

## REPORT ON OIL ENGINE MACHINERY

No. 10595<sup>b</sup>

Received at London Office

16 MAY 1927

Writing Report 7 May 1927 When handed in at Local OfficePort of AMSTERDAMSurvey held at AMSTERDAMDate, First Survey 28th June '26 Last Survey 26th May. 1927.Number of Visits 52.7990 on the Twin Screw vessel "A L E T T A"Tons { Gross -  
Net -Built at DUNDEEBy whom built Caledon Shipbuilding Co. Ltd. Yard No. 308 When built 1927Engines made at AmsterdamBy whom made WerkspoorEngine No. - When made 1927Boilers made at AmsterdamBy whom made WerkspoorBoiler No. - When made 1927Indicated Horse Power 1400Owners Anglo-Saxon Petroleum Co. Ltd.

Port belonging to -

Net Horse Power as per Rule 380Is Refrigerating Machinery fitted for cargo purposes ✓Is Electric Light fitted ✓

Trade for which vessel is intended

**ENGINES, &c.**—Type of Engines Werkspoor Diesel engine 4 stroke cycle Single or double acting Single  
 Minimum pressure in cylinders 35 atm Diameter of cylinders 18 1/8 = 465 mm Length of stroke 35 1/2 = 900 mm No. of cylinders 2 x 6 = 12 No. of cranks 6  
 No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 16 3/8 = 415 mm Is there a bearing between each crank ✓  
 Revolutions per minute 150 Flywheel dia. 6' 4" Weight 4200 kg Means of ignition Self-ignition Kind of fuel used Quill oil  
 Crank Shaft, dia. of journals as per Rule 11 1/2" as fitted 11 1/8" Crank pin dia. 11 1/8" Crank Webs Mid. length breadth 23 5/8" Thickness parallel to axis 4 1/8"  
 as fitted 11 1/8" Mid. length thickness 4 1/8" Thickness around eye-hole 5 1/8"  
 Wheel Shaft, diameter as per Rule as per Rule as fitted as fitted Intermediate Shafts, diameter as per Rule as per Rule as fitted as fitted Thrust Shaft, diameter at collars as per Rule as per Rule as fitted as fitted  
 Main Shaft, diameter as per Rule as per Rule as fitted as fitted Is the tube shaft fitted with a continuous liner ✓  
 Bronze Liners, thickness in way of bushes as per Rule as per Rule as fitted as fitted Thickness between bushes as per Rule as per Rule as fitted 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 One length  
 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 Yes  
 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 United States machine Length of Bearing in Stern Bush next to and supporting propeller 21 1/2"  
 Propeller, dia. 9' 6" Pitch 8' 8" No. of blades 3 Material Brass whether Movable ✓ Total Developed Surface 24 sq. feet  
 Method of reversing Engines By air Is a governor or other arrangement fitted to prevent racing of the engine when declutched ✓ Means of lubrication  
forced 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 cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel  
 Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓  
 Large Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 13" Can one be overhauled while the other is at work ✓  
 Pumps connected to the Main Bilge Line { No. and Size three 2 1/2" from main engine, one ballast pump 8' x 8' x 10"  
 How driven ballast pump Steam driven  
 Ballast Pumps, No. and size one 8' x 8' x 10" Lubricating Oil Pumps, including Spare Pump, No. and size 3. (1 connected to engine, one steam driven 6' x 4' x 10", one steam driven 6' x 4' x 10")  
 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 Machinery Spaces 6' 0" 2 1/2"; two after engine 2 1/2"; 2 cofferdam 2 1/2"; 2 forward 2 1/2"  
 Holds, &c. for hold 2' 0" 2 1/2"; forepeak 1' 0" 2 1/2" and 1' 0" 2 1/2"; cofferdam 1' 0" 4" forward; cofferdam 1' 0" 4" aft.  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size two 1' 0" 4" and 1' 0" 4"  
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Spaces  
 from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓  
 Are all Sea Connections fitted direct on the skin of the ship ✓ 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 ✓ 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 ✓ Is the Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ 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. Two No. of stages 3 Diameters 14 3/8 x 15 x 14 3/8 Stroke 13" Driven by main engine  
 Auxiliary Air Compressors, No. One No. of stages 3 Diameters 15 1/4 x 15 1/4 x 4" Stroke 8 5/8" Driven by auxiliary engine  
 Small Auxiliary Air Compressors, No. One No. of stages 3 Diameters 10 1/4 x 10 1/4 x 4" Stroke rev. 3 1/2" Driven by steam  
 Ventilating Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule as per Rule as fitted 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 Steam

