

REPORT ON OIL ENGINE MACHINERY.

No. 4983

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Reg. Book. Number of Visits 19

on the Single Screw vessel "BEYERLAND" Tons Gross
Triple NOTE: Engines to be installed at Messrs. Boole's Scheepswaeruw en Net
Quadruple Marine Fabriek, Rotterdam.
built at Rotterdam By whom built Mander Giessen & Zonen Scheepsw. N.V. Yard No. 85696 When built 1939
Engines made at Stockholm By whom made A.B. Atlas-Diesel Engine No. 1939
Monkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
Indicated Horse Power 640 Owners Shipping & Coal Co. Port belonging to Rotterdam
Nominal Horse Power as per Rule 125 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____
Trade for which vessel is intended _____

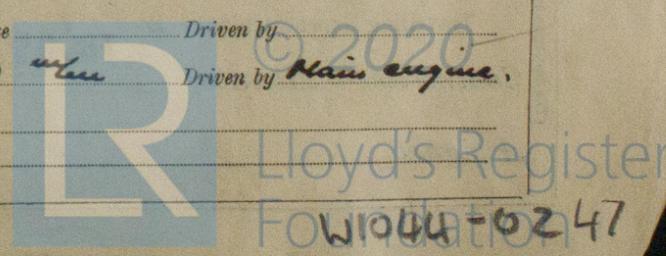
ENGINES, &c.—Type of Engines Polar Diesel Oil Engine, type M44M 2 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 55 kg/cm² 13.78 Diameter of cylinders 340 mm Length of stroke 570 mm No. of cylinders 4 No. of cranks 4
Indicated Pressure 7 _____ Is there a bearing between each crank Yes
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 mm
Revolutions per minute 250 Flywheel dia. 1550 mm Weight 1900 kg Means of ignition Compression Kind of fuel used Marine Diesel Oil
Crank Shaft, dia. of journals as per Rule 235 mm Crank pin dia. 235 mm Crank Webs Mid. length breadth 346.3 mm Thickness parallel to axis shrunk
as fitted 235 mm Mid. length thickness 122 mm Thickness around eye-hole _____
as fitted _____

as per Rule _____ as per Rule _____ as per Rule _____
as fitted _____ as fitted _____ as fitted _____
Is the { tube } shaft fitted with a continuous liner { _____
 { screw }
Liner thickness in way of bushes as per Rule _____ Thickness between bushes as per Rule _____
as fitted _____ as fitted _____ Is the after end of the liner made watertight in the
stern 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 so, state type _____ Is an approved Oil Gland or other appliance fitted at the after end of the tube _____
Length of Bearing in Stern Bush next to and supporting propeller _____
If so, state type _____

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 _____
Thickens of cylinder liners 25.5 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water-cooled or lagged with
insulating 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 _____
Suction Water Pumps, No. One 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 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 _____
If 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, each 235 ltr/min
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 _____
Pumps, &c. _____
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size _____
Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes _____ Are the Bilge Suctions in the Machinery Spaces
easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges _____
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 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 _____
How are they protected _____
Are pipes pass through the bunkers _____ Have they been tested as per Rule _____
Are pipes pass through the deep tanks _____
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____
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 _____

Oil vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork _____
Starting air _____
Air Compressors, No. One No. of stages 2 Diameters 175/70 mm Stroke 350 mm Driven by Main engine
Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 95/40 mm Stroke 125 mm Driven by Electric motor
Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
Suctioning Air Pumps, No. One O.P. Diameter 770 mm Stroke 350 mm Driven by Main engine
Main Engines crank shafts, diameter as per Rule _____
as fitted _____



AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.
 Can the internal surfaces of the receivers be examined and cleaned Yes. Is a drain fitted at the lowest part of each receiver Yes.
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 _____
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 S.H. Steel Range of tensile strength 41-44 kg/mm² Working pressure _____
 by Rules _____ 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 E. 24, 23, 36, 30, 37 Receivers E. 6, 38 Separate Tanks _____
 (If not, state date of approval) 1/12/39 _____
 Donkey Boilers _____ General Pumping Arrangements _____ Oil Fuel Burning Arrangements _____

SPARE GEAR.

Has the spare gear required by the Rules been supplied } As per enclosed list. The spare gear has
 State the principal additional spare gear supplied } been examined before it was despatched
A Jolly fuel supply pump (type J mo), electrically driven,
100 litres/min. delivered.
The additional water circulating pump will be delivered
by the Ship Builders.

The foregoing is a correct description,
AKTIEBOLAGET ATLAS DIESEL
G. Jacobsson Manufacturer.

Dates of Survey while building { During progress of work in shops - - 19. 7. 15. 23 1937, 18. 2. 25. 17. 1. 16 1938; 24. 14. 17. 29. 21. 3. 22. 28. 31 39.
 { During erection on board vessel - - _____
 Total No. of visits 19 in shop.

Dates of Examination of principal parts—Cylinders 28-8-39 Covers 28-8-39 Pistons 28-8-39 Rods _____ Connecting rods 19. 7. 37
 Crank shaft 24. 17. 28 39 Seav. air pump Flywheel shaft 15. 23 37; 28 39 Thrust shaft 18. 2 38; 28 39 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 22/8/39
 Crank shaft, Material S.H. Steel. Identification Mark LLOYDS N° 8624 Seav. air pump Flywheel shaft, Material S.H. Steel. Identification Mark LLOYDS N° 8
 Thrust shaft, Material S.H. Steel. Identification Mark F.C. 17-3-39 Intermediate shafts, Material _____ Identification Marks F.C. 23-12
 Tube shaft, Material _____ Identification Mark LLOYDS N° 8296 Screw shaft, Material _____ Identification Mark F.C. 2-2-38

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 Yes. If so, state name of vessel Please see Skw. Rpt. N° 49

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 respectfully submit that it be classed +LHC, as soon as it has been installed in "Beyerland" to the satisfaction of the Society's Surveyors.

The amount of Entry Fee .. £ : : _____
 Special ... £ 400.- When applied for, 11. 10 19 39.
 Donkey Boiler Fee ... £ : : _____ When received, _____
 Travelling Expenses (if any) £ : : 20. 12 19 39

Folke Cassel.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute _____
 Assigned See Rot. 76 286 39

Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

