

pt. 4b

# REPORT ON OIL ENGINE MACHINERY.

No. 18166

Received at London Office 11 FEB 1929

Date of writing Report 25-1-1929 When handed in at Local Office 19

Port of Rotterdam

Survey held at Flushing

Date, First Survey 23.5.1927 Last Survey 28.1.1929

Number of Visits 50

on the Motor Screw vessel "KOTA BAROE"

Tons Gross 7213.90  
Net 4533.15

built at Flushing By whom built Hon Mr. De Schelde Yard No. 108 When built 1924  
 engines made at Flushing By whom made Hon Mr. De Schelde Engine No. 389 When made 1924  
 boiler made at Flushing By whom made Hon Mr. De Schelde Boiler No. 995 When made 1928  
 make Horse Power 1150 Owners Rotterdamse Lloyd Port belonging to Rotterdam  
 m. Horse Power as per Rule 1150 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 made for which vessel is intended \*\*\*

ENGINES, &c. Type of Engines Two stroke cycle single acting Diesel or 4 stroke cycle 2 Single or double acting Single  
 maximum pressure in cylinders 39 kg/cm<sup>2</sup> Diameter of cylinders 460 mm Length of stroke 184 mm No. of cylinders 8 No. of cranks 8  
 No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 1960 mm Is there a bearing between each crank Yes  
 revolutions per minute 90 Flywheel dia. 2200 mm Weight 5400 kg Means of ignition Compression Kind of fuel used Diesel Oil  
 Crank Shaft, dia. of journals 520 mm Crank pin dia. 520 mm Crank Webs Mid. length breadth 910 mm Thickness parallel to axis 170 mm  
 as fitted 520 mm as per Rule 520 mm Mid. length thickness 355 mm Thickness around eye hole ✓  
 Wheel Shaft, diameter 520 mm Intermediate Shafts, diameter 415 mm Thrust Shaft, diameter at collars 410 mm  
 as fitted 520 mm as per Rule 415 mm as fitted 410 mm  
 Propeller Shaft, diameter 480 mm Is the shaft fitted with a continuous liner No  
 as fitted 480 mm as per Rule 480 mm

Propeller Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the  
 as fitted as per Rule as fitted as per Rule  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓  
 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 ✓  
 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 Yes Length of Bearing in Stern Bush next to and supporting propeller 1000 mm  
 Propeller, dia. 18' 2 1/2" Pitch 16' 8 1/16" No. of blades 4 Material Brass whether Moveable No Total Developed Surface 107.65 sq. feet  
 Method of reversing Engines Cams As a governor or other arrangement fitted to prevent racing of the engine when declutched ✓ Means of lubrication  
oil Thickness of cylinder liners 30 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
 conducting 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 Tunnel  
 Cooling Water Pump, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Main Engines, No. 2 Diameter 22" Stroke 18" Can one be overhauled while the other is at work ✓  
 Pumps connected to the Main Bilge Line No. and Size 1 à 5x5" 1 à 8x9x9"  
 How driven Steam & Electric  
 Lubricating Oil Pumps, including Spare Pump, No. and size 2

Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 pumps, No. and size:—In Machinery Spaces 4 à 3 1/2" 1 in tunnel à 3 1/2" 2 in after end à 3 1/2" one in oil well  
 Holds, &c. 2 in oil well for deep tanks at 3" 2 in for deep tanks at 3" 2 in for deep tanks at 3" 2 in for deep tanks at 3"  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 à 5 1/2" and 1 à 6"  
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes 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 Yes  
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
 What pipes pass through the bunkers None How are they protected ✓  
 What pipes pass through the deep tanks None 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 Yes  
 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 Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform  
 Are all Air Compressors, No. One No. of stages 3 Diameters 110 x 825/660 Stroke 600 mm Driven by Main engine  
 Auxiliary Air Compressors, No. Two No. of stages 3 Diameters 74 x 283 x 322 mm Stroke 180 mm Driven by Electric motor  
 Auxiliary Air Compressors, No. One No. of stages 3 Diameters 26 x 40-101 x 110-16 Stroke 80 mm Driven by Brass motor  
 Air Pumps, No. Two Diameter 1800 mm Stroke 850 mm Driven by Main engine  
 Auxiliary Engines crank shafts, diameter 175 mm  
 as fitted 175 mm

