

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 11421  
SEP - 6 1937

Received at London Office

Date of writing Report 2nd Sept. 37 When handed in at Local Office 4th Sept. 1937 Port of Gathrenburg  
 No. in Survey held at Trollhattan Date, First Survey 29th June Last Survey 1st Sept. 1937  
 Reg. Book. 20578 on the Single Triple Quadruple Screw vessel "ASHANTI" Number of Visits 6

Built at Goole By whom built Goole S.B. & Repg. Co. Ltd. Yard No. When built 1936  
 Engines made at TROLLHATTAN By whom made NYDQVIST & HOLM A.B. Engine No. 1056 When made 1937  
 Donkey Boilers made at By whom made Boiler No. When made  
 Brake Horse Power 400 Owners T.E. EVANS & Co. Ltd. Port belonging to LONDON  
 Nom. Horse Power as per Rule 102 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
 Trade for which vessel is intended GENERAL

L ENGINES, &c. Type of Engines One diesel oil engine 2 or 4 stroke cycle 2 Single or double acting single  
 Maximum pressure in cylinders 42 kg/cm<sup>2</sup> Diameter of cylinders 250 mm Length of stroke 420 mm No. of cylinders 6 No. of cranks 6  
 Mean Indicated Pressure 5.5 kg/cm<sup>2</sup> Flywheel dia. 1150 mm Weight 1225 kg Means of ignition Diesel system Kind of fuel used Diesel fuel oil  
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 374 mm Is there a bearing between each crank Yes  
 Revolutions per minute 335 Crank pin dia. 160 mm Crank Webs Mid. length breadth 230 mm Thickness parallel to axis  
 Crank Shaft, dia. of journals as per Rule 160 mm as fitted 160 mm Mid. length thickness 86 mm Thickness around eyehole  
 Flywheel Shaft, diameter as per Rule 160 mm as fitted Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule 120 mm as fitted 120 mm

Propeller Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner  
 Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule 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  
 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  
 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 Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
 Thickness of cylinder liners 22 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. 11 tons/hour as stand by cooling 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 100 mm Stroke 70 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 Two 675 mm each  
 Are two independent means arranged for circulating water through the Oil Cooler Yes 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. One No. of stages 2 Diameters 150/60 mm Stroke 70 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. One, double acting Diameter 520 mm Stroke 420 mm Driven by Main engine  
 Auxiliary Engines crank shafts, diameter as per Rule as fitted Ne. Position

N1176-0149



**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *Old receivers on board to be used.*

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.** Cubic capacity of each Internal diameter thickness  
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

**Starting Air Receivers, No.** Total cubic capacity Internal diameter thickness  
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

**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 *21.6.37* Receivers Separate Fuel Tanks  
(If not, state date of approval)

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

### SPARE GEAR.

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

State the principal additional spare gear supplied *1 cylinder liner; 1 gudgeon pin bearing bush,  
1 crank pin bearing, 1 set of thrust pads for the thrust bearing.  
A assortment of springs & packings.*

The foregoing is a correct description,

**NYDQVIST & HOLM AKTIEBOLAG**  
GUNNAR DELLNER

*Osar Draus.*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1937: June 29 July 12, 20 Aug. 18, 23 Sept. 1. = 6 visits.  
During erection on board vessel - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders *12.20/7* Covers *12/7* Pistons *29/6* Rods ✓ Connecting rods *29/6*  
Crank shaft *29/6* Flywheel shaft ✓ Thrust shaft *1/9* 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 *23/8*  
Crank shaft, Material *S. 17 Steel* Identification Mark *440Y03 28.3.30* Flywheel shaft, Material ✓ Identification Mark ✓  
Thrust shaft, Material *S. 17 Steel* Identification Mark *440Y03 1320 28.3.37* 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. *Yes.*

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 *No* 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 & approved plans.*

*The workmanship is good.*

*The cranks & thrust shafts as per forging reports attached. So complete survey. The machinery to be fitted and the installation completed to the Surveyors satisfaction. Spare gear to be checked on board. The engine has been despatched to Rotterdam for installation onboard.*

*This machinery is eligible in my opinion to be classed in the Register Book with notation of + NE made 9.37 refitted with date when the survey has been completed.*

The amount of Entry Fee .. £ : : When applied for,  
Special ... *£. 387.60* : *4/9* 1937  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) *£. 66.60* : *28.9* 1937 *26/10*

*E. Bosvelius*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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