

REPORT ON OIL ENGINE MACHINERY.

No. 3236.

Received at London Office 2 MAY 1930

Date of writing Report **28 April 30** When handed in at Local Office **19** Port of **Stockholm**
 No. in Survey held at **Sickla, Skm. Distr.** Date, First Survey **1 Febr. 1929** Last Survey **7 April 1930.**
 Reg. Book. **Single** Number of Visits **7.**

On the **Single** **Twin** **Triple** **Quadruple** Screw vessel **Danwood** Tons { Gross Net
 Built at **Fredrikstad** By whom built **Fredrikstad Mek. Vaerkst.** Yard No. **80250** When built **1930**
 Engines made at **Stockholm** By whom made **Aktieb. Atlas-Diesel** Engine No. **80250** When made **1930**
 Donkey Boilers made at **Stockholm** By whom made **Aktieb. Atlas-Diesel** Boiler No. **80250** When made **1930**
 Brake Horse Power **100** Owners **A/S Danwood** Port belonging to **Oslo**
 Nom. Horse Power as per Rule **46** Is Refrigerating Machinery fitted for cargo purposes **Is Electric Light fitted**
 Trade for which vessel is intended **Oslo**

II ENGINES, &c. Type of Engines **Stationary Diesel Oil Engine, /type 2H29/** Single or double acting **2 or 4 stroke cycle**
 Maximum pressure in cylinders **35 kg/cm²** Diameter of cylinders **290 mm.** Length of stroke **410 mm.** No. of cylinders **2** No. of cranks **2**
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **984 mm.** Is there a bearing between each crank **no**
 Revolutions per minute **275** Flywheel dia. **1400 mm.** Weight **1185 kg.** Means of ignition **compression** Kind of fuel used **crude oil**
 Crank Shaft, dia. of journals as per Rule **178 mm.** Crank pin dia. **195 mm.** Crank Webs Mid. length breadth **260 mm.** Thickness parallel to axis **110-120 mm.** Thickness around eyehole **110-120 mm.**
 The flywheel is fitted on the crank shaft as fitted
 Flywheel Shaft, diameter as fitted Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as fitted
 Tube Shaft, diameter as fitted Screw Shaft, diameter 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 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
 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 **yes** Means of lubrication
 Thickness of cylinder liners **none fitted** Are the cylinders fitted with safety valves **yes** 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
 Cooling Water Pumps, No. **1** Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Bilge Pumps worked from 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 How driven
 Ballast Pumps, No. and size 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 Machinery Spaces
 In Holds, &c.

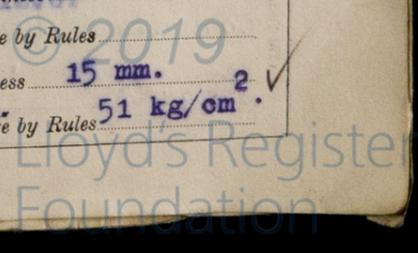
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
 ed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 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
 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. **none fitted** 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
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**
 Are the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **mudhole 120 mm.**
 Is there a drain arrangement fitted at the lowest part of each receiver **yes**
 High Pressure Air Receivers, No. **none fitted** solid injection. Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. **1** Total cubic capacity **100 litres** Internal diameter **340 mm.** thickness **15 mm.** Working pressure by Rules **2 as a min. 51 kg/cm²**
 Seamless, lap welded or riveted longitudinal joint **lapwelded** Material **S.M. Steel** Range of tensile strength **38 kg/mm²** Working pressure by Rules

W194-0068



IS A DONKEY BOILER, FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

E.28.5.25

Receivers 25.10.26

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR as per list, approved on the 4th Febr. 1926, will be inspected, when machinery is being fitted in ship.

The foregoing is a correct description,

Manufacturer.

Dates of Survey of Survey while building
 During progress of work in shops - - 1/2, 18/3, 17/4, 1, 14 & 17/10 1929; 7/4 1930.
 During erection on board vessel - -
 Total No. of visits in shop 7.

Dates of Examination of principal parts—Cylinders with Covers 14&17/29 Pistons 17/10 29 Rods - Connecting rods 1/2, 17/4, 17/10

Crank shaft 18, 1&17 29 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 3 10

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions in shop 14

Crank shaft, Material S.M. Steel Identification Mark LLOYD'S N:o 5723 Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark AI.1.10.29A 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.

Is this machinery duplicate of a previous case yes If so, state name of vessel See Skm. report no. 3175.

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

I am of opinion, that this engine is of superior material and workmanship, and as it has been designed and constructed under special survey, I have respectfully to submit, that it be approved as auxiliary to a classed main engine.

The amount of Entry Fee ... £ : : When applied for,
 Special ... £ 218:40 : : 29.4. 1930
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) * £ 28:00 : : 30.6. 30.
 Total Kroner 246:40.

Committee's Minute FRI, 26 SEP 1930

Assigned

See F.E. Rpt

TUE. 12 MAY 1931

A. Hakson
 Engineer Surveyor to Lloyd's Register of Shipping.
 Revisited by Mr. K. J. Andersson



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