

REPORT ON OIL ENGINE MACHINERY.

No. R.616

Received at London Office

Date of writing Report 21-8-1953 When handed in at Local Office 19 Port of GRONINGEN 28 AUG 1953

No. in Survey held at WESTERBROEK Date, First Survey 13.8.53 Last Survey 20.8.1953
Reg. Book. Number of Visits 24

Single on the Twin Screw vessel M.V. "PERMATA" Tons Gross 664.84
Triple Net 439.36
Quadruple

Built at WESTERBROEK By whom built N.V. E.J. SMIT & ZN'S ZONN Yard No. 727 When built 1953

Engines made at AMSTERDAM By whom made N.V. WERKSPOR Engine No. 1472 When made 1953

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

Brake Horse Power 500 Owners REPUBLIK INDONESIA Port belonging to DJAKARTA

M.N. Power as per Rule 100 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended OCEAN TRADE

OIL ENGINES, &c. —Type of Engines 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 ✓ Ahead Firing Order in Cylinders ✓ Span of bearings, adjacent to the crank, measured from inner edge to inner edge ✓ Is there a bearing between each crank ✓ Revolutions per minute ✓

Flywheel dia. ✓ Weight ✓ Moment of inertia of flywheel (lbs. in² or Kg. cm.²) ✓ Means of ignition ✓ Kind of fuel used ✓

Crank Shaft, Solid forged dia. of journals as per Rule 186 Crank pin dia. ✓ Crank webs Mid. length breadth shrunk Thickness parallel to axis ✓
Semi built as fitted 186 Mid. length thickness ✓ Thickness around eye-hole ✓
All built

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

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

Bronze 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 propeller boss ✓
as fitted ✓ 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 tube shaft YES If so, state type VAN DAM Length of bearing in Stern Bush next to and supporting propeller 800

Propeller, dia. 1840 Pitch 1130 No. of blades 4 Material BRONZE whether moveable SOLID Total developed surface 45.2 sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm.²) 259 Kind of damper, if fitted ✓

Method of reversing Engines ✓ Is a governor or other arrangement fitted to prevent racing of the engine when declutched ✓ Means of lubrication ✓ Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves ✓ 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. 1 FW (ME) + 1 SW (ME) + 1 FW (ELEC) + 2 BALLAST 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 2 @ 3.5 TH + 1 EMERGENCY BILGE PUMP @ 3.5 TH
How driven AE ELEC

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 size 2 @ 3.5 TH Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 @ 4 TH, 1 @ 6 TH

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 1 @ 3" In pump room ✓

In holds, &c. 6 @ 2 1/2"

Independent Power Pump Direct 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 EM. 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 BALLAST LINES TO FOREDECK & NO. 1, 2, & DE. TANKS Have they been tested as per Rule YES

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 MARK SET 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. ✓ No. of stages 2 diameters 100/120 stroke 90 driven by ME

Auxiliary Air Compressors, No. ✓ No. of stages 2 diameters 95/110 stroke 85 driven by AE

Small Auxiliary Air Compressors, No. ✓ No. of stages 2 diameters 75/85 stroke 70 driven by AE

What provision is made for first charging the air receivers HAND STARTED AUX. ENGINES

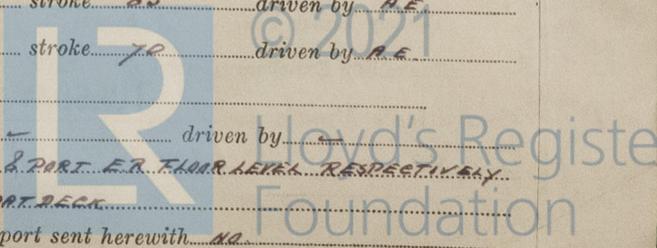
Scavenging Air Pumps, No. ✓ diameter ✓ stroke ✓ driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule KROMHOUT N° 130.40 & 130.41 No. STAD & PART ER FOUR LEVEL RESPECTIVELY
as fitted SAMARA N° 12.71 Position PART DECK

Have the auxiliary engines been constructed under special survey YES M.S. F.E. REPORT N° 18216 Is a report sent herewith NO
AMS. BERT. DATED 9-2-53.

SWK
18/9/53

8100-290310-150310
013057-013062-0078



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... Receivers... Separate fuel tanks

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

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

State the principal additional spare gear supplied

The foregoing is a correct description, and the particulars of the installation... Manufacturer.

Dates of Survey while building... During progress of work in shops... During erection on board vessel... Total No. of visits

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... Engine holding down bolts

Completion of fitting sea connections... Completion of pumping arrangements... Engines tried under working conditions

Crank shaft, material... Identification mark... Flywheel shaft, material... Identification mark

Thrust shaft, material... Identification mark... Intermediate shafts, material... Identification marks

Tube shaft, material... Identification mark... Screw shaft, material... Identification mark

Identification marks on air receivers... SPARE SCREW SHAFT: 1 G.R.O. N° 4450 - AVH/CPM - 28-4-53

Welded receivers, state Makers' Name

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Description of fire extinguishing apparatus fitted

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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... If so, state name of vessel

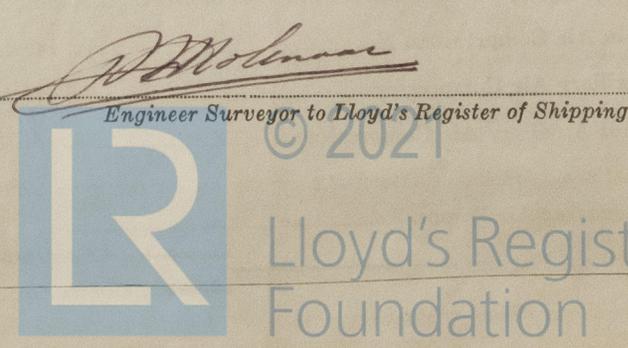
General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

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... On my opinion the machinery of this vessel merits the approval of the Committee and be recorded in the Society's Register Book 74 LMC 8-53.

OIL ENGINE - O.G.

The amount of Entry Fee... Special... Donkey Boiler Fee... Travelling Expenses (if any)

Committee's Minute... Assigned... TUESDAY 22 SEP 1953... LMC 8-53 Oil Eng.



Vertical text on the left margin: Certificate (if required) to be sent to... The Surveyors are requested not to write on or below the space for Committee's Minute.

Vertical text on the right margin: Rpt., Date, No. in Reg., Built, Eng, Donk, Brake, M.N., Trad, OIL, Mar, Mean, way, Fly, Craf, Sha, Fly, Tub, Bro, pro, If t, cor, end, Pro, Mon, Me, lub, or, bac, S.W, Bil, Pu, Is, arr, Ba, Ar, No, In, Di, Ar, ac, Ar, su, A, W, W, A, Is, SP, If, M, A, S, W, S, A