

REPORT ON OIL ENGINE MACHINERY.

No 20771

5 SEP 1942

Received at London Office

List 4b.

of writing Report

3-9-1942

When handed in at Local Office 3-9-1942

Port of Leith.

in Survey held at

Burntisland

Date, First Survey 25-5-42

Last Survey 31-8-1942.

Number of Visits 15.

391 on the

Single Triple

Screw vessel

M.V. "LAMBROOK."

Tons Gross 7038 Net 5157.

built at Burntisland

By whom built Burntisland S.B. Co. Ltd. Yard No. 260 When built 1942

engines made at Sunderland

By whom made Wm. Hoxford & Sons Ltd. Engine No. 224 When made 1942

Boilers made at Stockton

By whom made Stockton Chem. Eng. & Riley Boilers Ltd. Boiler No. 6624 When made 1942

Indicated Horse Power 2500

Owners Austin Friars Steam Shipping Co. Ltd. Port belonging to London

Net Horse Power as per Rule 516

Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

Use for which vessel is intended

ENGINES, &c.—Type of Engines

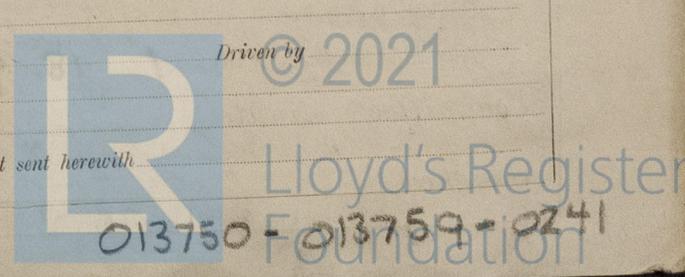
Minimum pressure in cylinders _____ 2 or 4 stroke cycle _____ Single or double acting _____
 Indicated Pressure _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____
 Bearings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank _____
 Revolutions per minute _____ Flywheel dia. _____ Weight _____ Means of ignition _____ Kind of fuel used _____
 Crank pin dia. _____ Crank pin dia. _____ Crank Webs _____ Mid. length breadth _____ Thickness parallel to axis _____
 Crank pin dia. _____ as per Rule _____ as fitted _____ Mid. length thickness _____ Thickness round eyehole _____
 Wheel Shaft, diameter _____ as per Rule _____ as fitted _____ Intermediate Shafts, diameter _____ as per Rule _____ as fitted _____ Thrust Shaft, diameter at collars _____ as per Rule _____ as fitted _____
 Main Shaft, diameter _____ as per Rule _____ as fitted _____ Screw Shaft, diameter _____ as per Rule _____ as fitted _____ Is the tube screw shaft fitted with a continuous liner _____
 Thickness of liners, thickness in way of bushes _____ as per Rule _____ as fitted _____ Thickness between bushes _____ as per Rule _____ as fitted _____ Is the after end of the liner made watertight in the stern tube _____
 If the liner is in more than one length are the junctions made _____ Is an approved Oil Gland or other appliance fitted at the after end of the tube _____
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space filled with plastic material insoluble in water and non-corrosive _____
 If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller _____
 No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet _____
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched _____ Means of lubrication _____
 Are the exhaust pipes and silencers water cooled or lagged with _____
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
 Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____ Fresh water cooling.

See Sunderland Ref. No. 33415.
 No. and Size 1 Bilge 10' x 11' x 10" 1 Bilge 7' x 7' x 12" 1 Gen. Service Pump 7' x 7' x 12"
 How driven Steam Steam Steam
 Are 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 _____
 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size _____
 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____
 Are the Bilge Suctions in the Machinery Spaces _____
 Are they filled with Valves or Cocks Both
 Are the Overboard Discharges above or below the deep water line Below.
 Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes.
 How are they protected _____
 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.

