

REPORT ON OIL ENGINE MACHINERY.

No. 19015

27 NOV 1930

Received at London Office

Date of writing Report 14-10-1930 When handed in at Local Office

19 Port of Rotterdam

No. in Survey held at
Reg. Book.

Date, First Survey 17-9-29. Last Survey 13-10-1930

Number of Visits 22

Single
Twin
Triple
Quadruple

Screw vessel

"KOTA AÇOENG"

Tons { Gross 4531
Net 4600

Built at Rotterdam By whom built My Tienwood Yard No. 317. When built 1930
Engines made at Rotterdam By whom made My Tienwood Engine No. 569. When made 1930
Donkey Boilers made at ~~Rotterdam~~ ^{Chubb} By whom made Spencer Hopwood. Boiler No. 9880 When made 1919
Brake Horse Power 1 x 2750 Owners Rotterdam Lloyd Port belonging to Rotterdam
Nom. Horse Power as per Rule 1476 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which vessel is intended Dutch East Indies

OIL ENGINES, &c. Type of Engines 2 SCDA Diesel (One made at Chubb) 2 or 4 stroke cycle 2 Single double acting
Maximum pressure in cylinders 35 atm Diameter of cylinders 510 mm Length of stroke 700 mm No. of cylinders 2 x 5 No. of cranks 2 x 5
Span 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 115 Flywheel dia. - Weight - Means of ignition Diesel pump injection Kind of fuel used Diesel oil
Crank Shaft, dia. of journals as per Rule 350 mm Crank pin dia. 350 mm Crank Webs Mid. length breadth 490 mm Thickness parallel to axis -
as fitted 350 mm Mid. length thickness 190 mm Thickness around eye hole -
Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as fitted 415 mm Thrust Shaft, diameter at collars as fitted 460 mm
as fitted - as per Rule 480 mm Is the screw shaft fitted with a continuous liner No
Tube Shaft, diameter as fitted - as fitted 480 mm Is the after end of the liner made watertight in the propeller boss Yes
Bronze Liners, thickness in way of bushes as per Rule - Thickness between bushes as fitted - 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 Yes. Pedewalls patent

Propeller, dia. 5790 mm Pitch 5330 No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 120.5 sq. feet
Method of reversing Engines Camshaft & compressed air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Forged 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 Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel
Cooling Water Pumps, No. 2. One 3800 mm One 6000 mm Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge 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 1. One 3200 mm and one 4000 mm How driven Electrically
Ballast Pumps, No. and size One 3200 mm Lubricating Oil Pumps, including Spare Pump, No. and size 1. 5200 mm 1/2 in. Volume coupling 10000 mm

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 5 90 mm. One in tunnel 90 mm

In Holds, &c. in ex. 1 & 2 hold 2 90 mm. In fore & aft tanks 2 90 mm. One in Cofferdam 1 90 mm. 91-96 2 90 mm. Off fore & aft tanks 2 90 mm.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 170 mm. 1 90 mm.

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes 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 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

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. 2 x 1 No. of stages 3 Diameters 580 x 515 x 110 Stroke 400 mm Driven by Main crank shafts
Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 356 x 356 x 82 Stroke 100 mm Driven by Electric motor
Small Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 262 x 110 x 100 Stroke 80 mm Driven by Electric motor
Scavenging Air Pumps, No. 2 double acting Diameter 1080 mm Stroke 550 mm Driven by Main crank shafts
Auxiliary Engines crank shafts, diameter as per Rule 269.9 mm as fitted 269.9 mm

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 Yes What means are provided for cleaning their inner surfaces Covers
Is there a drain arrangement fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. 3 Cubic capacity of each 2500 litres Internal diameter 410 mm thickness 20 mm
Seamless, lap welded or riveted longitudinal joint Seamless Material 4 M. Steel Range of tensile strength 51.84% Working pressure by Rules 150 lb/sq. in.
Starting Air Receivers, No. One Total cubic capacity 14130 litres Internal diameter 1600 mm thickness 23 mm
Seamless, lap welded or riveted longitudinal joint Riveted Material 8 M. Steel Range of tensile strength 44.50% Working pressure by Rules 26 lb/sq. in.

003138-003146-0018

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

London report 9439
returned herewith

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Retained

17.7.29

Receivers

Retained

25.10.29.

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR One cylinder cover for top and bottom complete with all valves, valve casings, springs etc. One complete set of valves for one cylinder with springs etc. Five needle valves for one engine. One piston with rod complete. One set of rings for piston cooling. One set of wheels for crankshaft disc. A large number of studs and nuts of each design, 2 crosshead, 2 crankpin and 2 main bearing bolts and nuts. One set of coupling bolts for crankshaft and one set for intermediate shaft. One set of piston rings and nutson and delivery valves of main compressor. One set of valves for scavenging pumps. A complete set of spares for helge pumps; ballast pumps and cooling water and oil pumps, and lubricating pumps and further as per owner's specification.

The foregoing is a correct description,

Maatschappij voor Scheeps- en Werktuigbouw

FIJENOORD, N.A.

Manufacturer

Dates of Survey while building
During progress of work in shops-- 1929 17.10.23/9 8.11.14/10 12.30/11 10.13.16.20.24.30/12 1930 6.14.18.30/4 6.11.23.24/15 10.14.16.24.27.31/13
During erection on board vessel-- 1930 15.14/17 21/17 28/18 29/18 1/29/19 28/19 26/19 29/19 11/13
Total No. of visits 54.

Dates of Examination of principal parts—Cylinders 18/11/1914 Covers Made Pistons in Rods Germany Connecting rods 11.2.30
Crank shaft Made in Germany Flywheel shaft Made in Thrust shaft Germany Intermediate shafts 24.3.30 Tube shaft
Screw shaft Made in Germany Propeller 8.4.30 Stern tube 28.4.30 Engine seatings 8.4.30 Engines holding down bolts 14.7.30
Completion of fitting sea connections 25.4.30 Completion of pumping arrangements 25.9.30 Engines tried under working conditions 25.16/30
Crank shaft, Material S.M. Steel Identification Mark LLOYD'S NO 3806 1914 HK 8-11-29 Flywheel shaft, Material Identification Mark
Thrust shaft, Material S.M. Steel Identification Mark Intermediate shafts, Material S.M. Steel Identification Marks NO 3189 30-91-92-93-94 14.1.12.29
Tube shaft, Material Identification Mark Screw shaft, Material S.M. Steel Identification Mark LLOYD'S NO 3187 30-91-92-93-94 14.1.12.29

Is the flash point of the oil to be used over 150° F. Yes

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.) The machinery has been made and fitted in accordance with the Society's Rules. Approved plans and Secretary's letters, material tested as required and workmanship good. The machinery was found in a good working condition when tried, also with regards to manoeuvring purposes and I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with + LMC 10-30

The amount of Entry Fee ... 42.00 When applied for, who 1929
Post Special ... 1251.60
AIR VESSEL ... 50.00 When received, 14.11.1930
Donkey Boiler Fee ... 96.00
Travelling Expenses (if any)

Committee's Minute TUE. 4 NOV 1930

Assigned

+ L.M.C. 10.30

O.G.

Oil Eng.

D.B. 100 lb

CERTIFICATE WRITTEN.

J. J. Ochoa
Surveyor to Lloyd's Register of Shipping.



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