

REPORT ON OIL ENGINE MACHINERY.

No. 19140

Received at London Office 18 AUG 1950
MIDDLESBROUGH.

ate of writing Report 25th July 19 50. When handed in at Local Office 4th August 50 Port of
o. in Survey held at MIDDLESBROUGH. Date, First Survey 8th February, Last Survey 27th July, 19 50.
eg. Book. Number of Visits 54
Single on the Twin Triple Quadruple Screw vessel m.v. "LUMEN". Tons Gross 10146.25 Net 5864.66
uilt at South Bank By whom built Smith's Dock Co. Ltd. Yard No. 1197 When built 1950
Engines made at Newcastle-on-Tyne By whom made R. & W. Hawthorne Leslie & Co. Engine No. 4059 When made 1950
Monkey Boilers made at West Hartlepool By whom made Central Marine Engine Works Ltd. Boiler No. R.396 When made 1949
4750 Estimated Brake Horse Power 4400 Service Owners The Lustrous Steamship Co. Ltd. Port belonging to Liverpool
N. Power as per Rule 902 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
rade for which vessel is intended Tanker

L ENGINES, &c. —Type of Engines 2 or 4 stroke cycle Single or double acting
Minimum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks
Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured 116 estimated
inner edge to inner edge Is there a bearing between each crank Revolutions per minute 112 service
Flywheel dia. Weight Moment of inertia of flywheel (lbs.in² or Kg.cm.²) 107075 Means of ignition Kind of fuel used
Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis
Crank webs Mid. length thickness Thickness around eye
Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collar as fitted
Screw Shaft, diameter as fitted Is the tube screw shaft fitted with a continuous liner
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes 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
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 tube shaft 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
Moment of inertia of propeller (lbs.in² or Kg.cm.²) Kind of damper, if fitted
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of
lubrication Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled
lagged with non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
back to the engine Cooling Water Pumps, No. 2 { 1-ME Driven 1-10" x 12" x 12" Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Bilge Pumps worked from the Main Engines, No. None Diameter - Stroke - Can one be overhauled while the other is at work -
Pumps connected to the Main Bilge Line No. and size 1-Ballast 10" x 12" x 12" 1 Bilge & Sanitary 8" x 8" x 10" How driven steam
Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements
Last Pumps, No. and size 1-10" x 12" x 12" Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1-M.E. Driven 1-Weirs 9" x 8" x 18"
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary
oil pumps, No. and size:—In machinery spaces 3-3" Bilge Suctions, 3-2" Cof. Suctions & In pump room Aft 2-4" Ford
holds, &c. 1-6" fore peak, 1-3 1/2" aft. peak, 2-2 1/2" Fore hold, 1-2 1/2" chain locker, 2-2 1/2" store, 1-7" cofferdam
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 - 5"
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction in the machinery spaces 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 platform plates Yes Are the overboard discharges above or below the deep water line Below
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
Do all pipes pass through the bunkers None How are they protected
Do all 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 Is it fitted with a watertight door worked from
wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Main Air Compressors, No. 2 - Reavell No. of stages 2 diameters 4 1/8" : 10 1/4" stroke 8" driven by Steam (Readers)
Auxiliary Air Compressors, No. None No. of stages diameters stroke driven by
All Auxiliary Air Compressors, No. None No. of stages diameters stroke driven by
Is provision made for first charging the air receivers Steam driven compressors
Venting Air Pumps, No. see Newcastle diameter Report No. 107075 stroke driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted Position
Have the auxiliary engines been constructed under special survey Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey.....

State No. of report or certificate.....

Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....

Can the internal surfaces of the receivers be examined and cleaned.....

Injection Air Receivers, No.....

Cubic capacity of each.....

Seamless, welded or riveted longitudinal joint.....

Material.....

Range of tensile strength.....

Working pressure.....

Starting Air Receivers, No.....

Total cubic capacity.....

Internal diameter.....

thickness.....

Seamless, welded or riveted longitudinal joint.....

Material.....

Range of tensile strength.....

Working pressure.....

IS A DONKEY BOILER FITTED **Yes - 2** If so, is a report now forwarded **Yes**

Is the donkey boiler intended to be used for domestic purposes only.....

No ☒

PLANS. Are approved plans forwarded herewith for shafting.....

No ☒

Receivers.....

No ☒

Separate fuel tanks.....

Donkey boilers.....

No ☒

General pumping arrangements.....

Yes ☒

Pumping arrangements in machinery space.....

Yes ☒

Oil fuel burning arrangements.....

Yes ☒

Have Torsional Vibration characteristics been approved.....

Date of approval.....

SPARE GEAR.

Yes ☒

Has the spare gear required by the Rules been supplied.....

State the principal additional spare gear supplied.....

The foregoing is a correct description of **FOR SMITH'S DOCK CO. LTD.**

Manufacturer.....

Dates of Survey while building.....

During progress of work in shops.....

During erection on board vessel.....

Total No. of visits.....

ENGINE WORKS MANAGER

1950 Feb. 8. Mar. 13. 17. 24. 27. 28. 29. Apr. 4. 12. 13.

Apr. 21. 25. 26. 28. May. 1. 2. 4. 9. 10. 12. 15. 17. 18. 22. 23. 24. 25. 26. 30. 31. June 1. 2.

June 8. 9. 13. 14. 20. 21. 22. 26. 28. 29. July 3. 6. 7. 10. 11. 12. 26. 27.

Dates of examination of principal parts.....

Cylinders.....

Covers.....

Pistons.....

Rods.....

Connecting rods.....

Crank shaft.....

Flywheel shaft.....

Thrust shaft.....

Intermediate shafts.....

26.4.50

Tube shaft.....

Screw shaft.....

28/29.3.50

Propeller.....

28/29.3.50

Stern tube.....

24.27.3.50

Engine seatings.....

26/30.5.50

Engine holding down bolts.....

30.5.

Completion of fitting sea connections.....

4.4.50.

Completion of pumping arrangements.....

Engines tried under working conditions.....

Crank shaft, material.....

Identification mark.....

Flywheel shaft, material.....

Identification mark.....

Thrust shaft, material.....

Identification mark.....

Intermediate shafts, material.....

Steel

Identification marks.....

Tube shaft, material.....

Identification mark.....

Screw shaft, material.....

Steel

Identification mark.....

Identification marks on air receivers.....

"

"

Propeller 4059

Lloyds G.A.B. 12.4.49

Welded receivers, state Makers' Name.....

see Newcastle Report

Is the flash point of the oil to be used over 150°F.....

Yes ☒

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.....

Yes ☒

Description of fire extinguishing apparatus fitted.....

steam smothering

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.....

No ☒

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with.....

No ☒

If so, state name of vessel.....

Is this machinery duplicate of a previous case.....

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

These engines and boilers have been

fitted aboard this vessel in accordance with the approved plans and rule requirements and on

completion the machinery was tried under working conditions and found satisfactory.

In my opinion this vessel is now eligible for a record of LMC. 7.50 and notation of TS. (GL) 7.

The amount of Entry Fee... 1/3 ... £ 85 : 3/.

Special ...

£ :

When applied for 17-8-50. ☒

Donkey Boiler Fee... £ :

When received.....

19

Travelling Expenses (if any) £ :

Committee's Minute.....

FRI. 1 SEP 1950

Assigned.....

+ LMC 7.50 Oil Eng

C.L. 2DB 18016.

Chairman of the Committee for Lloyd's Register of Shipping



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