

## 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

Port of Stockholm

No. in Survey held at Sickla, Skm. Distr.

Date, First Survey 1 Febr. 1929 Last Survey 7 April 1930.

Reg. Book.

Number of Vistas 7.

On the ~~Single~~ ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel DanwoodTons { Gross  
Net

Built at Fredrikstad

By whom built Fredrikstad Mek. Vaerkst.

Yard No. When built 1930

Engines made at Stockholm

By whom made Aktieb. Atlas-Diesel

Engine No. 80250 When made 1930

Donkey Boilers made at

By whom made

Boiler No. When made

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

IL ENGINES, &amp;c. Type of Engines Stationary Diesel Oil Engine, /type 2H29/ Single or double acting

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> 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 200 as fitted Crank pin dia. 195 mm. Crank Webs Mid. length breadth 260 mm. Thickness parallel to axis

The flywheel is fitted on the crank shaft as fitted Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as fitted

Flywheel Shaft, diameter 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 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

Pumps 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, &amp;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

Cavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

R 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. 2 ✓

Seamless, lap welded or riveted longitudinal joint lapwelded Material S.M. Steel Range of tensile strength 38 kg/mm<sup>2</sup> as a min. Working pressure by Rules 51 kg/cm<sup>2</sup>

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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 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  
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 AI.1.10.29A 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.

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. Rep

TUE. 12 MAY 1931

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

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