

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

1 JUL 1946

Date of writing Report \_\_\_\_\_ 19 \_\_\_\_\_ When handed in at Local Office \_\_\_\_\_ 19 \_\_\_\_\_ Port of Hull

No. in Survey held at Gainsborough Hull Date, First Survey 29.10.41 Last Survey 4<sup>th</sup> June 1946  
 Reg. Book 22 " EMPIRE LUCY " A/MS 1141 Number of Visits 18 Tons { Gross 244  
 on the EMPIRE LUCY " A/MS 1141 " Net NIL

Built at Gainsborough By whom built J.S. Watson (Gainsborough) Ltd. Yard No. 1556 When built 1946  
 Engines made at Berby By whom made G. Hitches & Co. Engine No. 1657 When made 4  
 Boilers made at Hull By whom made Chas. D. Holmes Ltd. Boiler No. 1709 When made .  
 Registered Horse Power \_\_\_\_\_ Owners Ministry of War Transport Port belonging to Hull  
 Nom. Horse Power as per Rule 177 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES  
 Trade for which vessel is intended Tramway Service

ENGINES, &c.—Description of Engines Imperial Triple Expansion - see Note Rpt N° 97 Revs. per minute 116  
 Dia. of Cylinders 16", 26", 43" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule Crank pin dia. 9 1/8" Crank webs Mid. length breadth 13 3/4" Thickness parallel to axis 5 3/4"  
as fitted 9 1/8" Mid. length thickness 5 3/4" Thickness around eye-hole 4 1/16"  
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule  
as fitted 8 5/8" as fitted 9 1/8"  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube } shaft fitted with a continuous liner { NO }  
as fitted 9 1/8" as fitted 9 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 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 CI whether Moveable NO Total Developed Surface 46 sq. feet  
 Feed Pumps worked from the Main Engines, No. Two Diameter 3" Stroke 18" Can one be overhauled while the other is at work YES  
 Bilge Pumps worked from the Main Engines, No. Two Diameter 3" Stroke 18" Can one be overhauled while the other is at work YES  
 Feed Pumps { No. and size 2-3" x 18" Pumps connected to the { No. and size 2-3" x 18" 7x7x8" }  
 { How driven ME INDSTM. } Main Bilge Line { How driven ME INDSTM. }

Ballast Pumps, No. and size ONE 7" x 7" x 8" AS ABOVE Lubricating Oil Pumps, including Spare Pump, No. and size NONE  
 Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected both to Main Bilge Pumps and Auxiliary  
 Bilge Pumps:—In Engine and Boiler Room 2 - 2" (2 - 2 1/4")  
 In Pump Room ✓ In Holds, &c. ONE 2" IN EACH OF THE FOLLOWING - FPT, STORE, APT.

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE 5 1/2" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,  
 No. and size ER ONE 2 1/4" BR ONE 2 1/4" Are all the Bilge Suction Pipes in holds and tanks 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 ER. Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S Total Heating Surface of Boilers 2778 FT.²  
 Which Boilers are fitted with Forced Draft SINGLE BOILER Which Boilers are fitted with Superheaters NONE  
 No. and Description of Boilers ONE SINGLE END CYLINDRICAL MULTITUBULAR Working Pressure 210 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 other than domestic purposes ✓  
 PLANS. Are approved plans forwarded herewith for Shafting 5.9.41 Main Boilers 8.8.40 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 Specification.

The foregoing is a correct description.

Manufacturer.



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013339-013345-0195

# EMPIRE LUCY

**Su Nottingham Report No 97.**

During progress of work in shops - - - *24.07.1946*

Dates of Survey while building

During erection on board vessel - - - *1946 Oct. 29, Feb 26, Mar. 20, 21, 22, 23, 24, 13, 16, 23, May 9, 16, 20, 23, 25, 28, 31, June 1, 3, 4.*

Total No. of visits during erection - *18*

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

Pistons *Su* Piston Rods *Nottingham Rpt. No 97* Connecting rods *97.*

Crank shaft  Thrust shaft *13.1.45* Intermediate shafts *4.1.45*

Tube shaft  Screw shaft *20.3.46* Propeller *3.4.46*

Stern tube *26.2.46* Engine and boiler seatings *13.4.46* Engines holding down bolts *23.4.46*

Completion of fitting sea connections *26.2.46*

Completion of pumping arrangements *23.5.46* Boilers fixed *13.4.46* Engines tried under steam *20/5/46 23/5/46*

Main boiler safety valves adjusted *20.5.46* Thickness of adjusting washers *F 3/8 A 11/32*

Crank shaft material *Su Nott. Report* Identification Mark *No 97* Thrust shaft material *F. I. STL* Identification Mark *B 4220, CP, 12.12.44*

Intermediate shafts, material *F. I. STL* Identification Marks *12.12.44* Tube shaft, material *J* Identification Mark *J*

Screw shaft, material *D* Identification Mark *11.12.44* Steam Pipes, material *STEEL* Test pressure *630 lbs* Date of Test *4.5.46*

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 ALFRED*

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

*The above machinery installed in accordance with the Secretary's letter, the approved plans & the Society's Rules and to the Specifications. The workmanship and materials are good. The machinery is eligible in my opinion to be recorded in the Register Book 1/2 LMC 5,46. O.G. T. 3cy. 16", 26", 43" - 30' MN 177. 1SB 210 lb 3cf. 2778 ft<sup>2</sup> HS. F.D. Fitted for burning oil fuel 5,46. F.P. about 150° F.*

<i>7/100</i>	FE	<i>3-0-0</i>	<i>Already charged by Nott.</i>	<i>19-2-0</i>
	+ LMC	<i>44-5-0</i>		
	25% SPEC	<i>11-1-0</i>	<i>Now charged</i>	FE <i>3-0-0</i>
			<i>Remainder of fee</i>	+ LMC <i>36-4-0</i>

The amount of Entry Fee ... £ <i>3 : 0</i> : _____	} When applied for,	
Special ... .. £ <i>36 : 4</i> : _____		19
Donkey Boiler Fee ... .. £ : : _____	} When received,	
Travelling Expenses (if any) £ : : _____		10

Date **FRI. 2 AUG 1946**

Committee's Minute *+ LMC 6.46*  
*F.D. O.G.*

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

Certificate to be sent to

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