

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 1267.  
27 NOV 1930  
24 MAY 1930

Date of writing Report 6<sup>th</sup> May 1930 When handed in at Local Office 9<sup>th</sup> May 1930 Port of Bremen

No. in Survey held at Augsburg Date, First Survey 25<sup>th</sup> November 1929 Last Survey 6<sup>th</sup> May 1930  
Reg. Book. Number of Visits 52

on the Single Twin Triple Quadruple Screw vessel **KOTA AGOENG**

Tons { Gross  
Net

Built at Rotterdam By whom built Mess. Maats. Fyenoord Yard No. 317 When built 1929/30  
Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Königsberg Engine No. 330320 When made 1929/30  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 2750 Owners Rotterdamsche Lloyd Port belonging to Rotterdam  
Nom. Horse Power as per Rule 738 x 2 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended

**L ENGINES, &c.**—Type of Engines 55252/30 2 or 4 stroke cycle 2 Single or double acting double  
Maximum pressure in cylinders 35 atm Diameter of cylinders 520 mm Length of stroke 700 mm No. of cylinders 5 x 2 No. of cranks 5 x 2  
Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 730 mm Is there a bearing between each crank yes  
Revolutions per minute 215 Flywheel dia. Weight Means of ignition spark air injection Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted 350 mm Crank pin dia. 350 mm Crank Webs Mid. length breadth 490 mm Thickness parallel to axis shrunk  
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 412 Thrust Shaft, diameter at collars as per Rule as fitted  
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube { 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. 5790 Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet  
Method of reversing Engines directly coupled air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication  
forced Thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material air space + lagged 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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
Large Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size  
How driven  
Discharge Pumps, No. and size 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  
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  
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  
Do all pipes pass through the bunkers How are they protected  
Do all pipes pass through the deep tanks Have they been tested as per Rule

Do 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 on 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 3 Diameters 580/515/120 mm Stroke Driven by main crank shaft  
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Exhausting Air Pumps, No. 1 double acting Diameter 1080 mm Stroke 550 mm Driven by main crank shaft

Auxiliary Engines crank shafts, diameter as per Rule as fitted  
**RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule  
Are the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces  
Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness  
Are they seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules  
Working Air Receivers, No. Total cubic capacity Internal diameter thickness  
Are they seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *yes* *E 26.6.29*  
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *as per Rules*

The foregoing is a correct description,

*Maschinenfabrik Augsburg-Nürnberg A.G.*

*Anders & Albrecht*

Manufacturer.

Dates of Survey while building { During progress of work in shops - *25.26.30 Nov; 13.19.23 Dec; 1.10.20.21.22.24.25 Jan 20; 1.7.8.10.13.14.15.21.22 Feb; 4.5.6.7.15.17.21.22.24.26 March; 2.3.4.5.10.11.12.14.15.16.17.26.28.29.30 April; 1.2.3.5.6 May 1930*  
During erection on board vessel - - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders *6.8.30* Covers *2.3.30* Pistons *20.4.30* Rods *7.2.30* Connecting rods *5.3.30*

Crank shaft *25.1.30* Flywheel shaft Thrust shaft 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

Crank shaft, Material *S. M. Steel* Identification Mark *3706-3034.3.15.10.29* Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark *Scav. + comp. thrust* Intermediate shafts, Material *S. M. Steel* Identification Marks *2508.4.11.17.10.29*

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

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 heavy oil engine has been constructed under Special*

*Survey in accordance with the approved plans and instructions thereto, as well as with the Rules and Regulations.*

*The materials used in the construction are good and the workmanship is satisfactory. The engine has been started on the makers test bed and was found working satisfactorily.*

*In my opinion the vessel for which the engine is intended will be eligible for the notation of  $\oplus$  LMC (with date), provided it will be satisfactory fitted on board of the vessel and tested under full working conditions.*

*A copy of this report has been sent to the Rotterdam Surveyors*

Certificate (if required) to be sent to

The amount of Entry Fee ... £ *4 : 16* : When applied for, *22.5.1930*  
*4/5* Special ... £ *89 : 12* :  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ *1 : 12* : *24.6.1930*

Committee's Minute *TUE. 4 NOV 1930*

Assigned *See F. E. Rep.*

Engineer Surveyor to Lloyd's Register of Shipping.



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