

REPORT ON OIL ENGINE MACHINERY.

No. 80132

20 Feb 1926

Date of writing Report

10

When handed in at Local Office

5th Feb. 26 Port of

Received at London Office

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Amble

Date, First Survey 4th Dec 1925 Last Survey 4th Feb 1926

Number of Visits 83

Single
on the ~~Twin~~ { Screw vessels
Triple

" CALDERGATE

Tons Gross 137.28
Net 55.41

Built at Amble

By whom built Amble LBC & Co Ltd

Yard No. 440 When built 1926

Engines made at Manchester

By whom made L. Gardner & Sons Ltd

Engine No. 26502 When made 1926

Donkey Boilers made at

By whom made

Boiler No. — When made —

Brake Horse Power 140

Owners Anglo American Oil Co Ltd

Port belonging to London

Nom. Horse Power as per Rule 140

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

OIL ENGINES, &c.—Type of Engines Manchester Report No 5711 Gardner 2 or 4 stroke cycle 2 Single or double acting Simple

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 Mid. length thickness Thickness parallel to axis Thickness around eye-hole
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 screw shaft fitted with a continuous liner
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
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
Propeller, dia. Pitch No. of blades 3 Material Cast Steel Whether Moveable No 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
Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps fitted to the Main Engines, No. one Diameter 1 1/4 Stroke 3 Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size Type 1 1/2 Rotter & Pitt Rotary with 2" direct suction How driven Chain drive from 3 1/2 BHP Gardner Engine to Engine room only
Ballast Pumps, No. and size 1 - 1/2 Rotary by Insobell Lubricating Oil Pumps, including Spare Pump, No. and size
Are two independent means arranged for circulating water through the Oil Cooler
Pumps, No. and size:—In Engine and Boiler Room Main Engine pump direct 2" Aux pump direct 2" In Holds, &c. Hand pump 3" for peak
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size As above Rotary pump 2" direct after end of Engine room
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes The 2" & 2 1/2" suction pipe ends perforated Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight laid pipes to the bilges
Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks Cocks also Ballast Valve
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates 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 Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes pass through the bunkers How are they protected
What pipes pass through the deep tanks 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
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
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
Scavenging Air Pumps, No. Diameter Stroke Driven by

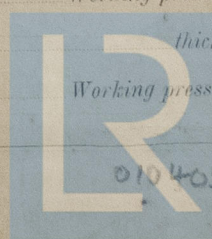
Auxiliary Engines crank shafts, diameter as per Rule as fitted

AIR 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. 3 Total cubic capacity Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules



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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

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 Shifting (If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR / Not full and ignition tube, 1 crank pin bearing & bolts complete, end bearing, gudgeon pin &c complete. piston rings, valves & pump for all purposes. Small spares for main & auxiliary engines

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

1925 Dec. 4. 1926 Jan. 26. Feb. 4.

3.

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 Stern tube Engine sealings 4. 12. 25 Engines holding down bolts 26. 1. 26

Completion of fitting sea connections 26. 1. 26 Completion of pumping arrangements 4. 1. 26 Engines tried under working conditions 4. 1. 26

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

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

Is this machinery duplicate of a previous case yes If so, state name of vessel

Southgate Nov Rpt 199

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

The main and auxiliary machinery reported upon in the Manchester Report has now been efficiently installed on board, tested under full working conditions and is eligible in my opinion for record of + LMC 2. 26

It is submitted that this vessel is eligible for THE RECORD. + LMC 2. 26. Oil Engines. 2 SC. SA. 4 Cy 11½ - 12½. 40 NHP.

Subject to the screw shaft being specially examined at joints of liner before the end of 2. 28.

The amount of Entry Fee ... £ :
Special ... £ 3 : 8

When applied for, 19 FEB. 1926

Donkey Boiler Fee ... £ :

When received,

Travelling Expenses (if any) £ 1 : 12 : 6

1/3/26

Engineer Surveyor to Lloyd's Register of Shipping

24/2/26

Committee's Minute

FRI. 26 FEB 1926

Assigned

+ LMC 2. 26 Subject Oil Engines



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