

Rpt. 4b

Date of writing report 5.th. March 1957

Received London

Port Amsterdam

No. 21306

Survey held at Alphen a.d. Rijn

No. of visits 4

First date

Last date

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name Gross tons

Owners Managers Port of Registry Year Month

Hull built at Sluiserveer By de Groot en van Vliet Yard No. 317 When

Main Engines made at Alphen a.d. Rijn By Motorenfabriek "De Industrie" Eng. No. 4149 When 1957

Gearing made at By

Donkey boilers made at By Blr. Nos. When

Machinery installed at By When

Particulars of restricted service of ship, if limited for classification

Particulars of vegetable or similar cargo oil notation, if required

Is ship to be classed for navigation in ice? Is ship intended to carry petroleum in bulk?

Is refrigerating machinery fitted? If so, is it for cargo purposes? Type of refrigerant

Is the refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

The following particulars should be given as fully and as clearly as possible. Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the wording is not applicable to the installation, a black line may be inserted. If the main engines have been constructed at another port and are covered by a separate report, the particulars given in that report need not be repeated below, but the port and report number should be stated.

No. of main engines No. of propellers Brief description of propulsion system

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Heavy oil engine type 8 D 70 Nr. 4149

No. of cylinders per engine 8 Dia. of cylinders 305 mm stroke(s) 460 mm 2 or 4 stroke cycle 4 Single or double acting single

Maximum approved BHP per engine 600 at 350 RPM of engine and RPM of propeller

Corresponding MIP 6,8 kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 55 kg/cm² Machinery numeral 120

Are the cylinders arranged in Vee or other special formation? no If so, number of crankshafts per engine

TWO STROKE ENGINES. Is the engine of opposed piston type? If so, how are upper pistons connected to crankshaft?

Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? No. and type of mechanically driven scavenge pumps or blowers per

engine and how driven

No. of exhaust gas driven scavenge blowers per engine Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action?

If a stand-by or emergency pump or blower is fitted, state how driven No. of scavenge air coolers Scavenge air pressure at full

power Are scavenge manifold explosion relief valves fitted?

FOUR STROKE ENGINES. Is the engine supercharged? no Are the undersides of the pistons arranged as supercharge pumps? no No. of exhaust gas driven blowers per

engine none No. of supercharge air coolers per engine Supercharge air pressure Can engine operate without supercharger?

TWO & FOUR STROKE ENGINES—GENERAL. No. of valves per cylinder: Fuel 1 Inlet 1 Exhaust 1 Starting 1 Safety 1

Material of cylinder covers cast iron Material of piston crowns cast iron Is the engine equipped to operate on heavy fuel oil? no

Cooling medium for :—Cylinders water Pistons none Fuel valves none Overall diameter of piston rod for double acting engines

Is the rod fitted with a sleeve? Is welded construction employed for: Bedplate? no Frames? no Entablature? no Is the crankcase separated from the

underside of piston? no Is the engine of crosshead or trunk piston type? trunk Total internal volume of crankcase 4,8 m³ No. and total area of explosion reliefdevices 8-236 cm² Are flame guards or traps fitted to relief devices? yes Is the crankcase readily accessible? yes If not, must the engine be removed for

overhaul of bearings, etc? no Is the engine secured directly to the tank top or to a built-up seating? How is the engine started? by air

Can the engine be directly reversed? yes If not, how is reversing obtained?

Has the engine been tested working in the shop? yes How long at full power? 12 hours

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 1-6-56 State barred speed range(s), if imposed

for working propeller none For spare propeller none Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? no

Where positioned? Type No. of main bearings Are main bearings of ball or roller

type no Distance between inner edges of bearings in way of crank 353 mm Distance between centre lines of side cranks or eccentrics of opposed piston engines

Crankshaft type: Built, semi-built, solid. (State which) solid

Diameter of journal 230 mm Diameter of crankpins 210 mm Breadth of webs at mid-throw 310 mm Axial thickness of webs 100 mm

If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material Journals 50, 2 kg/mm² Approved 50, 2 kg/mm²

Webs Steel Tensile strength

Diameter of flywheel 1130 mm Weight 1500 kg Are balance weights fitted? no Total weight Radius of gyration

Diameter of flywheel shaft Material Minimum approved tensile strength

Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) Bolted to flange on after end crankshaft

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Lloyd's Register
Foundation

GENERAL REMARKS

State if the machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and give recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

This engine has been built under Special Survey in accordance with approved plans, Secretary letters and Society Rules.

Materials tested as required and workmanship found good.

The engine has been tested under full load condition on makers testbed and found functioning satisfactorily

Copy certs. Amsterdam Nr. 57/28 of crankshaft and Salzburg 00211+00273 of connecting rods added.

This engine merits in my opinion the approval of the Committee.

After testing and inspection the engine is shipped to Scheepswerf de Groot & van Vliet, Sluiserveer Yard 317

C van der Linden
C van der Linden , Engineer Surveyor to Lloyd's Register of Shipping.

PARTICULARS OF IDENTIFICATION MARKS ((Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

RODS Connectingrods : 7160 W Se 27-1-56
Lloyds SZB
7056-7901-7919-7920-7952-7985-8003
PER 10 -8 - 56

CRANKSHAFT OR ROTORSHAFT: Lloyds Rott. No. 486
END 1-3-56
FLYWHEEL SHAFT CL 29-12-56

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS

Is the installation a duplicate of a previous case? If so, state name of vessel

Date of approval of plans for crankshaft 6-6-56 Straight shafting Gearing Clutch

Separate oil fuel tanks Pumping arrangements Oil fuel arrangements

Cargo oil pumping arrangements Air receivers Donkey boilers

Dates of examination of principal parts:—

Fitting of stern tube Fitting of propeller Completion of sea connections Alignment of crankshaft in main bearings 29-12-56

Engine chocks & bolts Alignment of gearing Alignment of straight shafting Testing of pumping arrangements

Oil fuel lines Donkey boiler supports Steering machinery Windlass

Date of Committee FRIDAY 12 JUL 1957 Special Survey Fee £ 440.-

Decision See Rpt. 1.

Expenses £ 24.-

Date when A/c rendered

13/3/58