

Rpt. 4b

Date of writing report 29.10.59 Received London \_\_\_\_\_ Port HAMBURG No. 8052  
 Survey held at HAMBURG No. of visits In shops 14 First date 1.4.59 Last date 26.10.59  
 On vessel \_\_\_\_\_

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. \_\_\_\_\_ Name \_\_\_\_\_ Gross tons \_\_\_\_\_  
 Owners \_\_\_\_\_ Managers \_\_\_\_\_ Port of Registry \_\_\_\_\_ Year Month \_\_\_\_\_  
 Hull built at Papenburg/Ems By Jos. L. Meyer Yard No. 499 When \_\_\_\_\_  
 Main Engines made at Hamburg By Masch. Augsburg-Nürnberg AG. Eng. No. 405 349 When \_\_\_\_\_  
 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, direct coupled to one screw shaft

MAIN RECIPROCATING ENGINES. Licence Name and Type No. MAN Type G8V 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 275 RPM of propeller.

Corresponding MIP 10.5 kg/cm<sup>2</sup> (For DA engines give MIP top & bottom) Maximum cylinder pressure 62 kg/cm<sup>2</sup> 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 1 No. of supercharge air coolers per engine none Supercharge air pressure 0.4 kg/cm<sup>2</sup> 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? no Frames? no Entablature? - Is the crankcase separated from the

underside of pistons? no Is the engine of crosshead or trunk piston type? trunk piston Total internal volume of crankcase 9.6 m<sup>3</sup> No. and total area of explosion relief

devices 8 with 1960 cm<sup>2</sup> Are flame guards or traps fitted to relief devices? trap valves 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? compressed 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? 4 hours, full load, 1 hr. 10% overload 23.10.59

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 5.3.59 State barred speed range(s), if imposed

for working propeller below 85rpm For spare propeller below 85 rpm Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? yes

Where positioned? fwd. 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

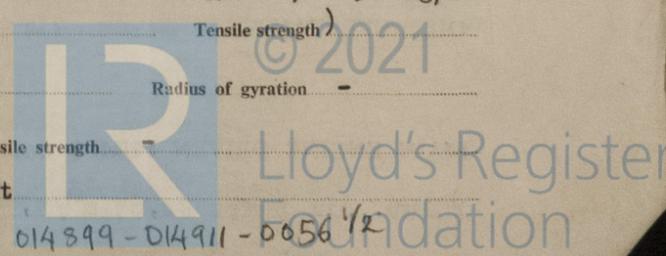
Diameter of journals 280 mm Diameter of crankpins Centre 280 mm Breadth of webs at mid-throw 465 mm Axial thickness of webs 140 mm

If shrunk, radial thickness around eyeholes solid Are dowel pins fitted? - Crankshaft material Pins } SM-Steel Minimum } 50 kg/mm<sup>2</sup>

Diameter of flywheel 1500 mm Weight 2350 kg 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) integral with crankshaft



Handwritten notes: 3.1.60, 6/5/60



**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 accordance with the Society's Rules and Regulations, the approved plans and the Secretary's letters. The materials and workmanship are good. The engine has been examined during construction and under working conditions on completion and is eligible, in my opinion, to be recommended for classification with the distinguishing mark  $\frac{R}{S}$  after satisfactory installation and trials on board the above ship.

*Richard [Signature]*  
 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. BA 40 GH 1.9.59 ✓  
 CRANKSHAFT OR CRANKPINS Lloyd's Aug. BA 40 HKa 10.9.59 ✓  
 FLYWHEEL SHAFT  
 THRUSTSHAFT Lloyd's Dtg. 159 HD 8.1.58, Ham 2.6.58 AK ✓  
 GEARING  
 INTERMEDIATE SHAFTS Lloyd's Kln. 2621 AD 2.7.59 ✓  
 SCREW AND TUBE SHAFTS  
 PROPELLERS  
 OTHER IMPORTANT ITEMS Supercharge blower, MAN No. 2126 <sup>2106</sup> ✓  
 Lloyd's Test Aug. 12227 GH 14.8.59 ✓

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 30.9.59  
 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 - 6 MAY 1960  
 Decision See Rpt. 1. *[Signature]* Special Survey Fee DM 1.645,-  
 Test bed trial DM 100,-  
 Expenses 112,-

Date when A/c rendered H.C. 9834 3-12-59

