

REPORT ON OIL ENGINE MACHINERY.

No. 105978

Received at London Office 21 MAY 1948
NEWCASTLE-ON-TYNE

ite of writing Report 18.5 1948 When handed in at Local Office 18.5 1948 Port of NEWCASTLE & HEBBURN-ON-TYNE. Date, First Survey 1.11.46. Last Survey 13.5 1948. Number of Visits 96.

Single on the Triple Quadruple Screw vessel M.V. LABIOSA Tons Gross 6473.36 Net 3604.00

uilt at HEBBURN-ON-TYNE. By whom built R.W. HAWTHORN LESLIE & Co. L^{td} Yard No. 692 When built 1948

Engines made at NEWCASTLE-ON-TYNE By whom made R.W. HAWTHORN LESLIE & Co. L^{td} Engine No. 4047 When made 1948

Monkey Boilers made at WALLSEND-ON-TYNE By whom made NORTH EASTERN MARINE ENG. CO (1938) L^{td} Boiler No. 3161 When made 1947

ake Horse Power 2800 Owners THE ANGLO-SAXON PETROLEUM CO. L^{td} Port belonging to LONDON

m. Horse Power as per Rule 566. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.

ade for which vessel is intended OPEN SERVICE.

ENGINES, &c. — Type of Engines HAWTHORN WERKSPOOK SUPERCHARGED 2 or 4 stroke cycle 4 Single or double acting SINGLE.

imum pressure in cylinders 700 lbs/sq. in. Diameter of cylinders 6.50 in. Length of stroke 14.00 in. No. of cylinders 6 No. of cranks 6

an Indicated Pressure 135 lbs/sq. in. of bearings, adjacent to the crank, measured from inner edge to inner edge 844 in. Is there a bearing between each crank Yes.

olutions per minute 120 Flywheel dia. 2260 in. Weight 6.3 Tons Means of ignition COMPRESSION Kind of fuel used OIL & DIESEL OIL.

ank dia. of journals as per Rule 442 in. Crank pin dia. 460 in. Crank webs Mid. length breadth 870 in. Thickness parallel to axis 267 in. shrunk Thickness around eye-hole 204 in.

ylwheel Shaft, diameter as per Rule 340 in. Intermediate Shafts, diameter as per Rule 312 in. Thrust Shaft, diameter at collars as fitted 340 in.

ibe Shaft, diameter as per Rule 342 in. Screw Shaft, diameter as fitted 370 in. Is the tube screw shaft fitted with a continuous liner Yes.

onze Liners, thickness in way of bushes as per Rule 18.5 in. Thickness between bushes as per Rule 13.3 in. 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.

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. No. If so, state type.

ropeller, dia. 14'0" Pitch 11'9" No. of blades 4 Material MANE BRONZE whether moveable No Total developed surface 62 sq. feet

ethod of reversing Engines A.K. SERVO MOTOR. Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication FORCED. Thickness of cylinder liners 55 in. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled lagged with non-conducting material LAGGED. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. LEAD UP LINE. Cooling Water Pumps, No. FOUR. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

ilge Pumps worked from the Main Engines, No. ONE. Diameter ROTARY Stroke Can one be overhauled while the other is at work.

umps connected to the Main Bilge Line No. and size THREE ONE ROTARY 28 TONS/HK ONE BALLAST 100 TONS/HK ONE BILGE 32 TONS/HK How driven MAIN ENGINE STEAM STEAM.

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.

allast Pumps, No. and size ONE 100 TONS/HK. Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE MAIN ENGINE 40 TONS/HK ONE STANDBY 50 TONS/HK.

re two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces THREE EACH 3" DIAMETER In pump room ONE 2" DIAMETER.

holds, &c. FORE HOLD TWO 2 1/2" DIA. — FORE STROKE TWO 2" DIA. — FORE COFFERDAM ONE 4" DIA. — AFT COFFERDAM ONE 4" DIA.

dependent Power Pump Direct Suctions to the engine room bilges, No. and size THREE ONE 7" DIA, ONE 5" DIA, ONE 3" DIA. (BILGE PUMP DIRECT SUCTION EXTRA TO MAIN BILGE PUMP)

re 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.

re all Sea Connections fitted direct on the skin of the Ship Yes. Are they fitted with valves or cocks BOTH. Are they fixed efficiently 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 ABOVE.

re 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.

hat pipes pass through the bunkers OIL RISER ONE 4" AFT COFFERDAM SUCTION How are they protected.

hat pipes pass through the deep tanks NONE Have they been tested as per Rule.

re all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

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 NONE Is it fitted with a watertight door worked from.

f a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.

ENGINE Main Air Compressors, No. NONE No. of stages driven by.

uxiliary Air Compressors, No. TWO No. of stages TWO ONE 90 cu ft PER MINUTE driven by AUX DIESEL ENGINE ONE 120 cu ft PER MINUTE driven by STEAM ENGINE.

Small Auxiliary Air Compressors, No. No. of stages driven by.

hat provision is made for first charging the air receivers AUXILIARY STEAM OR OIL ENGINE DRIVEN COMPRESSOR.

evacuating Air Pumps, No. NONE diameter stroke driven by COMPRESSOR ONE 4 CYL 45 CUBIC INCH AUX DIESEL ENGINE DRIVING DYNAMO A/C ONE SINGLE CYLINDER ENCLOSED STEAM ENGINE DRIVING DYNAMO.

uxiliary Engines crank shafts, diameter as per Rule JOURNALS 4 3/16 PIN 3 1/4 (AUX DIESEL ENGINE) Position ENGINE ROOM STARBOARD SIDE.

ave the auxiliary engines been constructed under special survey. AUX DIESEL ENGINE Yes. Is a report sent herewith. AUX DIESEL ENGINE Yes.

