

REPORT ON OIL ENGINE MACHINERY.

No. 79960

Received at London Office

-6 JAN 1926

Date of writing Report *Feb 19th 1925* When handed in at Local Office *Feb 19th 1925* Port of **NEWCASTLE ON TYNE**

No. in Survey held at *Amble* Date, First Survey *Oct 14th 1925* Last Survey *Feb 18th 1925*
 Reg. Book. *Amble* Number of Visits *4*

on the *Single* } Screw vessels *Motor vessel "Southgate"* Tons (Gross) *143.43*
Triple } (Net) *54.98*

Built at *Amble* By whom built *Amble S. B. Co. Lim* Yard No. *39* When built *1925*
 Engines made at *Manchester* By whom made *S. Gardner & Sons Lim* Engine No. *26399* When made *1925*
 Donkey Boilers made at *Home* By whom made *-* Boiler No. *-* When made *-*
 Brake Horse Power *140* Owners *Anglo American Oil Co Lim* Port belonging to *London*
 Nom. Horse Power as per Rule *40* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

OIL ENGINES, &c.—Type of Engines *Vertical Semi Diesel* ✓ *2* stroke cycle *2* Single or double acting *Yes* ✓

Maximum pressure in cylinders *-* No. of cylinders *-* Diameter of cylinders *-* No. of cranks *-* Length of stroke *-*
 Span of 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 Shaft, dia. of journals *-* as per Rule *-* as fitted *-* Crank pin dia. *-* Crank Webs Mid. length breadth *-* Thickness parallel to axis *-*
 as fitted *-* Mid. length thickness *-* Thickness around eyehole *-*
Flywheel Shafts, diameter *-* as per Rule *-* as fitted *-* **Intermediate Shafts**, diameter *-* as per Rule *-* as fitted *-* **Thrust Shaft**, diameter at collars *-* as per Rule *-* as fitted *-*
Tube Shafts, diameter *-* as per Rule *-* as fitted *-* **Screw Shaft**, diameter *-* as per Rule *-* as fitted *-* Is the *tube* } shaft fitted with a continuous liner { *-*
 as fitted *-* as fitted *-* as fitted *-*
Bronze 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 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 *-*
 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 *-*
 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 the tube shaft *Yes* *Nichols* 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 *-*
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 or 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 *Exhaust into funnel* ✓
Cooling Water Pumps, No. *-* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes* ✓
Bilge Pumps fitted to the **Main Engines**, No. *-* Diameter *-* Stroke *-* Can one be overhauled while the other is at work *-*
Pumps connected to the **Main Bilge Line** { No. and Size *one 2" ✓* *one 2" ✓*
 How driven *Rotary pump* *in main engine*
Rotary pump (30 tons per hour)
Ballast Pumps, No. and size *one 4" ✓* **Lubricating Oil Pumps**, including Spare Pump, No. and size *-*
 Are two independent means arranged for circulating water through the **Oil Cooler** *-* **Suctions**, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room *one 2" aux ✓* *one 2" main ✓*
 In Holds, &c. *none* *Hand pump 4"-2" in Fore Peak*
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *as mentioned above ✓*
 Are all the Bilge Suction pipes in ~~Holds and Tunnel Well~~ *Yes* ✓ 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 *No* *strum boxes at ends ✓*
 Are all **Sea Connections** fitted direct on the skin of the ship *Yes* ✓ Are they fitted with Valves or Cocks *Cocks ✓*
 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 *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 *none ✓*
 What pipes pass through the bunkers *none* *(no bunkers) ✓* How are they protected *-*
 What 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 *none ✓* Is it fitted with a watertight door *-* worked from *steel panel ✓*
 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *steel panel ✓*

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 *-*
Scavenging Air Pumps, No. *-* Diameter *-* Stroke *-* Driven by *-*
Auxiliary Engines crank shafts, diameter *-* as per Rule *-* as fitted *-*

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *-*

Can the internal surfaces of the receivers be examined *-* What means are provided for cleaning their inner surfaces *-*
 Is there a drain arrangement fitted at the lowest part of each receiver *-*

High Pressure Air Receivers, No. *-* Cubic capacity of each *-* Internal diameter *-* thickness *-*
 Seamless, lap welded or riveted longitudinal joint *-* Material *-* Range of tensile strength *-* Working pressure by Rules *-*
Starting Air Receivers, No. *-* Total cubic capacity *-* Internal diameter *-* thickness *-*
 Seamless, lap welded or riveted longitudinal joint *-* Material *-* Range of tensile strength *-* Working pressure by Rules *-*



IS A DONKEY BOILER FITTED? *no*
 HYDRAULIC TESTS:—

-If so, is a report now forwarded?

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	✓	✓	✓	✓	✓
" " COVERS	✓	✓	✓	✓	✓
" " JACKETS	✓	✓	✓	✓	✓
" PISTON WATER PASSAGES	✓	✓	✓	✓	✓
MAIN COMPRESSORS—1st STAGE	✓	✓	✓	✓	✓
" 2nd "	✓	✓	✓	✓	✓
" 3rd "	✓	✓	✓	✓	✓
AIR RECEIVERS—STARTING	✓	✓	✓	✓	✓
" INJECTION	✓	✓	✓	✓	✓
AIR PIPES	✓	✓	✓	✓	✓
FUEL PIPES	✓	✓	✓	✓	✓
FUEL PUMPS	✓	✓	✓	✓	✓
SILENCER	✓	✓	✓	✓	✓
" WATER JACKET	✓	✓	✓	✓	✓
SEPARATE FUEL TANKS	✓	✓	✓	✓	✓

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

SPARE GEAR *One hot bulb; one pair of bottom end frames, 2 pair of bottom end bolts, one gudgeon pin, one pair of gudgeon pin frames, one pair of gudgeon pin bolts, one set of rings, Gears for fuel pump stroke, one air valve, one set of small springs on engine, small quantity of thin sheet steel, muntz metal & tin, 6 Lodge sparking plugs*

FOR AMBLE SHIPBUILDING CO., LTD.,

The foregoing is a correct description,

J. W. Dixon Manufacturer.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits *4*

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller *27.11.25* Stern tube *27.11.25* Engine seatings *27.11.25* Engines holding down bolts *27.11.25*
 Completion of fitting sea connections *27.11.25* Completion of pumping arrangements *4.12.25* Engines tried under working conditions
 Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
 Tube shaft, Material *None* Identification Mark Screw shaft, Material Identification Mark

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

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 vessel's machinery was examined whilst being fitted on board and the materials and workmanship found to be good and in accordance with the rules requirements. On completion it was subjected to trial and found satisfactory. It is therefore eligible in my opinion to be classed with the notation of +LNC 12.25 in the R. Book.*

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

The amount of Entry Fee ... £ : :
see Manchester Rpt 5694
 Special ... £ 3 : 8 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 1 : 11-6 :
 Committee's Minute **FRI. 8 JAN 1926**

Maurice Peterson
 Engineer Surveyor to Lloyd's Register of Shipping.

Assigned *+LNC 12.25. C.L.*
oil engine 8494

