

REPORT ON OIL ENGINE MACHINERY.

No. 16905.

7 SEP 1949

Received at London Office

Writing Report August 1949. When handed in at Local Office 5th Sept. 1949. Port of GOTHENBURG.

Survey held at Date, First Survey 22/4 Last Survey 17/8 19 49.
Number of Visits
on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel. Kalmar Yard No. 364 M.S. LUCIANO CASTRO. Approx. Tons Gross 600 Net 330
Kalmar By whom built Kalmar Varv Yard No. 364 When built -
made at Trollhättan By whom made Nydqvist & Holm A.-B. Engine No. 1288 When made -
Boilers made at - By whom made - Boiler No. - When made -
Horse Power 510 ✓ Owners Ångbåts A.-B. Kalmarsund Port belonging to Kalmar
Power as per Rule 136 ✓ Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted Yes.
for which vessel is intended General.

ENGINES, &c. — Type of Engines Heavy Oil, trunk engine 2 or 4 stroke cycle 2 SC Single or double acting SA
Mean pressure in cylinders 45 kg/cm² Diameter of cylinders 9 13/16" 9.3/16" 16.9/16" No. of cylinders 8 No. of cranks 8
Indicated Pressure 5.4 kg/cm² Ahead Firing Order in Cylinders 1-8-2-6-4-5-3-7 Span of bearings, adjacent to the crank, measured
inner edge to inner edge 350 mm. ✓ Is there a bearing between each crank Yes ✓ Revolutions per minute 325 ✓
Wheel dia. 900 mm. Weight 260 kgms Moment of inertia of flywheel (lbs. in² or Kg.cm.²) 344 Means of ignition Comp. Kind of fuel used Diesel
Solid forged dia. of journals approved 160 mm. ✓ Crank pin dia. 160 mm. ✓ Crank webs Mid. length breadth 230 mm. ✓ Thickness parallel to axis
as fitted 160 mm. ✓ Mid. length thickness 86 mm. ✓ Thickness around eyehole
Wheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collar as fitted 140 mm. ✓ 142 @ Coll.
as fitted - Approved 145 mm. ✓ Is the (screw) shaft fitted with a continuous liner No. ✓
Shaft, diameter as per Rule - Screw Shaft, diameter as fitted 145 mm. ✓
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
lower 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-
sive - 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
tube shaft Yes ✓ If so, state type Cedervall's Oil Gland Length of bearing in Stern Bush next to and supporting propeller 780 mm. ✓
Propeller, dia. 1900 mm Pitch 1170 mm No. of blades 3 Material Cast steel Whether moveable - Total developed surface 1.35 sq. met. ✓
Moment of inertia of propeller (lbs. in² or Kg.cm.²) 1140 Kind of damper, if fitted -
Method of reversing Engines Comp. air Is a governor or other arrangement fitted to prevent racing of the engine when dechecked Yes ✓ Means of
operation Forced Thickness of cylinder liners 22 mm. Are the cylinders fitted with safety valves Yes ✓ Are the exhaust pipes and silencers water cooled
lined with non-conducting material Lagged ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
to the engine - Cooling Water Pumps, No. 1 x 320 lit/m. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Pumps worked from the Main Engines, No. 1 Diameter 100 Stroke 70 Can one be overhauled while the other is at work -
Pumps connected to the Main Bilge Line No. and size - How driven -
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 -
Oil Pumps, No. and size - Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 x 80 lit/min.
Two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary
pumps, No. and size:—In machinery spaces. In pump room.
Holds, &c.
Independent 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.
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.
Do pipes pass through the bunkers. How are they protected.
Do 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. Is it 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. 1 No. of stages 2 diameters 60/150 mm. stroke 160 mm. driven by the Main engine.
Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
All Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
Is provision made for first charging the air receivers. -
Recharging Air Pumps, No. 1 (Double acting) CRANK TYPE. diameter 610 mm. stroke 420 mm. driven by Main engine
Auxiliary Engines crank shafts, diameter as per Rule - No. - Position -
Have the auxiliary engines been constructed under special survey. - Is a report sent herewith.

014835-014842-0278

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AIR RECEIVERS:—Have they been made under survey..... Yes ✓ State No. of ~~report~~ certificate..... 6640-6641

Is each receiver, which can be isolated, fitted with a safety valve as per Rule..... Fusible plug.

Can the internal surfaces of the receivers be examined and cleaned..... Yes. ✓ Is a drain fitted at the lowest part of each receiver..... Yes. ✓

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..... 2 ✓ Total cubic capacity..... 2 x 400 lit. Internal diameter..... 480 mm. thickness..... 11 mm.

Seamless, welded or riveted longitudinal joint..... E.W. Material..... S.M. Steel Range of tensile strength..... 41-47 kg/cm² appd. by Rules.....

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..... 22-12-48 Receivers..... 22-12-48 Separate fuel tank.....

Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....

Oil fuel burning arrangements.....

Have Torsional Vibration characteristics been approved..... Yes. ✓ Date of approval..... 22.12.48. for 1325 r.p.m.

SPARE GEAR.

Has the spare gear required by the Rules been supplied..... Yes. 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.

Manufacturer. NYDQVIST & HOLM AKTIEBOLAG

Konstruktionskontoret

O.V. Fixén

Dates of Survey while building During progress of work in shops..... 22/4/49 - 17/8/49.

During erection on board vessel.....

Total No. of visits..... 7

Dates of examination of principal parts—Cylinders..... 22.4.49. Covers..... 22.4.49. Pistons..... 18.5.49. Rods..... Connecting rods.....

Crank shaft..... 29.4.49. Flywheel shaft..... Thrust shaft..... 27.7.49. Intermediate shafts..... Tube shaft.....

Screw shaft..... 1-7-49. Propeller..... Stern tube..... 1.7.49. Engine seatings..... Engine holding down bolts.....

Completion of fitting sea connections..... Completion of pumping arrangements..... Engines tried under working conditions..... 11.8.

Crank shaft, material..... El. steel Identification mark..... Lloyd's No. 7328 OS 29.4.49. Flywheel shaft, material..... Identification mark.....

Thrust shaft, material..... El. steel Identification mark..... Lloyd's No. 853 OS 27.7.49. Intermediate shafts, material..... Identification marks.....

Tube shaft, material..... Identification mark..... Screw shaft, material..... El. steel Identification mark..... Lloyd's No. GA 1.7.49

Identification marks on air receivers..... Nos. 7224 - 7225 LLOYDS TEST 42 kgs. WP 25 kgs. HA 4.4.49.

Welded receivers, state Makers' Name..... Messrs. Avesta Jernverks A.-B., Avesta.

Is the flash point of the oil to be used over 150°F..... Yes.

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.s. "FENJA", Got.rpt No. 16561.

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

This machinery has been built under Special Survey in accordance with the Rules and approved and off

The workmanship and materials used are good and test sheets in respect of shafting and air receivers are attached. all te

A notice board has been fitted at the control station stating that the engine is not to be run continuously between shielded

120 and 145 r/m. ✓ condition

The engine has been examined under full working power and in the shop and found in order and

is eligible, in my opinion, to be classed +LMC with date when it has been securely fitted on board the vessel to the

Surveyor's satisfaction.

The amount of Entry Fee ... £ ... : ...

Special ... Kr. 650:00 : When applied for 5th Sept. 19 49.

Donkey Boiler Fee... £ ... : ... When received ... 19 ...

Travelling Expenses (if any) Kr. 53:75 :

(Committee's Minute

Assigned

FRI 12 MAY 1950

See minute on p. 10.

Engineer Surveyor to Lloyd's Register of Ships

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