

## REPORT ON OIL ENGINE MACHINERY.

No. 3222

30 APR. 1930

Received at London Office

Date of writing Report 26 April 1930 When handed in at Local Office

19

Port of Stockholm

No. in Survey held at Sjökla Skm. Dist.  
Reg. Book.

Date, First Survey 6 March 1929 Last Survey 16 April 1930

Number of Visits 18

Single  
on the Twin  
Triple  
Quadruple  
Screw vessel JanwoodTons { Gross  
Net

Built at Fredrikstad By whom built Fredrikstad Msk. Verst. Yard No. When built 1930

Engines made at Stockholm By whom made Askel. Alas. Diesel Engine No. 50/24 When made 1930

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 1170 Owners A/S Janwood Port belonging to Oslo

Nom. Horse Power as per Rule 382 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

IL ENGINES, &amp;c.—Type of Engines Polar Diesel Oil Engine (type MP285) 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders 35 kg/cm Diameter of cylinders 420 mm Length of stroke 720 mm No. of cylinders 8 No. of cranks 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 568 mm Is there a bearing between each crank yes

Revolutions per minute 55 Flywheel dia. 1500 mm Weight 2100 kg Means of ignition Diesel Kind of fuel used Trade oil

Crank Shaft, dia. of journals as per Rule 279 mm as fitted 285 Crank pin dia. 285 mm Crank Webs Mid. length breadth 380 mm Thickness parallel to axis shrunk Thickness around eye-hole 226 mm

Flywheel Shaft, diameter as fitted Intermediate Shafts, diameter as per Rule 221 as fitted Thrust Shaft, diameter at collars as per Rule 285 as fitted

Tube Shaft, 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 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 manoeuvring cyls. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Thickness of cylinder liners 48 mm 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. 1 Diameter 130 mm Stroke 220 mm double acting 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 none ordered Lubricating Oil Pumps, including Spare Pump, No. and size (of gear-wheel type) one size 550 litres/minute

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

led 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. 1 No. of stages 3 Diameters 465/330-150/30 Stroke 300 mm for LP and Driven by Main engine 230 mm for the others

Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 340-25/340-30/25 Stroke 200 mm Driven by Electric motor

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 85-30/30 Stroke 125 mm Driven by Alhas engine

Scavenging Air Pumps, No. 1 Diameter 780 mm Stroke 500 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule as fitted

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces mudholes 120 and 200 mm

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

High Pressure Air Receivers, No. 2 Cubic capacity of each 150 and 350 litres Internal diameter 300 &amp; 460 mm thickness 17.5 and 25 mm

Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. Steel Range of tensile strength 38 kg/cm<sup>2</sup> and Working pressure by Rules 70.6 and 70.5 kg/cm<sup>2</sup> resp.

Starting Air Receivers, No. ordered at Fredrikstad Msk. Verst. Total cubic capacity Internal diameter thickness

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

W194-0065

IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for Shafting *See Secretary's letter E 12 15 28*  
(If not, state date of approval)

If so, is a report now forwarded?

Receivers *26 27 5 29*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *as per list approved on the 14 Dec. 1929 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 - *6, 11, 15, 17, 19, 21, 23, 25, 26, 28 & 29 1, 7, 14 & 16 30*  
During erection on board vessel - *in shop 18*  
Total No. of visits *in shop 18*

Dates of Examination of principal parts—Cylinders *23, 20 & 25 30* Covers *23 20 & 25 30* Pistons *23 25 16 20 30* Rods *15 29 25 30* Connecting rods *19 9 1 29*  
Crank shaft *9 29 26 30* Propeller shaft *9 29 26 30* Thrust shaft *11 17 29 25 30* 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 20 30*  
Crank shaft, Material *S. M. Steel* Identification Mark *LLOYD'S N:0 336 E.B. 4.8.29* Propeller shaft, Material *S. M. Steel* Identification Mark *LLOYD'S N:0 335 E.B. 9.8.29*  
Thrust shaft, Material *S. M. Steel* Identification Mark *LLOYD'S N:0 5722 A.L. 17.6.29* 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. 3231.*

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 will be eligible to be classed \*LMC as soon as it has been fitted in a ship to the satisfaction of the Society's Engineer Surveyors.*

The amount of Entry Fee ... £ :  
Special *in shop 1497. 86* :  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ *95. 00* :  
Total *1592. 86*

When applied for, *26 April 1930*  
When received, *30.6.1930*

Committee's Minute *FRI. 26 SEP 1930*

Assigned *See F.E. Rpt*

*A. Bakson*  
Engineer Surveyor to Lloyd's Register of Shipping.  
Assisted by Mr. *R. J. Anderson*

TUE. 12 MAY 1931