005424-005435-0024

AIR RECEIVERS:—Have they been made under survey *Ex M.V. CLAM* State No. of report or certificate *✓*
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *YES*
Can the internal surfaces of the receivers be examined and cleaned *YES* Is a drain fitted at the lowest part of each receiver *YES*
Injection Air Receivers, No. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*
Starting Air Receivers, No. *ONE* Total cubic capacity *462 cu ft* Internal diameter *PLEASE SEE M.V. CLAM FIRST ENTRY REPORT*
Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*

IS A DONKEY BOILER FITTED *YES* 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 *YES* Receivers *✓* Separate fuel tanks *✓*
(If not, state date of approval)
Donkey boilers *✓* General pumping arrangements *✓* Pumping arrangements in machinery space *YES*
Oil fuel burning arrangements *YES*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *YES*
State the principal additional spare gear supplied *As per Attached List*

TORSIONAL CHARACTERISTICS APPROVED SEE LONDON LETTER OF 7.11.46. Service Speed 11.5 RPM.

The foregoing is a correct description, AND THE PARTICULARS OF THE INSTALLATION AS FITTED ARE AS APPROVED
28th June 47. Manufacturer. *FOR TORSIONAL VIBRATION CHARACTERISTICS.*

Dates of Survey while building
During progress of work in shops - *1946 NOV. 1, 5, 1947 JAN. 3, 21, FEB. 3, 17, 18, MAR. 4, 18, 25, APR. 2, 14, MAY. 2, 5, 7, 13, 16, 19, 22, 27, JUNE 11, 12, 16, 19, 23, 26, 30, JULY 3, 16, 26, 31, AUG. 6, 13, 15, 25, 27, SEPT. 1, 2, 10, 16, 18, 22, 26, OCT. 6, 8, 17, 21, 29, NOV. 3, 5, 6, 12, 17, 18, DEC. 1, 9, 10, 11, 12, 1948 JAN. 5, 7, 9, 13, 15, 19, 26, 30, FEB. 2, 19, 24, 27, MAR. 3, 4, 11, 16, 20, 31, APR. 7, 12, 13, 19, 20, 26, 28, 29, MAY. 3, 5, 6, 7, 10, 12, 13.*
During erection on board vessel - *13, 15, 19, 26, 30, FEB. 2, 19, 24, 27, MAR. 3, 4, 11, 16, 20, 31, APR. 7, 12, 13, 19, 20, 26, 28, 29, MAY. 3, 5, 6, 7, 10, 12, 13.*
Total No. of visits *96.*

Dates of examination of principal parts—Cylinders *16.6.47* Covers *16.6.47* Pistons *16.5.47* Rods *3.9.47* Connecting rods *30.6.47*
Crank shaft *10.9.47* Flywheel shaft *17.11.47* Thrust shaft *11.6.47* Intermediate shafts *10.12.47* Tube shaft *✓*
Screw shaft *29.10.47* Propeller *29.10.47* Stern tube *1.12.47* Engine seatings *✓* Engine holding down bolts *27.2.48*
Completion of fitting sea connections *19.1.48* Completion of pumping arrangements *12.5.48* Engines tried under working conditions *12.5.48*
Crank shaft, material *SM OH STEEL* Identification mark *F3455 Lloyds #16670 H.A.I. 17.7.47* Flywheel shaft, material *SM OH STEEL* Identification mark *F3449 Lloyds #16049 H.A.I. 20.4.47*
Thrust shaft, material *SM OH STEEL* Identification mark *F3450 Lloyds #16049 H.A.I. 26.3.47* Intermediate shafts, material *SM OH STEEL* Identification marks *F3459 Lloyds #16049 H.A.I. 2.9.47*
Tube shaft, material *✓* Identification mark *✓* Screw shaft, material *SM OH STEEL* Identification mark *F3458 Lloyds #16049 H.A.I. 20.4.47*
Identification marks on air receivers *LLOYDS TEST 650 LBS WP 450 LBS FWB 11.2.26. RETESTED LLOYDS TEST 650 LBS WP 350 LBS T.A.O. 16.9.47 JAO.*

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 *1-10 GALL FORTITE PORTABLE FIRE EXTINGUISHER IN ENGINE ROOM. BOTTOM PATTERNS. BOILER ROOM WITH LONG HOSE. IN MACHINERY SPACES. STEAM FIRE EXTINGUISHING PIPES IN ENGINE & BOILER ROOMS CONTROLLED FROM BOILER ROOM.*
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 *M.V. LAMPANIA*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed & installed on board under special survey, in accordance with the Rules & Approved Plans. The materials & workmanship are good. Satisfactory basin & sea trials were witnessed & the machinery is eligible in my opinion to have record of LMC 5,48 & notation TS CL - Oil Eng MACHY AFT - ONE DB 180 LBS*
TORSIONAL VIBRATION CHARACTERISTICS approved for a Service Speed of 11.5 rpm See letter 7/11/46.

OLD FEE £131-12-0 3/5 OLD FEE = £78-19-0 } TOTAL £154-5-0.
NEW . £188-4-0 2/5 NEW FEE = £75-6-0 }

The amount of Entry Fee £154 : 5 :
Air Receiver Ex M.V. CLAM *2 : 2* When applied for 19
Elec Welded Consn *9 : 15* When received 19
Donkey Boiler Fee. (34 Tons) £
Travelling Expenses (if any) £

Committee's Minute *4 JUN 1946*

Assigned *+ LMC 5,48 Oil Eng. C.L. DB. 180 LBS.*

J.A. Orde
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation