

REPORT ON OIL ENGINE MACHINERY

No. 4203

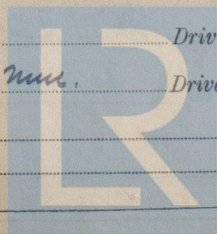
29 APR 1936

5 AUG 1936

Received at London Office

Date of writing Report April 23rd 1936 When handed in at Local Office 10 Port of Stockholm
 No. in Survey held at Lickla, Lhm. Distr. Date, First Survey 11.5.32 Last Survey 30.3 1936
 Reg. Book. Single on the Twin Triple Quadruple Screw vessel "JOLLY GIRLS" Tons { Gross 483 Net 260.
 Built at Smith's Dock Co. (LD) By whom built Smith's Dock Co. (LD) Yard No. 995 When built 1936
 Engines made at Stockholm By whom made A. B. Atlas-Diesel Engine No. 85234 When made 1936
 Donkey Boilers made at Stockholm By whom made A. B. Atlas-Diesel Boiler No. — When made —
 Brake Horse Power 500 Owners F. W. Horlock Port belonging to Harwich
 Nom. Horse Power as per Rule 125 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended Coasting

OIL ENGINES, &c. Type of Engines Polar Diesel Oil Engine Type M44M 2 or 4 stroke cycle Single or double acting
 Maximum pressure in cylinders 55.0 kg/cm² 13 3/8" Diameter of cylinders 340 mm Length of stroke 22 7/8" 570 mm No. of cylinders 4 No. of cranks 4
 Mean Indicated Pressure 6.7 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 mm Is there a bearing between each crank Yes
 Revolutions per minute 220 Flywheel dia. 1550 mm Weight 1900 kgs Means of ignition Compression Kind of fuel used Crude oil
 Crank Shaft, dia. of journals as per Rule 220 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 308 mm Thickness parallel to axis —
which is fitted on the thrust shaft Mid. length thickness 122 " Thickness around eye hole —
 Flywheel Shaft, diameter as per Rule 220 mm Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule 220 mm
 Tube Shaft, diameter as per Rule 220 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 per Rule 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 —
 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
 Method of reversing Engines by compressed air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication —
pumps 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. One 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 90 mm Stroke 140 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 — }
 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 —
 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 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 2 Diameters 175/70 mm Stroke 350 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 —
 Scavenging Air Pumps, No. 1 Diameter 770 mm Stroke 350 mm Driven by Main engine
 Auxiliary Engines crank shafts, diameter as per Rule — as fitted —



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AIR 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 and cleaned.

Is a drain fitted at the lowest part of each receiver

High Pressure Air Receivers, No. *None fitted*

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. *2*

Total cubic capacity *1600 litres*

Internal diameter *650 mm.*

thickness *14 mm.*

Seamless, lap welded or riveted longitudinal joint *riveted*

Material *L.M. Steel*

Range of tensile strength *41,144 kg/cm²*

Working pressure

by Rules

Actual *25.3 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. *See Secretary's letter 24.1.36*

Receivers *6.8.30*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

As per attached lists. The spare gear has been examined

State the principal additional spare gear supplied

before it was despatched.

Note: The additional water circulating pumps will be delivered by the ship builder. 2 lubricating oil pumps fitted.

The foregoing is a correct description,

AKTIEBOLAGET ATLAS DIESEL

C. Jacobsson

Manufacturer.

Dates of Survey while building
During progress of work in shops-- *11.16.10 1932; 28.9.12 1935; 16.24.12 1936*
During erection on board vessel--
Total No. of visits *in shop 15*

Dates of Examination of principal parts—Cylinders *12.5.36* Covers *12.5.36* Pistons *5.36* Rods — Connecting rods *28.12.35*
Crank shaft *16.12.35* Flywheel shaft *9.20.35* Thrust shaft *11.22.35* 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 25.2.36*

Crank shaft, Material *L.M. Steel*

Identification Mark *LLOYD'S 10.11.32*

Flywheel shaft, Material *L.M. Steel*

Identification Mark *LLOYD'S 12.5.32*

Thrust shaft, Material —

Identification Mark *LLOYD'S 12.12.35*

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

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 *see Item. report 4183*

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 into a classed vessel to the satisfaction of the Society's Surveyors.

This machinery securely fitted aboard & tested under working conditions (see Separate Report).

*M. Ma
Thab. 1.8.36*

The amount of Entry Fee .. £ *485.00* : When applied for, *19*
Special Survey in ship .. £ : :
Donkey Boiler Fee .. £ : : When received, *23-6-1936*
Travelling Expenses (if any) .. £ *2.75* : :
Committee's Minute *TUE. 1 SEP 1936*

Assigned

See Indb. 28 15767

Engine Surveyor to Lloyd's Register of Shipping.



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