

Completion of Amsterdam Rpt 18493

## REPORT ON OIL ENGINE MACHINERY.

No. ~~18493~~  
18721

Received at London Office 23 FEB 1953

Survey Report Dec 18 1952 When handed in at Local Office 19 Port of Amsterdam  
Survey held at Alphen 9a Rijn Date, First Survey Aug 8 Last Survey Dec 16 1952 See Rpt 13  
Number of Visits 5  
Single on the Twin Triple Quadruple Screw vessel "Bido"  
Tons Gross 194.34 Net 75.55  
Alphen 9a Rijn By whom built de Vries Lentsch Yard No. 183 When built 1952  
made at Amsterdam By whom made N.V. Werkspoor Engine No. 1063 When made 1952  
Boilers made at By whom made Boiler No. When made  
Power 430 Owners Republik Indonesia Port belonging to Djakarta  
as per Rule 86 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
which vessel is intended Indonesian Archipelago

GINES, &c. —Type of Engines 2 or 4 stroke cycle Single or double acting  
pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks  
icated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured  
r edge to inner edge Is there a bearing between each crank Revolutions per minute  
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 as per Rule Crank pin dia Crank webs Mid. length breadth shrunk Thickness parallel to axis  
Semi built dia. of journals as fitted Crank webs Mid. length thickness Thickness around eyehole  
All built as fitted  
Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as fitted  
ft, diameter as per Rule as fitted Screw Shaft, diameter as fitted Is the { tube } shaft fitted with a continuous liner { screw }  
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  
boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
er 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-  
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  
e shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller  
dia. 1515mm Pitch 1195mm No. of blades 4 Material Bronze whether moveable NO Total developed surface 6.3%  
of inertia of propeller (lbs. in<sup>2</sup> or Kg.cm.<sup>2</sup>) Kind of damper, if fitted  
of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of  
n Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled  
with non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
he engine Cooling Water Pumps, No Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
mps worked from the Main Engines, No Diameter Stroke Can one be overhauled while the other is at work  
connected to the Main Bilge Line No. and size 1 centrifugal gen service pump cap. 30 m<sup>3</sup>/hr at 15 meters back pressure n = 1800  
How driven electric driven 1 hand pump in eng room (above) cap 38 ltr/min 2" pump  
oling 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  
ents  
Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size  
independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both main bilge pumps and auxiliary  
mps, No. and size:—In machinery spaces 2 of 80 mm In pump room  
s, &c 5 of 2" (2 after and 3 fore)  
ident Power Pump Direct Suctions to the engine room bilges, No. and size 1 of 80 mm  
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  
e 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 yes Are they fitted with valves or cocks valves Are they fixed  
ly 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  
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 no pipes How are they protected  
pipes pass through the deep tanks Have they been tested as per Rule  
er Ca pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times yes  
Ton 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  
or from one compartment to another yes Is the shaft tunnel watertight Not tunnel Is it fitted with a watertight door worked from  
od 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  
ary Air Compressors, No 1 No. of stages 2 diameters 95-110mm stroke 85mm driven by aux engine  
Auxiliary Air Compressors, No No. of stages diameters stroke driven by  
provision is made for first charging the air receivers Aux engine can be started by hand  
ging Air Pumps, No diameter stroke driven by  
ary Engines crank shafts, diameter as per Rule as fitted journals 82.5mm with h 38mm pin 73mm No. 25mm Position Probable in eng room  
the auxiliary engines been constructed under special survey yes Is a report sent herewith  
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AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....

Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....

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..... 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..... (If not, state date of approval)..... Receivers..... Separate.....

Donkey boilers..... General pumping arrangements..... 26-2-52..... Pumping arrangements in machinery space..... 26.....

Oil fuel burning arrangements.....

Have Torsional Vibration characteristics been approved..... Date of approval.....

### SPARE GEAR.

Has the spare gear required by the Rules been supplied..... *yes*.....

State the principal additional spare gear supplied.....

The foregoing is a correct description.....

Manufacturer.....

Dates of Survey while building.....

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits.....

8/8 - 23/9 - 2/10 - 26/11 - 16/12 - 52

5

Dates of examination of principal parts—Cylinders..... Covers..... Pistons..... Rods..... Connecting rod.....

Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... 2-5-52..... Tube shaft.....

Screw shaft..... 9-4-52..... Propeller..... 16-5-52..... Stern tube..... 2/5 - 9/8-52..... Engine seatings..... 21-10-52..... Engine holding down bolts.....

Completion of fitting sea connections..... 23-9-52..... Completion of pumping arrangements..... 26-11-52..... Engines tried under working conditions.....

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.....

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..... 7 foam type 2 gallons cap..... 12 canvas hoses 15 metres length dia 2"

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.....

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

The machinery of this vessel has been built and fitted under special survey in accordance with approved plans, Secretary letters and Society Rules.

Materials tested as required and workmanship found good.

The machinery has been tried out under full load conditions at a trial trip on 16-1952 and found functioning satisfactory. ME max n = 375

In my opinion the machinery of this vessel is eligible for the notation + LMC

Copy cut of gen service pump Rotterdam 11881 dtd 5th June 1952, copy cut Amsterdam C5752 dtd 3rd May 1952

Steamtube, copy cut Rotterdam 11881 dtd 14th May 1952 of propeller, copy cut Amsterdam dtd 14th May 1952

of aux engine and copy cut Rotterdam No 12042 dtd 14-5-52 of aux compressor added

The amount of Entry Fee ... £ 161.-

Special ... £

Donkey Boiler Fee... £

Travelling Expenses (if any) £ 52.50

When applied for 19-2 1953

When received 19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

Time 12.52

CL

Oil Eng



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