinion for notation + LMC 10.44.
 T.S. O.G. 1.S.B. 215 lb/sq. F.P. fitted for oil fuel F.P. above 150° F.

Total fee F.E.	£ 3.0.0	
" Specimen + Specif	60.0.0	63.0.0
has already charged		
Spl Report 15539	20.12.0	
Gls Report 67575	18.14.0	
Sld Report 34023	14.18.9	54.49
		8.15.3

The amount of Entry Fee ... £ : : When applied for,
 Balance of fee as above ... £ 8 15 3 27 OCT 1944
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 19

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

Committee's Minute ... 3 NOV 1944

Assigned ... +LMC 10.44
 70.09

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