

Rpt. 4b.
CEIVED

REPORT ON OIL ENGINE MACHINERY.

No. 17126.

DEC 1949

Date of writing Report 9th Decemb 1949.

Received at London Office

15 DEC 1949

When handed in at Local Office 13th Dec. 1949 Port of

Gothenburg.

No. of Survey held at Kristinehamn

Date, First Survey 9th March

Last Survey 29th November 1949.

Reg. Book.

Number of Visits 8

35245 on the ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ Screw vessel "L I N D E S N Ä S"

Approx.

Tons

Gross 1200

Net 550

Built at Gothenburg

By whom built A-B. Lindholmens Varv

Yard No. 1011

When built 1950

Engines made at Kristinehamn

By whom made A-B. Karlstads Mek. Verkstad

Engine No. 16

When made 1949

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power 900

Owners

Rederi A-B. Nordstjernen

Port belonging to

Stockholm

I.N. Power as per Rule 210

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

General.

IL ENGINES, &c. — Type of Engines Heavy oil eng. Sulzer Brothers. Type 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 360 mm. Length of stroke 600 mm. No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 4.43 kg/cm² Ahead Firing Order in Cylinders 1-6-2-4-3-5 Span of bearings, adjacent to the crank, measured

from inner edge to inner edge 418 mm. Is there a bearing between each crank Yes Revolutions per minute 250

Flywheel dia. 1250 mm. Weight 1305 kg. GD² 1500 Means of ignition Compr. Kind of fuel used Diesel oil

Crank pin dia. 240 mm. Crank webs Mid. length breadth 380 mm. Mid. length thickness 120 mm. Thickness parallel to axis. Thickness around eye-hole.

Intermediate Shafts, diameter as per Rule. Thrust Shaft, diameter at collars as fitted 240-210 mm.

Screw Shaft, diameter as per Rule. 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.

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 tube shaft. If so, state type. 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

Moment of inertia of propeller (lbs. in² or Kg. cm²). Kind of damper, if fitted.

Method of reversing Engines Compr. air Is a governor or other arrangement fitted to prevent racing of the engine. Yes Means of

lubrication. Forced. Thickness of cylinder liners 22.5 mm. Are the cylinders fitted with safety valves. Yes Are the exhaust pipes and silencers water cooled

lagged with non-conducting material. Yes 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 Double Acting at 48 M³/hour. The bilge pump of the same capacity can be used as

reserve pumps worked from the Main Engines, No. 1 D.A. Diameter 120 mm. Stroke 120 mm. Can one be overhauled while the other is at work.

pumps connected to the Main Bilge Line No. and size. How driven.

the cooling water led to the bilges. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements.

last Pumps, No. and size. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 gear pump: 27.5 M³/hour.

two independent means arranged for circulating water through the Oil Cooler. Yes Suctions, connected to both main bilge pumps and auxiliary

pumps, No. and size:—In machinery spaces. In pump room.

holds, &c.

dependent Power Pump Direct Suctions to the engine room bilges, No. and size.

all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. Are the bilge suction 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.

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.

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.

at pipes pass through the bunkers. How are they protected.

at pipes pass through the deep tanks. Have they been tested as per Rule.

all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times.

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.

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.

Air Compressors, No. No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. 2 No. of stages 1 diameters 90 mm. stroke 270.6 mm. driven by Main engine

1 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

provision is made for first charging the air receivers

enging Air Pumps, No. 6. 1 for each cylinder diameter 460 mm. stroke 270.6 mm. driven by Main engine.

Auxiliary Engines crank shafts, diameter as per Rule. No. Position.

the auxiliary engines been constructed under special survey. Is a report sent herewith.

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....
Can the internal surfaces of the receivers be examined and cleaned..... Is a drain fitted at the lowest part of each receiver.....
Injection Air Receivers, No..... Cubic capacity of each..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No..... Total cubic capacity..... Internal diameter..... thickness.....
Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

IS A DONKEY BOILER FITTED..... If so, is a report now forwarded.....
Is the donkey boiler intended to be used for domestic purposes only.....

PLANS. Are approved plans forwarded herewith for shafting..... London 19.11.1947..... Receivers..... Separate fuel tanks.....
(If not, state date of approval).....
Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....
Oil fuel burning arrangements.....
Have Torsional Vibration characteristics been approved..... Yes..... Date of approval..... 30.12.1947.....
SPARE GEAR.
Has the spare gear required by the Rules been supplied..... To be checked on board.....
State the principal additional spare gear supplied.....

The foregoing is a correct description, and the particulars of the installation as fitted are as approved for torsional vibration characteristics.

AKTIEBOLAGET KARLSTADS MEKANISKA VERKSTAD
DIESELMOTORAVDELNINGEN
KARLSTAD

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 9th March - 29th November, 1949.
During erection on board vessel - - -
Total No. of visits 8
Dates of examination of principal parts—Cylinders 11.6.49 Covers 22.9.1949 Pistons 22.9.1949 Rods --- Connecting rods 2.5.19
Crank shaft 9.3.1949 Flywheel shaft --- Thrust shaft --- Intermediate shafts --- Tube shaft ---
Screw shaft --- Propeller --- Stern tube --- Engine seatings --- Engine holding down bolts ---
Completion of fitting sea connections --- Completion of pumping arrangements --- Engines tried under working conditions 29.11.19
Crank shaft, material S.M. Steel Identification mark LLOYD'S 109 SB 23.9.49 Flywheel shaft, material --- Identification mark ---
Thrust shaft, material S.M. Steel Identification mark LLOYD'S 110 SB 23.9.49 Intermediate shafts, material --- Identification marks ---
Tube shaft, material --- Identification mark --- Screw shaft, material --- Identification mark ---
Identification marks on air receivers.....

Welded receivers, state Makers' Name.....
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.....
Description of fire extinguishing apparatus fitted.....
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.....
If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with.....
Is this machinery duplicate of a previous case..... Yes..... If so, state name of vessel M/T "Framnäs", A-B. Lindholmens Varv Yard No. 1010.

General Remarks (State quality of workmanship, opinions as to class, &c.)
This main engine has been built under special survey in accordance with the Rules and approved plan
The workmanship and materials are good and test sheet in respect of the crank- and thrust shafts are attached.
A notice board has been fitted at the control station stating that the engine is not to be run continuously between 90 and 110 revolutions per minute.
The engine has been examined under full working conditions on the test bed and found satisfactory, is eligible, in my opinion, to be classed +LMC with date when securely fitted in the vessel to the surveyors' satisfaction.

The amount of Entry Fee ... £ --- : --- :
Special ... Kr. 1010:00 :
Donkey Boiler Fee... £ --- : --- :
Travelling Expenses (if any) Kr. 99:75 :
When applied for 13th Dec. 1949.
When received 19 --

Committee's Minute

Assigned

Anders Sjögren
Engineer Surveyor to Lloyd's Register of Shipping
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