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 Yes What means are provided for cleaning their inner surfaces Cover  
 Is there a drain arrangement fitted at the lowest part of each receiver Yes  
 High Pressure Air Receivers, No. 8 Cubic capacity of each 800 liter Internal diameter 400 mm thickness 18 mm  
 Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 50.55 kg/cm<sup>2</sup> Working pressure by Rules 10.1 kg/cm<sup>2</sup>  
 Starting Air Receivers, No. 1 Total cubic capacity 20.55 cbm Internal diameter 2090 mm thickness 30 mm  
 Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 44-50 kg/cm<sup>2</sup> Working pressure by Rules 3.0 kg/cm<sup>2</sup>

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

PLANS. Are approved plans forwarded herewith for Shafting

Retained 4-7-1927

Receivers

Retained 7-7-27

Separate Tanks

✓

Donkey Boilers

11-5-28

General Pumping Arrangements

8-12-1927

Oil Fuel Burning Arrangements

✓

SPARE GEAR 1 cylinder cover complete with all valves, valve casing, springs and other fittings. One set of valves and springs. One set of fuel needle valves. One cylinder liner. One piston complete with piston rings. One set of telescopic cooling pipes for one piston. One set of chow wheels for the camshaft drive. Hubs and nuts for one cylinder cover & crosshead bolts, 2 crankpin bolts and nuts, 2 main bearing bolts. One set of bolts for one crankshaft coupling. One set of bolts for one intermediate shaft coupling. For Compressors: One complete set of piston rings, one set of suction and delivery valves. More than 10% of suction and delivery valves for the scavenging pumps. One fuel pump. One additional water circulating pump, a full set of gear gear for each fuel oil pump, lubricating pump, bilge pump and ballast pump including valves. A quantity of assorted bolts and nuts. Several lengths of pipes with unions and flanges suitable for each size used. One cast iron propeller, one propeller shaft and further many additional parts as required per owners specifications.

The foregoing is a correct description,

Flushing, 6th February 1929.

KON. MY. "DE SCHULDE".

[Signature]

Manufacturer.

Table with 2 columns: Dates of Survey while building, Total No. of visits. Includes dates from 1927 to 1929 and a total of 50 visits.

Table with 2 columns: Dates of Examination of principal parts, Identification Marks. Lists parts like Cylinders, Covers, Pistons, Rods, Connecting rods, Crank shaft, Flywheel shaft, Thrust shaft, Intermediate shafts, Tube shaft, Screw shaft, Propeller, Stern tube, Engine seatings, Engines holding down bolts.

Table with 2 columns: Completion of fitting sea connections, Completion of pumping arrangements, Engines tried under working conditions. Includes dates like 13-3-28, 17-12-28, 15-1-29.

Table with 2 columns: Crank shaft, Material, Identification Mark. Includes material J. M. Steel and identification marks like LLOYD'S CN 13228, KH. 24.2.28.

Table with 2 columns: Thrust shaft, Material, Identification Mark. Includes material J. M. Steel and identification marks like LLOYD'S CN 13189, KH. 10.10.28.

Table with 2 columns: Tube shaft, Material, Identification Mark. Includes material L and identification mark LLOYD'S d 2129, KH. 27-9-27.

Is the flash point of the oil to be used over 150° F. Yes. Is this machinery duplicate of a previous case Yes. If so, state name of vessel KOTA RADJA.

General Remarks (State quality of workmanship, opinion as to class, &c.) The machinery has been made in accordance with the approved plans, Society's Rules and Secretary's letters, material tested as required and workmanship good, the whole was found in a good working condition during a trial trip on the North Sea and the vessel is in my opinion eligible to be recorded in the Society's Register Book with LMC 1-29.09.

Rotterdam Surveyors

Table with 2 columns: The amount of Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses (if any). Includes amounts like 42.00, 1575.00, 50.00, 375.00.

Committee's Minute FRI. 15 FEB 1929

Assigned L.M.C. 1-29 Oil Engine 09. 5. B. 95 lbs

Signature of J. J. Ochoa, Engineer Surveyor to Lloyd's Register of Shipping. Includes Lloyd's Register Foundation logo and copyright notice.