

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 1942 When handed in at Local Office 21 DEC 1942 Port of LIVERPOOL 30 DEC 1942

No. in Survey held at WIGAN Date, First Survey 19/12/41 Last Survey 10/12/42

Reg. Book WIGAN (Number of Visits 17)

on the Stal Singh Sewu Tug EMPIRE LILLIPUT A/MS 401 Tons {Gross 138
Net nil

Built at Thorne By whom built Richard Dunston L^a Yard No. T 385 When built 1944

Engines made at WIGAN By whom made WORSLEY MESNES IRONWORKS Engine No. M.3. When made 1942

Boilers made at Stockton-on-Tees By whom made Stockton Chem Eng & Boiler No. 6618 When made 1944

Registered Horse Power 85 Owners Ministry of War Transport Port belonging to

Nom. Horse Power as per Rule 85 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

Trade for which vessel is intended Young Service

ENGINES, &c.—Description of Engines TRIPLE EXPANSION (INVERTED) Revs. per minute 140

Dia. of Cylinders 12" x 20" x 32" Length of Stroke 22" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 6.4 Crank pin dia. 6.5 Crank webs Mid. length breadth 9.6 Thickness parallel to axis 4.125

as fitted 6.5 Mid. length thickness 4.125 Thickness around eye-hole 2.8

Intermediate Shafts, diameter as per Rule 6.12 Thrust shaft, diameter at collars as per Rule 6.4

as fitted 6.25 as fitted 6.5

Tube Shafts, diameter as per Rule 7.08 Is the tube shaft fitted with a continuous liner NO

as fitted Screw Shaft, diameter as fitted 7.125 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 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 NEWMARK PATENT TYPE NO 3 Length of Bearing in Stern Bush next to and supporting propeller 29"

Propeller, dia. 8'-0" Pitch 9'-2" No. of Blades 4 Material E.I. whether Moveable Yes Total Developed Surface 25.2 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 One 6", 4 1/2", 10" Pumps connected to the Main Bilge Line { No. and size One 7 1/2", 5", 6"

How driven Ind. Strm. How driven Ind. Strm.

Ballast Pumps, No. and size One 7 1/2", 5", 6" as above Lubricating Oil Pumps, including Spare Pump, No. and size None

Are two independent means arranged for circulating water through the Oil Cooler Yes Sections, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room E.R. 1-2" BR. 1-2" also direct suction - see below.

In Pump Room Yes In Holds, &c. FPT One 2" APT One 2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 2 1/2" in E.R. One 2 1/2" BR. 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, OR ON E.W. STR. BOXES 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 NONE 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 5) Total Heating Surface of Boilers 1716 sq ft

Which Boilers are fitted with Forced Draft NONE Which Boilers are fitted with Superheaters NONE

No. and Description of Boilers 158 Working Pressure 200 lb

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

Can the donkey boiler be used for domestic purposes only Yes

PLANS. Are approved plans forwarded herewith for Shafting 16.7.42 Main Boilers 10.11.41 Auxiliary Boilers Yes Donkey Boilers Yes

(If not state date of approval)

Superheaters Yes General Pumping Arrangements 17.3.41 Oil fuel Burning Piping Arrangements Yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES, EXCEPT SET OF RINGS FOR HP PISTON & PISTON VALVES.

State the principal additional spare gear supplied As per Specification

The foregoing is a correct description.

WORSLEY MESNES IRONWORKS LTD.

J. A. Melling
Director

Manufacturer.



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Lloyd's Register Foundation

E. LILLIPUT

1941 1942
 Dec 19. Jan 8. June 11. Sept 15. 24. Oct 1. 8. 13. 22. 29. Nov 5. 12. 19. 26. Dec 3. 10.
 During progress of work in shops --
 Dates of Survey while building
 During erection on board vessel --- 1943 Oct 20 Nov 2, 8, 29, 30 DEC 1, 7, 10, 13, 15, 21, 24
 1944 JAN 6, 14, 19, 20, 21, 23, 25, 26, 27, 30, 31.
 Total No. of visits 17 + 23 = 40.

Dates of Examination of principal parts - Cylinders 22-10-42 Slides 22-10-42 Covers 22-10-42
 Pistons 8-10-42 Piston Rods 8-10-42 Connecting rods 8-10-42
 Crank shaft 8-10-42 Thrust shaft 8-10-42 Intermediate shafts 30-11-43
 Tube shaft --- Screw shaft 8-10-42 Propeller 8-11-43
 Stern tube 8-11-43 Engine and boiler seatings 29-11-43 Engines holding down bolts 7-12-43
 Completion of fitting sea connections 8-11-43
 Completion of pumping arrangements 28/12/43 Boilers fixed 7-12-43 Engines tried under steam 28/12/43
 Main boiler safety valves adjusted 21/1/44 Thickness of adjusting washers P 9/32 S 3/16
 Crank shaft material STEEL Identification Mark 2343 Thrust shaft material F.I.S. Identification Mark LLOYD'S HT 2340 8-10-42
 Intermediate shafts, material F.I.S. Identification Marks 2418 18-11-43 Tube shaft, material NONE Identification Mark ✓
 Screw shaft, material F.I.S. Identification Mark LLOYD'S HT 2342 8-10-42 Steam Pipes, material STL. Test pressure 600 lb Date of Test 10.12.43
 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 E. LEWIS

General Remarks (State quality of workmanship, opinions as to class, &c.)
 THESE ENGINES HAVE BEEN BUILT UNDER SPECIAL SURVEY IN ACCORDANCE WITH THE RULES. THE MATERIALS & WORKMANSHIP ARE GOOD.
 THE ABOVE ENGINES HAVE BEEN ERRECTED & AWAIT DELIVERY INSTRUCTIONS. SINCE THEY WILL BE FITTED TO R DUNSTON TUG N° 385 AT HULL.

The machinery of this vessel has been installed under Special Survey in accordance with the Rule requirements, approved plans & specifications. The materials and workmanship are good and machinery found satisfactory in every respect after all tests.
 Eligible for record of * LMC 2, 44 OG T 30y. 12", 20", 32" - 22" NHP 85.
 15B 200 lb. 3cf HS 1716 # GS 59 #
 W.S. Shields, Hull

Certificate to be sent to

Also chgd at Hull. 28-1-44
 F.E. 52. } Hullafe. S/H (P&H)
 Class (P.M.) 24-5-0. }
 Spec. do. 23-3-3 }
 The amount of Entry Fee ... £ 8 : 10
 Special SPECIFICATION £ 2 : 2/6
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 3 : 5/6
 When applied for, 23 DEC 1943
 When received, 19

W. J. Taylor
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 29 DEC 1943
 Assigned Transmit to London.

TUES. 22 FEB 1944



Rpt. 5a.
 Date of writing
 No. in Reg. Book.
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 Boilers ma
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