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 No. worked from _____
 If a 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. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 What provision is made for first Charging the Air Receivers _____
 Scavenging Air Pumps, No. _____ Diameter _____ 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 _____

2 PORT, 2 STAR = 3" DIA. 1 DIRECT PORT = 5" DIA. 1 DIRECT STAR = 8" DIA. In Pump Room ✓
 N° 1 Hold 1 P. 1 S. = 3 1/2" Dia. N° 2 Hold 1 P. 1 S. = 3 1/2" Dia. N° 3 Hold 1 P. 1 S. = 2 1/2" Dia. N° 4 Hold 1 P. 1 S. = 3 1/2" Dia. N° 5 Hold 1 P. 1 S. = 3 1/2" Dia. TUNNEL WELL SUCTION = 2 1/2" DIA.
 All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes.
 From easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.
 All Sea Connections fitted direct on the skin of the ship Yes.
 They fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes.
 They each fitted with a Discharge Valve always accessible on the plating of the vessel Yes.
 All pipes pass through the bunkers Bilge Suctions
 All pipes pass through the deep tanks Bilge Suctions

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 No. worked from _____
 If a 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. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 What provision is made for first Charging the Air Receivers _____
 Scavenging Air Pumps, No. _____ Diameter _____ Stroke _____ Driven by _____
 Auxiliary Engines crank shafts, diameter _____ as per Rule _____ as fitted _____ Position _____
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AIR RECEIVERS: - Have they been made under survey *Yes.* State No. of Report or Certificate *C. 45772 Glasgow.*
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes. Fusable plug in each receiver & safety valve on compressor*
 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. *2* Total cubic capacity *220 cub. ft.* Internal diameter *42"* thickness *1"*
 Seamless, lap welded or riveted longitudinal joint *riveted* Material *steel* Range of tensile strength *✓* Working pressure *by Rules Actual 600 lbs.*

IS A DONKEY BOILER FITTED? *Yes.* If so, is a report now forwarded? *Yes. Middlesbrough Rpt. N.*
 Is the donkey boiler intended to be used for domestic purposes only *✓*

PLANS. Are approved plans forwarded herewith for Shafting *✓* Receivers *✓* Separate Fuel Tanks *✓*
 (If not, state date of approval)
 Donkey Boilers *✓* General Pumping Arrangements *Yes. (Hull)* Pumping Arrangements in Machinery Space *Yes.*
 Oil Fuel Burning Arrangements *Yes.*

SPARE GEAR.
 Has the spare gear required by the Rules been supplied *Yes. See Sunderland Rpt. N-33415.*
 State the principal additional spare gear supplied *✓*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits *15.*

Dates of Examination of principal parts - Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft *in place 18-6-42* Propeller *in place 18-6-42* Stern tube *in place 9-6-42* Engine seatings *12-6-42* Engines holding down bolts *10-8-42*
 Completion of fitting sea connections *12-6-42* Completion of pumping arrangements *24-8-42* Engines tried under working conditions *21-8-42*
 Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark
 Identification Marks on Air Receivers *2- N-21025, L.C.II. 16-4-42. Glasgow Cert. N-45772.*

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 perforated pipes in boiler room & engine room & a number of hand extinguishers*
 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 *No.* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery - Sunderland Rpt. N-33415 has been efficiently fitted on board, the materials and workmanship being sound and good. The main and auxiliary machinery was finally tried out at sea, under full load and working conditions, and it was found satisfactory. Manoeuvring tests were carried out, and the capacity of the air receivers was found to be in excess of the rule requirements. In my opinion the machinery of this vessel is eligible to be classed in the Register Book with the notations of L.M.C. 8-42, bil engine, T.S.C.L., 21.B. 120 lbs/10".*

The amount of Entry Fee .. £ : : When applied for,
L.M.C. 33 : 12 : 0 3-9-1942
 Special
 Donkey Boiler Fee When received,
 Travelling Expenses (if any) £ *1 : 18 : 9* 19

J. J. Campbell
 Engineer Surveyor to Lloyd's Register of Shipping.
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Committee's Minute *FRI. 25 SEP 1942*
 Assigned *to L.M.C. 8-42 21.B. - 120 lbs*
at sea. Ch

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