

Rpt. 4b

Date of writing report 26.11.1957 Received London 12 DEC 1957 Port H a m b u r g No. 6107
 Survey held at Hamburg No. of visits 12 In shops 4.11.1956 First date 22.11.1957 Last date ---
 On vessel ---

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. _____ Name _____ Gross tons _____
 Owners Malabar Steamship Co. Managers _____ Port of Registry _____
 Hull built at Bruges, Belgium By Société d'Exploitation des Chantiers Navals de Bruges Yard No. 3415 When _____
 Main Engines made at Hamburg By Maschinenfabrik Augsburg-Nürnberg Eng. No. 405 209 When 57.11
 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 1 No. of propellers 1 Brief description of propulsion system One diesel engine single reduction geared to one screwshaft

MAIN RECIPROCATING ENGINES. Licence Name and Type No. MAN Type G 8 V 40/60 (with supercharging)

No. of cylinders per engine 8 Dia. of cylinders 400 mm stroke(s) 600 mm 2 or 4 stroke cycle 4 Single or double acting single

Maximum approved BHP per engine 1680 at 275 RPM of engine and --- RPM of propeller.

Corresponding MIP 9,1 kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 62 kg/cm² Machinery numeral 336

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? yes Are the undersides of the pistons arranged as supercharge pumps? no No. of exhaust gas driven blowers per engine one No. of supercharge air coolers per engine none Supercharge air pressure 0,47 kg/cm² Can engine operate without supercharger? yes

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 aluminium - alloy Is the engine equipped to operate on heavy fuel oil? no

Cooling medium for:—Cylinders fresh water pistons not cooled Fuel valves fuel Overall diameter of piston rod for double acting engines none

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

underside of pistons? no Is the engine of crosshead or trunk piston type? piston trap Total internal volume of crankcase 9,6 m³ No. and total area of explosion relief

devices 8 x 245 cm² Are flame guards or traps fitted to relief devices? valves Is the crankcase readily accessible? yes If not, must the engine be removed for

overhaul of bearings, etc? --- Is the engine secured directly to the tank top or to a built-up seating? --- How is the engine started? compr. 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? 5 hours

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 1.10.1957 State barred speed range(s), if imposed

for working propeller --- For spare propeller --- Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? yes

Where positioned? forw. end of crankshaft Type Huelsenfeder No. of main bearings 10 Are main bearings of ball or roller

type? no Distance between inner edges of bearings in way of crank(s) 514 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 journals 280 mm Diameter of crankpins Centre 280 mm Breadth of webs at mid-throw 465 mm Axial thickness of webs 140 mm

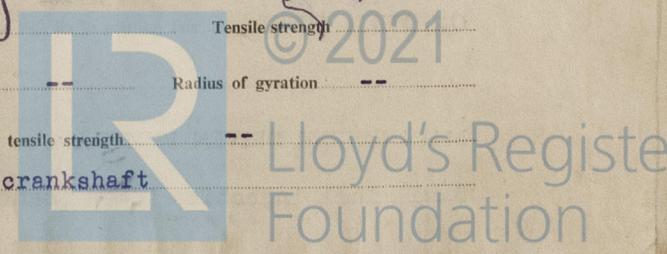
If shrunk, radial thickness around eyeholes solid forged Are dowel pins fitted? --- Crankshaft material Journals } SM Steel Approved 50 kg/mm²

Diameter of flywheel 1500 mm Weight 2350 kgs Are balance weights fitted? no Total weight --- Radius of gyration ---

Diameter of flywheel shaft none Material --- Minimum approved tensile strength ---

Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) Flywheel flanged to crankshaft

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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 constructed under Special Survey in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters. The Materials and Workmanship are good. This engine has been examined during construction and under working conditions on the Makers' test bed and is eligible in my opinion to have the record #LMC (with date) after satisfactory installation on board the above ship.

E. Allen
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 Connecting rods: LLOYD'S AUG. B. A. 1, 18. 9. 1957 G. H.

CRANKSHAFT OR ROTORSHAFT LLOYD'S HAM 302 30. 9. 1957 E. A. ✓

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS Bed plate: LLOYD'S HAM 381 15. 5. 1957 RFK

Supercharge Blower: LLOYD'S TEST AUG. 1615 16. 8. 1957 G. H.

Is the installation a duplicate of a previous case?

If so, state name of vessel

Date of approval of plans for crankshaft 21. 3. 57

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. 3. 10. 57

Engine checks & bolts

Alignment of gearing

Alignment of straight shafting

Testing of pumping arrangements

Oil fuel lines

Donkey boiler supports

Steering machinery

Windlass

Date of Committee

TUESDAY 26 AUG 1958

Special Survey Fee

DM 1645,-

Decision

See Rpt. 1.

Test bed trial

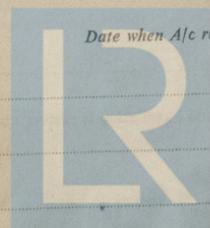
DM 100,-

Expenses

DM 60,-

Date when A/c rendered

426559
9-12-57



Lloyd's Register Foundation

Rpt. 40

Date of writing

Survey held at

FI

Name of Ship

(Or Contract)

Ship Built at

Auxiliary Engine

Total No. of

INTERNAL

2 or 4 stroke

Fuel Ga.

crankshafts

per engine

used for Be

crankcase ex

Pistons

SHAFTING

inner edges

minimum ten

thickness

weights fitted

Has each en

governing te

Date of app

Particulars

Port and No

AUXILIAR

Arrangement

(A small diagram

attached showing

No. of air co

Material of

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Date of app

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Declaration

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