Is there a drain arrangement fitted at the lowest part of each receiver ✓

High Pressure Air Receivers, No. 2 Cubic capacity of each 14 cu ft. Internal diameter 18 1/2" thickness 7/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26 to 30 tons Working pressure by Rules 1280 lb.

Starting Air Receivers, No. 2 Total cubic capacity 80 cu ft. Internal diameter 13 1/2" thickness 7/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29 1/4 to 31 tons Working pressure by Rules 565 lb.



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

Receivers

in

London

Separate Tanks

Donkey Boilers

General Pumping Arrangements

in London

Oil Fuel Burning Arrangements

SPARE GEAR

For main and auxiliary

Two top end bolts and nuts; Two bottom end bolts and nuts;  
two main bearing bolts and nuts; 2 sets of coupling bolts; 1 cylinder  
with all valves, valve, seats and springs complete for main and  
auxiliary engines; fuel needle valve for all cylinders; 1 piston  
complete with all piston rings and nuts; one set of piston rings  
for main and auxiliary; 1 complete set of piston rings  
for each piston of the main and auxiliary engines  
1 half set of valves for the main and auxiliary engines  
1 fuel pump complete; a quantity of assorted bolts and nuts  
Length of pipe suitable for various purposes.

Please see further list attached.

The foregoing is a correct description,

WORKSPOOR

Manufacturer.

Dates of Survey while building  
During progress of work in shops - 28/6. 1/7. 13/7. 16/7. 23/7. 29/7. 20/8. 24/8. 10/9. 14/9. 23/9. 15/10. 11/10. 20/10. 23/10. 29/10. 30/10. 11/11. 14/11. 11/11. 19/11. 29/11.  
During erection on board vessel - 6/12. 8/12. 10/12. 14/12. 28/12. 29/12. 26. 4/1. 18/1. 20/1. 24/1. 28/1. 7/2. 8/2. 17/2. 25/2. 28/2. 3/3.  
Total No. of visits 52

Dates of Examination of principal parts - Cylinders 20/8. 28/1. Covers 20/8. 28/1. Pistons 10/9. 28/1. Rods 10/9. 28/1. Connecting rods 10/9. 28/1.  
Crank shaft 24/8. 18/1. Flywheel shaft 14/12. 18/1. Thrust shaft 14/12. 18/1. Intermediate shafts 14/12. 18/1. Tube shaft 14/12. 18/1.  
Screw shaft 6/4. 17. Propeller 6/4. 17. Stern tube 24. 1-24. Engine seatings 10/3. 17. Engines holding down bolts 10/3. 17.  
Completion of fitting sea connections 24-12-26. Completion of pumping arrangements 24/3. 5/4. Engines tried under working conditions 6/5. 27.

Crank shaft, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14. Flywheel shaft, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14.  
Thrust shaft, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14. Intermediate shafts, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14.  
Tube shaft, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14. Screw shaft, Material Steel Identification Mark Lloyd's 1820 H.K. 17. 14.  
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.)

The machinery has been constructed under Special Survey, in accordance with the Rules, Surveyors' Letter and approved plans; workmanship good. The whole has been tested under full working conditions and good.

The amount of Entry Fee ... £ 60.-

Special ... £ 100.-

Donkey Boiler Fee ... £ 60.-

Travelling Expenses (if any) ... £ 60.-

Committee's Minute

Assigned

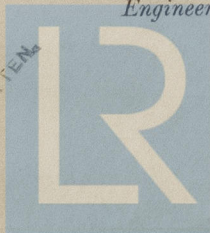
When applied for,

When received,

FRI. 20 MAY 1927

P. W. Bennett

Engineer Surveyor to Lloyd's Register of Shipping



Lloyd's Register Foundation