

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 14.4.44 1944 When handed in at Local Office 19 APR 1944 Port of LIVERPOOL  
 No. in Survey held at Northwich Date, First Survey Feb'y 2<sup>nd</sup> /43 Last Survey April 12<sup>th</sup> 1944  
 Reg. Book Northwich (Number of Visits 35) Tons {Gross 351 Net 142  
 on the S.S. "C. 625"  
 Built at Northwich By whom built W. J. Yarwood & Sons Ltd Yard No. 726 When built 1944  
 Engines made at Northwich By whom made W. J. Yarwood & Sons Ltd Engine No. 213 When made 1944  
 Boilers made at Birkenhead By whom made Cammell Laird & Co Boiler No. 2305 When made 1944  
 Registered Horse Power 59 Owners Admiralty (Dept. of Stores) Port belonging to   
 Nom. Horse Power as per Rule 59 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 385 I.H.P at 180  
 Dia. of Cylinders 10 1/2. 17 1/2. 29" Length of Stroke 19" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals 5 3/4" Crank pin dia. 5 3/4" Crank webs shrunk Thickness parallel to axis 3 1/2"  
 as per Rule Approved as fitted 5 3/4" Mid. length breadth shrunk Thickness around eye-hole 2 9/16"  
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule 5 3/4"  
 as fitted as fitted Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 6 1/4" Is the screw shaft fitted with a continuous liner No  
 as fitted as fitted Is the after end of the liner made watertight in the propeller boss Yes  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes  
 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 Yes  
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes  
 at Yes If so, state type Yarwoods Length of Bearing in Stern Bush next to and supporting propeller 2 1/2"  
 Propeller, dia. 7 1/2" Pitch 6 1/2" No. of Blades 4 Material CI whether Moveable Yes Total Developed Surface 18 sq. feet

Feed Pumps worked from the Main Engines, No. 1 Diameter 2" Stroke 9 1/2" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 2" Stroke 9 1/2" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 1-2x9 1/2. 1-6x4x12 Pumps connected to the Main Bilge Line { No. and size 1-2x9 1/2. 1-5x5 1/2x6 (G.S). 1-6x4x12 (Feal)  
 How driven M. Eng. Steam How driven M. Eng. Steam Steam (with lockable valve)  
 Ballast Pumps, No. and size 1-5x5 1/2x6 (G.S) Lubricating Oil Pumps, including Spare Pump, No. and size Yes  
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps:—In Engine and Boiler Room 2-2" In Holds, &c. 2-2" (Fuel Hold). 2-2" (aft hold)  
 In Pump Room Yes

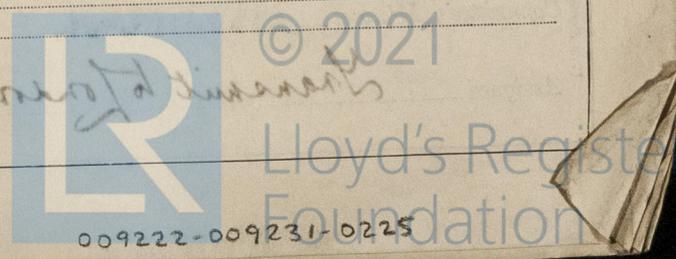
Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2"  
 Are all the Bilge Suction Pipes in holds and tunnel act fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery Space led 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 On Knigotons 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 Yes  
 What pipes pass through the deep tanks Yes Have they been tested as per Rule Yes  
 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 Yes worked from Yes

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1105 sq ft  
 Which Boilers are fitted with Forced Draft No Which Boilers are fitted with Superheaters Yes  
 No. and Description of Boilers 1-SB Working Pressure 200 lb/sq in  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Liv. Rpt No 120742  
 IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes  
 Can the donkey boiler be used for domestic purposes only Yes Main Boilers app<sup>d</sup> Auxiliary Boilers Yes Donkey Boilers Yes  
 PLANS. Are approved plans forwarded herewith for Shafting Yes Oil fuel Burning Piping Arrangements Yes  
 (If not state date of approval) Superheaters Yes General Pumping Arrangements Yes

SPARE GEAR.  
 Has the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied Yes

The foregoing is a correct description.

W. J. YARWOOD & SONS (1938) LTD. Manufacturer.  
W. J. Yarwood Managing Director



1943  
 Feb 2, Aug 10, Sept 14, 21, 28, Oct 6, 12, 18, 26, Nov 2, 9, 15, 23, 29, Dec 8, 15, 22, 29  
 1944  
 Jan 5, 11, 18, 27, Feb 1, 7, 15, 22

Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits 35

Dates of Examination of principal parts - Cylinders 23.11.43 Slides 29.11.43 Covers 23.11.43  
 Pistons 29.11.43 Piston Rods 29.12.43 Connecting rods 29.12.43  
 Crank shaft 9.11.43 Thrust shaft 29.12.43 Intermediate shafts  
 Tube shaft ✓ Screw shaft 22.12.43 Propeller 22.12.43  
 Stern tube 15.12.43 Engine and boiler seatings 22.12.43 Engines holding down bolts 22.2.44  
 Completion of fitting sea connections 5.1.44  
 Completion of pumping arrangements 28.3.44 Boilers fixed 7.2.44 Engines tried under steam 5.4.44  
 Main boiler safety valves adjusted 5.4.44 Thickness of adjusting washers PORT 3/8" STAB 3/8"  
 Crank shaft material S.M. Ingot Steel Identification Mark 7719 JFC 28.1.43 Thrust shaft material S.M. Steel Identification Mark 7521 JFC 13.11.42  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material S.M. Steel Identification Mark 7520 JFC 13.11.42 Steam Pipes, material Copper Test pressure at Glasgow Date of Test 1.3.44 A.J.B.  
 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 ✓ 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 "C.614" (Yard No: 713).

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 The Machinery of this vessel has been built under special survey and in accordance with the approved plans.  
 The engines and boiler have been installed, and a full power basin trial carried out at Northwich with satisfactory results.  
 The material and workmanship is of good quality.  
 The boiler examined under steam, its safety valves adjusted, and a satisfactory accumulation test held.  
 In my opinion the machinery of this vessel is eligible to be classed in the Register Book with a notation of  
 LMC 4.44  
 TS. 09. -

Certificate to be sent to  
 (The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Entry Fee	£ 2 : 0 :	When applied for,
Bal. Special	£ 7 : 12 :	26 APR 1944
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ 4 : 0/2	19

*C. Reed*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL - 2 MAY 1944 FRI. 12 MAY 1944  
 Assigned Transmit to London. *arr* + LMC 4.44

