

REPORT ON OIL ENGINE MACHINERY

No. 10595^b

Received at London Office

16 MAY 1927

Writing Report 7 May 1927 When handed in at Local Office

Port of AMSTERDAM

Survey held at AMSTERDAM

Date, First Survey 28th June '26 Last Survey 26th May 1927

Number of Visits 52

7990 on the Twin Screw vessel "ALETTA"

Tons Gross -
Net -

Built at DUNDEE By whom built Caledon Shipbuilding Co. Ltd. Yard No. 308 When built 1927

Machines made at Amsterdam By whom made Werkspoor Engine No. - When made 1927

Boilers made at Amsterdam By whom made Werkspoor Boiler No. - When made 1927

Indicated Horse Power 1400 Owners Anglo-Saxon Petroleum Co. Ltd. Port belonging to -

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

Trade for which vessel is intended

ENGINES, &c. Type of Engines Werkspoor Diesel Engines 4 stroke cycle Single or double acting

Maximum pressure in cylinders 35 atm Diameter of cylinders 18 1/8 = 460 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 = 50 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 Diesel 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 thickness 4 1/2" shrunk Thickness parallel to axis 4 1/8" Thickness around eye-hole 5 1/8"

Wheel Shaft, diameter as per Rule Approved as fitted 11 1/8" Intermediate Shafts, diameter as per Rule Approved as fitted 8 1/2" Thrust Shaft, diameter at collars as per Rule Approved as fitted 8 1/2"

Propeller Shaft, diameter as per Rule Approved as fitted 11 9/16" Is the shaft fitted with a continuous liner

Brass Liners, thickness in way of bushes as per Rule 25/32" as fitted 25/32" Thickness between bushes as per Rule 25/32" as fitted 25/32" 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

Does the liner 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

When 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 packing Length of Bearing in Stern Bush next to and supporting propeller 2.320 in 59"

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

Exhausting 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 40" 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 (2 connected to main engine, 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 @ 2 1/2"; two after hull 2 1/2"; 2 Cofferdam 2 1/2"; 2 forward 2 1/2"

Holdings, &c. fore hold 2 @ 2 1/2"; fore peak 1 @ 2 1/2" and 1 @ 2 1/2"; Cofferdam 1 @ 4" forward; Cofferdam 1 @ 2" aft.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size two 1 1/2" and 1 1/2"

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

How are they protected Have they been tested as per Rule

Do all pipes pass through the bunkers Do all pipes pass through the deep tanks

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

For 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 Diesel

Small Auxiliary Air Compressors, No. One No. of stages 3 Diameters 100 cub ft Stroke rev 375 Driven by Steam

Leaving Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule Approved as fitted 7 1/4"

TR 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 cub ft Internal diameter 18 1/2" thickness 7/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26500 lb Working pressure by Rules 1280 lb

Starting Air Receivers, No. 2 Total cubic capacity 8000 cub ft Internal diameter 63" thickness 4 1/2"

Seamless, lap welded or riveted longitudinal joint riveted Material Steel Range of tensile strength 29 1/4 lb Working pressure by Rules 365 lb



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *Returned* Receivers *in London* Separate Tanks *Office*
(If not, state date of approval) Secretary's Letter *29/4.11.10/8. 15/12. 17/12. 26.*

Donkey Boilers *Returned* General Pumping Arrangements *in London* Oil Fuel Burning Arrangements *Office*

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 valve for the main and Auxiliary compressors; 1 fuel pump complete; a quantity of assorted bolts and nuts. Length of paper suitable for various purposes.

Please see further list attached.

The foregoing is a correct description,

WERKSPOR

Manufacturer.

Dates of Survey while building	During progress of work in shops --	28/6. 14. 13. 16. 23. 19/8. 20. 24. 10. 14. 23. 15. 11. 20. 23. 29. 30. 11. 14. 5. 11. 19. 29.
	During erection on board vessel --	6/12. 8/12. 19/12. 14/12. 28/12. 29/12. 26. 4. 18. 20. 24. 28. 12. 8. 17. 27. 28. 31.
	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		
Screw shaft	6/4. Propeller	6/4. Stern tube	24. 1-24. Engine seatings	10/3. 17. Engines holding down bolts	10/3.	

Completion of fitting sea connections	24-12-26. Completion of pumping arrangements	24/3-5/4. Engines tried under working conditions	4/5. 27.
Crank shaft, Material	Steel Identification Mark	Lloyd's 1820 H.K. 17. 18. Flywheel shaft, Material	Steel Identification Mark
Thrust shaft, Material	Steel Identification Mark	Lloyd's 1820 H.K. 17. 18. Intermediate shafts, Material	Steel Identification Mark
Tube shaft, Material	Steel Identification Mark	Lloyd's 1820 H.K. 17. 18. Screw shaft, Material	Steel Identification Mark

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

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, Secretary's Letter and approved plans, workmanship good. The whole has been tested under full working conditions and good.

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 ...	£ 60.-	When applied for,	
Special ...	£ 100.80	When received,	2/6/27
Donkey Boiler Fee ...	£ 100.80		
Travelling Expenses (if any)	£ 60.-		

Committee's Minute
Assigned

FRI. 20 MAY 1927

Lloyd's Register of Shipping Foundation