

REPORT ON OIL ENGINE MACHINERY.

No. 3108.

Received at London Office

16 MAY 1929

Date of writing Report 13 May 1929 When handed in at Local Office

Port of Stockholm

Survey held at Sickla, Skm. Distr.

Date, First Survey 4 Aug. 1928

Last Survey 10 May 1929.

Book.

Number of Visits

on the { Single
Twin
Triple
Quadruple } Screw vessel

Tons { Gross
Net }

uilt at Malmö By whom built Kockums Mekaniska Verkstads Yard No. 161 When built

Engines made at Stockholm By whom made Aktieb. Atlas-Diesel Engine No. 85101 When made 1929

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

ake Horse Power 200 Owners Stockholms Rederiaktiebolag Svea Port belonging to Stockholm

om. Horse Power as per Rule 68 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

rade for which vessel is intended

ENGINES, &c.—Type of Engines Stationary Diesel Oil Engine type /K241/ 2 or 4 stroke cycle Single or double acting

rimum pressure in cylinders 35 kg/cm² Diameter of cylinders 250 mm. Length of stroke 420 mm. No. of cylinders 4 No. of cranks 4

an of bearings, adjacent to the Crank, measured from inner edge to inner edge 326 mm. Is there a bearing between each crank yes

olutions per minute 300 Flywheel dia. 1400 mm. Weight 1350 kg. Means of ignition Compression Kind of fuel used Crude Oil

ank Shaft, dia. of journals as per Rule 147 mm. Crank pin dia. 160 mm. Crank Webs Mid. length breadth 214 mm. Thickness parallel to axis —

as fitted 160 " Mid. length thickness 90 " shrunk Thickness around eyehole —

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

as fitted as fitted as fitted Is the { tube { shaft fitted with a continuous liner {

ube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted

ronze 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

opeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

d of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller

ropeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

ethod of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

umps Thickness of cylinder liners 23 mm. Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

on-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

ooling 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

n 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

d 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

That pipes pass through the bunkers How are they protected

That 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

partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

of 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. 2 Diameter 390 mm. Stroke 120 mm. Driven by engine

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 —

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

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

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

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

Starting Air Receivers, No. Same receiver as to engine no. 85099 Total cubic capacity Internal diameter thickness

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

IS A DONKEY BOILER FITTED?
See Secretary's Letter E

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 22 Nov. 1928
(If not, state date of approval)

Receivers 25.5.27

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR to be supplied and 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 - - 4/8, 31/10 28; 7/1, 5/2, 23/3, 10/5 29.
During erection on board vessel - - -
Total No. of visits in shop 6.

Dates of Examination of principal parts—Cylinders 23/3, 10/5 29. Covers 23/3, 10/5 29. Pistons 29.10/5-29. Rods - Connecting rods 7/1, 5/2

Crank shaft 4/8, 31/10-28 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine sealings Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions in shop 2

Crank shaft, Material S.M. Steel

Identification Mark

N: 9 5675

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. -

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel See Skm. report no 3106

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 ... £ :
Special ... kr. 232:00 :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) ... kr. 28:66 :
Total kr. 260:66

When applied for,

19

When received,

19

Committee's Minute

TUE. 3 SEP 1929

Assigned

See Minute on
Malmo Rpt 93,
attached

Acting Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation