

RECEIVED

REPORT ON OIL ENGINE MACHINERY.

No. 16748.

4 JUL 1949

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Report of written Report 14th June 1949. When handed in at Local Office 27th June 1949. Port of Gothenburg.
IN D.O.
Survey held at Gothenburg Date, First Survey 24th Sept. 1948 Last Survey 10th February 1949.
Number of Visits 7

Single
on the Twin
Triple
Quadruple
Screw vessel
By whom built
Yard No. When built
By whom made
Engine No. 1243 When made 1949
By whom made
Boiler No. When made
Owners Stockholms Rederi A-B. Svea Port belonging to Stockholm
Gross Tons
Net Tons
Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

ENGINES &c. — Type of Engines Heavy oil, trunk type 2 or 4 stroke cycle 2 Single or double acting Single
(13.19/32") (22.27/32")
Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 345 mm Length of stroke 580 mm No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 6.2 kg/mm² 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 504 mm Is there a bearing between each crank Yes Revolutions per minute 260
Flywheel dia. Weight Moment of inertia of flywheel (16lbs. in² or Kg.cm.²) Means of ignition Compr. Kind of fuel used Diesel oil
Crank pin dia. 230 mm Crank webs Mid. length breadth 310.0 mm Thickness parallel to axis
Thrust Shaft, diameter at collars as fitted
Intermediate Shafts, diameter as fitted
Screw Shaft, diameter as fitted
Is the tube screw shaft fitted with a continuous liner
Is the after end of the liner made watertight in the

Method of reversing Engines Compr. air Is a governor or other arrangement fitted to prevent racing of the engine
Lubrication Forced Thickness of cylinder liners 27.5 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. 1x500 litres per minute Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps worked from the Main Engines, No. 1x500 l/m. Diameter 150 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
Is 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
Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 x 275 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 pump room
In 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 suction pipes 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 they fixed
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

STARTING
Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 5/210 mm. stroke 250 mm. driven by Main engine
Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
What provision is made for first charging the air receivers
Scavenging Air Pumps, No. 1 (Double Acting) diameter 735 mm. stroke 580 mm. driven by the engine
Auxiliary Engines crank shafts, diameter as fitted Position
Have the auxiliary engines been constructed under special survey Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey. Yes State No. of ~~XXXXXX~~ certificate 6294 - 6295

Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug. Safety valves on the compressor.

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 1600 litres Internal diameter 750 mm. thickness 15 mm.

Seamless, welded or riveted longitudinal joint El. welded Material S.M. Steel Range of tensile strength 43.1-44.1 kg/mm² Working pressure Actual 25 kg/cm²

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 7.5.1948 Receivers 7.5.1948 Separate fuel tanks ---

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

Oil fuel burning arrangements ---

Have Torsional Vibration characteristics been approved. No Date of approval ---

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.

HYDQUIST & HÖLDT, TROTELAG

Kanslihuset, Stockholm

A. Keller

Manufacturer.

Dates of Survey while building During progress of work in shops - 24th September, 1948 - 10th February, 1949.

Total No. of visits 7

Dates of examination of principal parts—Cylinders 24.9.1948 Covers 24.9.1948 Pistons 19.10.1948 Rods --- Connecting rods 19.10.1948

Crank shaft 24.9.1948 Flywheel shaft --- Thrust shaft --- Intermediate shafts --- Tube shaft ---

Screw shaft --- Propeller --- Stern tube --- Engine seatings --- Engine holding down bolts ---

Method of joining sea connections Completion of dynamometer arrangements --- Engines tried under working conditions 16.12.1948

Crank shaft material S.M. Steel Identification mark LL.No. 1390 HL 19.8.48 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 ---

Identification marks on air receivers Nos. 2653 - 2654 LLOYD'S TEST 42 KGS. WP 25 KGS. SW 12.11.48

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

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 --- If so, state name of vessel ---

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 plans.

The workmanship and the material used are good and test sheets in respect of the crank shaft and air receivers are attached.

The engine has been tried under full working power conditions in the shop and found to work satisfactorily and is eligible, in my opinion, to be classed +LMC with date when securely fitted on board the vessel under inspection and to the satisfaction of the Society's surveyors, subject to the torsional vibration characteristics of the complete dynamic system formed by the engine, line shafting and propeller being approved.

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