

## REPORT ON OIL ENGINE MACHINERY.

No. 35490 B

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of writing Report 27-9-1952 When handed in at Local Office 19 Port of Rotterdam

Survey held at Slidrecht Hindia dyk Date, First Survey 19-5-52 Last Survey 25-8-1952

Book 253 on the Twin Triple Quadruple Screw vessel M.V. "Bettet"

at Slidrecht By whom built Messrs "De Klop" Yard No. C.O. 182 When built 1952

nes made at Amsterdam By whom made Werkspoor B.V. Engine No. 1333 When made 1952

y Boilers made at By whom made Boiler No. When made

Horse Power 430 Owners Indonesian Government Port belonging to Djakarta

Power as per Rule 86 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

for which vessel is intended Service in Indonesian Archipelago

ENGINES, &c. — Type of Engines Please see Antedated rpt No. 18270 or 4 stroke cycle Single or double acting

um pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured

inner edge to inner edge Is there a bearing between each crank Revolutions per minute

eel 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

(Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis

eel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted

Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner

e Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the

ler boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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-

ive 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

tube shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller

ller, dia. 15.5 Pitch 119.5 No. of blades 4 Material bronze whether moveable Solid Total developed surface 63.6 sq. feet

nt of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Kind of damper, if fitted

od of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of

ation Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled

ed with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

o the engine Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

s connected to the Main Bilge Line No. and size 1 a 16 T/h 1 a 30 T/h 1-2" hand pump

How driven Main engine Electric drive

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

ements

t Pumps, No. and size One 30 T/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 a 4.5 T/h 1 a 4.8 T/h

no independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary

pumps, No. and size:—In machinery spaces 1 a 20 T/h 1 a 65 T/h 2 a 50 T/h In pump room

ds, &c. crew spaces 5 a 50 T/h

endent Power Pump Direct Suctions to the engine room bilges, No. and size 1 a 20 T/h

l 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

ble mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Sea Connections fitted direct on the skin of the Ship on boxes Are they fitted with valves or cocks valves Are they fixed

nily 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 below

ey 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

pipes pass through the bunkers None How are they protected

pipes pass through the deep tanks None Have they been tested as per Rule

ll pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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

s, or from one compartment to another Yes Is the shaft tunnel watertight No tunnels it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. No. of stages diameters stroke driven by

lary Air Compressors, No. 1 No. of stages 2 diameters 40/100 T/h stroke 85 T/h driven by Aux. engine

Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

provision is made for first charging the air receivers Auxiliary engine hand started

nging Air Pumps, No. diameter stroke driven by

lary Engines crank shafts, diameter as per Rule No. One Horizontal 4-12.635 30 BHP

as fitted Position port side in engine room

the auxiliary engines been constructed under special survey Yes Is a report sent herewith Copy certificate

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AIR RECEIVERS:—Have they been made under survey. Yes State No. of report or certificate. Sheffield C 91  
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 and cleaned. Yes Is a drain fitted at the lowest part of each receiver. Yes  
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. 2 Total cubic capacity. 1200 lbs Internal diameter. 49.6 1/2 thickness. 9.5  
Seamless, welded or riveted longitudinal joint. Seamless Material S.M. steel Range of tensile strength 60.2-59.6 Working pressure 30 kg/cm<sup>2</sup>

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. 20-3-52 Receivers. 20-3-52 Separate fuel tanks. —  
(If not, state date of approval)  
Donkey boilers. — General pumping arrangements. 23-4-52 Pumping arrangements in machinery space. 23-4-52  
Oil fuel burning arrangements. —  
Have Torsional Vibration characteristics been approved. Yes Date of approval. 25-3-52

### SPARE GEAR.

Has the spare gear required by the Rules been supplied. Yes  
State the principal additional spare gear supplied. Spare screw shaft, spare bronze propeller.

The foregoing is a correct description. L. SMIT & ZOON'S  
Scheeps & Werktuigbouw N.V. Manufacturer.

Dates of Survey while building  
During progress of work in shops - —  
During erection on board vessel - 1952: May 19, June 4, July 5-24-29, August 20-25  
Total No. of visits. 7

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. 7-4-52 Stern tube. fitted 19-5-52 Engine seatings. 19-5-52 Engine holding down bolts. 24-8-52  
Completion of fitting sea connections. 19-5-52 Completion of pumping arrangements. 20-8-52 Engines tried under working conditions. 25-8-52  
Crank shaft, material. — Identification mark. — Flywheel shaft, material. — Identification mark. —  
Thrust shaft, material. — Identification mark. LLOYD'S N° 8512 Intermediate shafts, material. — Identification marks. LLOYD'S N° 755  
Tube shaft, material. — Identification mark. — Screw shaft, material. — Identification mark. LLOYD'S N° 74  
Identification marks on air receivers. N° 906097-906099 LLOYD'S TEST 60 kg. WP 30 kg. R.R. 13-6-49

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  
Description of fire extinguishing apparatus fitted. 3-2 gallon foam type extinguisher. 1 Pyrene gun. 1 fire hose, nozzle  
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. —  
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. M. R. Bango

General Remarks (State quality of workmanship, opinions as to class, &c.)  
The machinery of this vessel has been constructed and fitted under Special Survey in accordance with the approved plans, Society's Rules and Secretary's letter. Materials have been tested as required and the workmanship found good. The machinery has been tried under full working conditions and was found in good working and manoeuvring order. In my opinion this vessel's machinery merits the approval of the Committee to be recorded in the Society's Register Book with the notation of + LMC. 8-52. Oil Engines. C.L.

The amount of Entry Fee ... 16.1-  
Special ... £ :  
Donkey Boiler Fee... £ :  
Travelling Expenses (if any) 18.50  
TUES. 6 JAN 1953

When applied for 7/11 19 52  
When received 19

S. M. Doudoch  
Engineer-Surveyor to Lloyd's Register of Shipping

Assigned + LMC 9.52 Oil Eng.  
CL



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