

# REPORT ON OIL ENGINE MACHINERY.

No. 368056

Received at London Office

Date of writing Report 20<sup>th</sup> July 1953 When handed in at Local Office 19<sup>th</sup> June Port of Rotterdam  
 Survey held at Haltbommel Date, First Survey 11<sup>th</sup> June Last Survey 7<sup>th</sup> July 1953  
 Number of Visits 5

Single ✓ on the Twin ✓ Triple ✓ Quadruple ✓ Screw vessel ✓  
 Tons Gross 10,743.7 Net 233.95

By whom built Thuis "de Waal" Yard No. 641 When built 1951  
 By whom made Thuis "Werkspoor" NV Engine No. 1435-1429 When made 1951

Boiler No. ✓ When made ✓  
 Port belonging to Djakarta

Owners Indonesian Government  
 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ade for which vessel is intended Passenger going Service  
 Type of Engines Heavy oil engines 2 or 4 stroke cycle 4 stroke Single or double acting Single

Maximum pressure in cylinders 50 kg/cm<sup>2</sup> Diameter of cylinders 170 mm Length of stroke 500 mm No. of cylinders 6 No. of cranks 6  
 Indicated Pressure 7.5 kg/cm<sup>2</sup> Span of bearings (i.e., distance between inner edges of bearings in

ay of a crank) 320 mm Is there a bearing between each crank Yes Revolutions per minute { Maximum 375 Service ✓  
 Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 10,200 kg. cm<sup>2</sup> Means of ignition Compression Kind of fuel used Diesel oil

Crank pin dia. 1120 mm Weight 1250 kg " " " " balance wts. ( " " " " )  
 Solid forged ✓ dia. of journals as per Rule Crank pin dia. 200 mm Crank webs Mid. length breadth shrunk Thickens parallel to axis  
 All built ✓ as fitted 100 mm Mid. length thickness Thickens around eye hole

Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule  
 as fitted 120 mm as fitted 115 mm

Screw Shaft, diameter as per Rule Is the (tube) shaft fitted with a continuous liner Yes  
 as fitted 135 mm as fitted ✓

Thickens between bushes as per Rule Is the after end of the liner made watertight in the  
 as fitted ✓ as fitted ✓

propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓  
 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-  
 erosive ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland fitted at the after

d of stern tube no If so, state type ✓ Length of bearing in Stern Bush next to and supporting propeller ✓  
 propeller, dia. 1750 mm Pitch 1265 mm No. of blades 3 Material bronze whether moveable ✓ Total developed surface 30.6 % sq. feet  
 Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) ✓ Kind of damper, if fitted ✓

Method of reversing Engines ✓ Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of  
 brication ✓ Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled  
 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 to funnel Cooling Water Pumps, No. and how driven 3 1 each main engine 1 stand by light driven Working F.W. ✓

W ✓ Spare F.W. ✓ S.W. ✓ 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. and capacity 1 on each main engine Can one be overhauled while the other is at work ✓  
 Pumps connected to the Main Bilge Line (No. and capacity of each 1 1000 l/min/90 H.P. 1000 l/min 90 H.P. How driven Electric driven

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 ✓

allast Pumps, No. and capacity 1000 l/min Power Driven Lubricating Oil Pumps, including spare pump, No. and size on each main engine 45 l/min 1 each 1000 l/min electric driven  
 re two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions Section

o. and size:—In machinery spaces 70 70 mm 2 long room, 1 eng. room/cofferdam, 2 in tunnel ✓ In pump room ✓  
 holds, etc. 90 70 mm

irect Bilge Suctions to the engine room bilges, No. and size 100 00 mm  
 re 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

ccessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes Are they fitted with valves or cocks Valves Are they fixed

re all Sea Connections fitted direct on the skin of the Ship on bow Are they fitted with valves or cocks Valves Are they fixed

ufficiently 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  
 re 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 ✓

That pipes pass through the bunkers no (pipe tunnel) How are they protected ✓  
 That pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

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

paces, or from one compartment to another Yes Is the shaft tunnel watertight Yes Is it fitted with a watertight door Yes worked from deck  
 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. one each engine No. of stages ✓ diameters ✓ stroke ✓ driven by ✓  
 Auxiliary Air Compressors, No. 2 Capacity 170 l/min No. of stages 2 diameters 95-110 mm stroke 85 mm driven by Electric driven

Small Auxiliary Air Compressors, No. 1 Capacity 15 l/min No. of stages 2 diameters 75-85 mm stroke 70 mm driven by Emergency engine  
 What provision is made for first charging the air receivers aux. scph engine hand started

scavenging Air Pumps or Blowers, No. ✓ How driven ✓  
 Have they been made under survey Yes Engine Nos. 12629-12630-12630-12603  
 Auxiliary Engines Makers name Thuis Kromhout Rotterdam Position of each in engine room 2 in bow 2 in aft 1 in midship Report No. 10501-10502-10503-10504

23-6  
46



22 JUL 1953

**AIR RECEIVERS:**—Have they been made under survey. *Yes* State No. of report or certificate *Sheffield 1926-9*  
State full details of safety devices. *One springloaded safety valve on each receiver*  
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 + 1* Total cubic capacity. *1 x 600 + 1 x 100* 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. *20-10-51* Pumping arrangements in machinery space. *23-1-53*  
Oil fuel burning arrangements. *✓*  
Have Torsional Vibration characteristics been approved. *Yes* Date and particulars of approval. *20-7-51*

**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 shaft*



The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops - *11-19-51*  
During erection on board vessel - *16-10-51*  
Total No. of visits. *14*

Dates of examination of principal parts—Cylinders. *✓* Covers. *✓* Pistons. *✓* Rods. *✓* Connecting rods. *✓*  
Crank shaft. *✓* Flywheel shaft. *✓* Thrust shaft. *✓* Intermediate shafts. *✓* Tube shaft. *17-15-51*  
Screw shaft. *✓* Propeller. *✓* Stern tube. *10-19-52* Engine seatings. *13-53* Engine holding down bolts. *13-53*  
Completion of fitting sea connections. *11-19-52* Completion of pumping arrangements. *16-53* Engines tried under working conditions. *17-1953*  
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. *✓*

Welded receivers, state Makers' Name. *See Sheffield Certificate*  
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. *One 2 gallon + one 2 gallon fire foam extinguisher, two CO<sub>2</sub> extinguishers, one 10 lb. and 2 lb. with nozzle connected to deck wash line.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. *✓* 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. *no*  
Is this machinery duplicate of a previous case. *Yes* If so, state name of vessel. *H.V. Kinghara*

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

*The machinery of this vessel has been made and fitted in accordance with the approved plans, Secretary's letters and Society's Rules. Materials listed as required and workmanship found good.*  
*Upon completion the machinery have been tried under full working conditions on a 2 days trial trip to the North Sea when all was found to be in a good working and manoeuvring condition and in my opinion merits the approval of the Committee to be recorded with the record of 4 M.C. 7-53 Oil engine C.L. in the Society's Register Book when a satisfactory report of survey upon arrival in Indonesia have been received in London.*

The amount of Entry Fee ... £ *520.00*  
Special ... £ :  
Donkey Boiler Fee... £ :  
Travelling Expenses (if any) £ *132.00*  
When applied for *19*  
When received *19*

Committee's Minute  
Assigned *Deferred for Examination*  
*See Dja Rpt. No 3849*

*H. Hassell*  
Engineer Surveyor to Lloyd's Register of Shipping.

FRIDAY 20 NOV 1953

Lloyd's Register Foundation