

## REPORT ON OIL ENGINE MACHINERY.

No. 892

Received at London Office

24 OCT 1953

Date of writing Report 5-10-1953 When handed in at Local Office ✓ 19 53 Port of GRONINGEN

No. in Survey held at MARTENSHOEK Date, First Survey 19-6-53 Last Survey 22-9-1953

Reg. Book. Single on the Twin Screw vessel M.V. "BARAN" Tons Gross 195.25 Net 76.41

Built at MARTENSHOEK By whom built RODENES SCHEEPSWERKEN Yard No. 401 When built 1953

Engines made at AMSTERDAM By whom made N.V. WERKSTADT Engine No. 1601 When made 1953

Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Brake Horse Power { Maximum 430 ✓ Service 430 ✓ Owners REPUBLIC INDONESIA Port belonging to JAKARTA

M.N. as per Rule 86 ✓ Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended SERVICE IN THE INDONESIAN ARCHIPELAGO

OIL ENGINES, &c. —Type of Engines. ✓ DIMENSIONS IN MM ✓ 2 or 4 stroke cycle ✓ Single or double acting ✓Maximum pressure in cylinders ✓ Diameter of cylinders ✓ Length of stroke ✓ No. of cylinders ✓ No. of cranks ✓Mean Indicated Pressure ✓ Span of bearings (i.e., distance between inner edges of bearings in way of a crank) ✓ Is there a bearing between each crank ✓ Revolutions per minute { Maximum ✓ Service ✓Flywheel dia. ✓ Weight ✓ Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) ✓ Means of ignition ✓ Kind of fuel used ✓Crank Shaft, { Solid forged ✓ Semi built ✓ All built ✓ dia. of journals ✓ as per Rule ✓ as fitted ✓ Crank pin dia. ✓ Crank webs ✓ Mid. length breadth ✓ Mid. length thickness ✓ Thickness parallel to axis ✓ Thickness around eyehole ✓Flywheel Shaft, diameter ✓ as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter ✓ as per Rule ✓ as fitted ✓ 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 ✓ screw ✓ shaft fitted with a continuous liner { YES ✓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 fitted at the after end of stern tube NO If so, state type ✓ Length of bearing in Stern Bush next to and supporting propeller 786 ✓Propeller, dia. 1515 ✓ Pitch 1195 No. of blades 4 Material BRONZE whether moveable SOLID Total developed surface 63.1 ✓Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 122 Kind of dumper, if fitted ✓Method of reversing Engines ✓ Is a governor or other arrangement fitted to prevent racing of the engine ✓ Means of lubrication ✓ Thickness of cylinder liners ✓ 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. and how driven ✓ Working F.W. ✓S.W. 1 ME Spare F.W. ✓ S.W. 1 BALLAST Is the sea suction provided with an efficient strainer which can be cleared within the vessel YESBilge Pumps worked from the Main Engines, No. and capacity 1 @ 18 1/2 ✓ Can one be overhauled while the other is at work ✓Pumps connected to the Main Bilge Line { No. and capacity of each 1 @ 18 1/2 ✓ 1 @ 30 1/2 ✓ How driven ME ELECT.Is the cooling water led to the bilges NO ✓ 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 capacity 1 @ 30 1/2 ✓ Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 @ 5 1/2 ✓Are two independent means arranged for circulating water through the Oil Cooler YES ✓ Branch Bilge Suctions ✓No. and size:—In machinery spaces 2 @ 2 1/2 ✓ In pump room ✓In holds, &c. 5 @ 2 (IN HOLDS & ACCOMMODATION) ✓Direct Bilge Suctions to the engine room bilges, No. and size 2 @ 3 ✓Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES ✓ Are the bilge suction 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 EX. CHESTS Are they fitted with valves or cocks VALVES ✓ 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 ✓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 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 ✓ 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. 1 ✓ No. of stages 2 diameters 100/120 stroke 90 driven by MEAuxiliary Air Compressors, No. 1 ✓ No. of stages 2 diameters 95/110 stroke 85 driven by A.E.Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ diameters ✓ stroke ✓ driven by ✓What provision is made for first charging the air receivers HAND STARTED AIR ENGINE ✓Scavenging Air Pumps or Blowers, No. ✓ How driven ✓Auxiliary Engines Have they been made under survey YES Engine Nos. 13032Makers name KROMHOUT Position of each in engine room STAR EX. FLOOR LEVELAM: F.E. Report No. 18947

012431-012438-0398



AIR RECEIVERS:—Have they been made under survey YES State No. of report or certificate ✓

State full details of safety devices ✓

Can the internal surfaces of the receivers be examined and cleaned ✓ Is a drain fitted at the lowest part of each receiver ✓

Injection Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓

Starting Air Receivers, No. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓

IS A DONKEY BOILER FITTED NO 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 ✓ Receivers ✓ Separate fuel tanks ✓  
(If not, state date of approval)

Donkey boilers ✓ General pumping arrangements ✓ Pumping arrangements in machinery space ✓

Oil fuel burning arrangements ✓

Have Torsional Vibration characteristics been approved ✓ Date and particulars of approval ✓

### SPARE GEAR.

Has the spare gear required by the Rules been supplied YES State if for "short voyages" only ✓

State the principal additional spare gear supplied 1 SPARE INBOARD

The foregoing is a correct description, and the particulars of the installation as fitted are as approved for torsional vibration characteristics. Manufacturer. Hoogezand

Dates of Survey while building  
During progress of work in shops - 6 visits. Adam Rgt No. 18970  
During erection on board vessel - 1953 June 19-22-24 July 2-8-13-27-31 Aug 3-7-13-14 17-20-26 Sep 3-7  
Total No. of visits 23

Dates of examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓

Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓

Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings 14-2-53 Engine holding down bolts 14-2-53

Completion of fitting sea connections 2-7-53 Completion of pumping arrangements 22-9-53 Engines tried under working conditions 22-9-53

Crank shaft, material ✓ Identification mark ✓ Flywheel shaft, material ✓ Identification mark ✓

Thrust shaft, material ✓ Identification mark ✓ Intermediate shafts, material SM STEEL Identification marks ✓

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material SM STEEL Identification mark ✓

Identification marks on air receivers ✓ SPARE ✓ 1 N2 646-KM-16-1-53

Welded receivers, state Makers' Name ✓

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 YES

Full description of fire extinguishing apparatus fitted in machinery spaces 3 FIREFOAMS @ 9 LTRS & 3" FPR HOSE CONNECTION

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo NO If so, have the requirements of the Rules been complied with ✓

What is the special notation desired ✓

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 Baga

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

This engine and auxiliaries have been constructed and fitted under special survey in accordance with the approved plans, Society's Rules and Secretary's letter. The workmanship was found good. The machinery has been tested under full working conditions on a trial trip and found working satisfactorily. In my opinion the machinery of this vessel meets the approval of the Committee and is entered in the Society's Register Book No 1 MC 9-53 - OIL ENGINE - CL

The amount of Entry Fee £ 220.-

Special £

Donkey Boiler Fee £

Travelling Expenses (if any) £ 80.-

When applied for 9-10-1953

When received 19

(Committee's Minute)

Assigned Dfd. for Gen. Examination

THURSDAY 12 NOV 1953

