

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 2-7-1943 When handed in at Local Office 4-7-1943 Port of GLASGOW
No. in Survey held at Paisley Date, First Survey 12-3-42 Last Survey 7-7-1943
Reg. Book "EMPIRE LEWIS" (Number of Visits 29)
on the Steel Single Screw Tons { Gross
Built at Thorne By whom built Messrs R. Dunston Ltd Yard No. 383 Net
Engines made at Paisley By whom made Messrs M. & C. Barlow Engine No. 1339 When made 1943
Boilers made at Paisley By whom made Messrs M. & C. Barlow Boiler No. 1339 When made 1943
Registered Horse Power 85 Owners Thorne Port belonging to Thorne
Nom. Horse Power as per Rule 85 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No
Trade for which vessel is intended Towing

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute
Dia. of Cylinders 12-20-32 Length of Stroke 22 No. of Cylinders 3 No. of Cranks 3
Crank shaft, dia. of journals 6-44 Crank pin dia. 6-1/2 Mid. length breadth 9-1/2 Thickness parallel to axis 4-1/8
as fitted 6-1/2 Crank webs 4-1/8 shrunk Thickness around eye-hole 2-3/16 2-7/8
Intermediate Shafts, diameter 6-13 Thrust shaft, diameter at collars 6-44 as per Rule 6-44
as fitted 6-1/4 as fitted 6-1/2
Tube Shafts, diameter 4-12 Screw Shaft, diameter 4-1/8 Is the { screw } shaft fitted with a continuous liner { no liner }
as fitted 4-1/8 as fitted 4-1/8
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
propeller boss as fitted 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
at Yes If so, state type Oil Gland Length of Bearing in Stern Bush next to and supporting propeller 2-5
Propeller, dia. 8-3 Pitch 10-0 No. of Blades 4 Material Cast Iron whether Moveable No Total Developed Surface 24 sq. feet
Feed Pumps worked from the Main Engines, No. 1 Diameter 2-1/2 Stroke 12 Can one be overhauled while the other is at work Yes
Bilge Pumps worked from the Main Engines, No. 1 Diameter 2-1/2 Stroke 12 Can one be overhauled while the other is at work Yes
Feed Pumps { No. and size 1 Pumps connected to the { No. and size 1
How driven By Main Engines Main Bilge Line How driven By Main Engines
Ballast Pumps, No. and size 1 Lubricating Oil Pumps, including Spare Pump, No. and size 1
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 Yes
In Pump Room Yes In Holds, &c. Yes
Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1
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 Yes
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 Yes
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 Yes How are they protected By covers
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 Yes) Total Heating Surface of Boilers 1356
Which Boilers are fitted with Forced Draft Yes Which Boilers are fitted with Superheaters Yes
No. and Description of Boilers 1—Single Endless Working Pressure 200 lbs/sq. in.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? No.
IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? No.
Can the donkey boiler be used for domestic purposes only Yes
PLANS. Are approved plans forwarded herewith for Shafting 16-7-42 Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes
(If not state date of approval)
Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

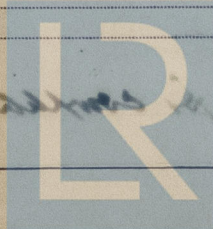
SPARE GEAR.

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.

FOR MCKIE & BAXTER, LIMITED,

Manufacturer.



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Lloyd's Register
Foundation

010961-010969-0090

02872

During progress of work in shops - - { 1942 Apr 16 21 Jun 26 Jul 7 13 Sep 2 8 17 Oct 1 7 13 14 21 30 Nov 4 13 Dec 23
1943 Jan 29 Feb 27 Mar 3 12 23 Apr 2 28 May 3 Jun 25 July 7
During erection on board vessel - - {
Total No. of visits 29

Dates of Examination of principal parts - Cylinders 12-3, 16, 21-4-42 Slides 16-4-42 Covers 7-7-43
Pistons 2-9-42 Piston Rods 2-9-42 Connecting rods 1-10-42
Crank shaft 2-9-42, 24-12-42 Thrust shaft 2-9-42, 28-4-43 Intermediate shafts 2-9-42, 28-4-43
Tube shaft - Screw shaft 8-9-42, 13-11-42, 28-4-43 Propeller 3-3-43, 28-4-43
Stern tube 28-4-43 Engine and boiler seatings Engines holding down bolts
Completion of fitting sea connections Boilers fixed Engines tried under steam
Completion of pumping arrangements Thickness of adjusting washers
Main boiler safety valves adjusted Crank shaft material O.H. Steel Identification Mark LLOYDS No 11602 Thrust shaft material S.M. Steel Identification Mark LLOYDS No 6902
Intermediate shafts, material S.M. Steel Identification Marks LLOYDS No 6901 Tube shaft, material - Identification Mark -
Screw shaft, material S.M. Steel Identification Mark LLOYDS No 6900 Steam Pipes, material - Test pressure - Date of Test -
Is an installation fitted for burning oil fuel 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 No Report No 65420
General Remarks (State quality of workmanship, opinions as to class, etc.) The machinery of this vessel has been constructed under Special Survey in accordance with the Rule Requirements, approved plans, or specification. The materials & workmanship are good. The machinery has been dispatched to Hull for installation in a vessel building by Messrs R. Duwastou Ltd, Yard No. 383

The above main engine installed on board single screw tug "Empire Lewis" at Hull. See separate report no 4
W.S. Shields

13 JUL 1943

The amount of Entry Fee	£ 2	0	0	When applied for,
Special	£ 8	10	0	13 JUL 1943
Donkey/Boiler Fee	£ 2	2	6	When received,
Travelling Expenses (if any)	£			19

Committee's Minute GLASGOW 13 JUL 1943
Assigned Depred & completion. See fe machy rpl. 13 JUL 1943
R. J. Easthope
Engineer Surveyor to Lloyd's Register of Shipping

