

pt. 4b

Ship and name of writing report 12.9.60 Received London Port HAMBURG No. 9854  
Survey held at Hamburg No. of visits In shops 15 First date 12.7.60 Last date 30.8.60  
On vessel -

# FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

Condition in R.B. Name Gross tons  
M.C. Managers Port of Registry Year Month  
Built at Zaltbommel By Scheepswerf DE Waal Yard No. 670 ✓ When  
Engines made at Hamburg By Maschinenfabrik Augsburg-Nürnberg Eng. No. 405 304 ✓ When 60 8  
Firing made at By  
Key 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  
Ship to be classed for navigation in ice? Is ship intended to carry petroleum in bulk?  
Refrigerating machinery fitted? If so, is it for cargo purposes? Type of refrigerant  
Refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

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 fitting 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

Number of main engines 1 No. of propellers 1 Brief description of propulsion system 1 diesel engine direct coupled to 1 screwshaft

INTERNAL 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  
Minimum approved BHP per engine 1820 ✓ at 300 ✓ RPM of engine and 300 ✓ RPM of propeller.  
Corresponding MIP 10,2 kg/cm<sup>2</sup> (For DA engines give MIP top & bottom) Maximum cylinder pressure 62 kg/cm<sup>2</sup> Machinery numeral 364  
Are the cylinders arranged in Vee or other special formation? no If so, number of crankshafts per engine -

STROKE ENGINES. Is the engine of opposed piston type? - If so, how are upper pistons connected to crankshaft? -  
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 -  
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? -  
Stand-by or emergency pump or blower is fitted, state how driven - No. of scavenge air coolers - Scavenge air pressure at -  
Are scavenge manifold explosion relief valves fitted? -

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 1 Supercharge air pressure 0,4 kg/cm<sup>2</sup> Can engine operate without supercharger? yes

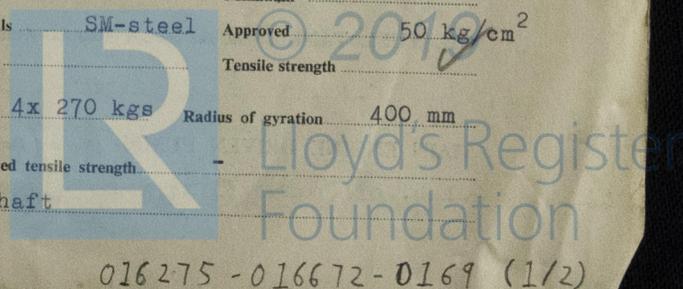
FOUR STROKE ENGINES—GENERAL. No. of valves per cylinder: Fuel 1 Inlet 1 Exhaust 1 Starting 1 Safety ✓  
Material of cylinder covers cast iron Material of piston crowns aluminium alloy Is the engine equipped to operate on heavy fuel oil? no  
Lubricating medium for: Cylinders fresh water Pistons lub. oil Fuel valves fuel Overall diameter of piston rod for double acting engines none  
Piston rod fitted with a sleeve? - Is welded construction employed for: Bedplate? no Frames? no Entablature? - Is the crankcase separated from the base 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 valves 8 with 1960 cm<sup>2</sup>  
Are flame guards or traps fitted to relief devices? trap- Is the crankcase readily accessible? yes If not, must the engine be removed for access to valves  
Is the engine secured directly to the tank top or to a built-up seating? - How is the engine started? compressed air

Can engine be directly reversed? yes If not, how is reversing obtained? -  
Has engine been tested working in the shop? yes How long at full power? 5 hours full load, 2 hours 10% overload, 29.8.60

FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 28.7.60 State barred speed range(s), if imposed  
No. of propeller 170-205 For spare propeller 170-205 Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? yes  
Positioned? fwd. end of crankshaft Type Huelsenfeder No. of main bearings 10 Are main bearings of ball or roller type? -  
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 -

Shaft 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  
Radial thickness around eyeholes - Are dowel pins fitted? - Crankshaft material Journals SM-steel Approved 50 kg/cm<sup>2</sup>  
Webs Tensile strength  
Diameter of flywheel 1660 mm Weight 3130 kgs Are balance weights fitted? yes Total weight 4x 270 kgs Radius of gyration 400 mm  
Material of flywheel shaft none Material - Minimum approved tensile strength -

Shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) integral with crankshaft



482 Y  
GWP  
18.10.60

DEC. 1960



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, under working conditions on the Makers' Test Bed, and is eligible in my opinion to be recommended for classification with the distinguishing mark \* after installation in the above ship and when satisfactory trials have been carried out.

Notice Board To BE FITTED AT CONTROL STATION. STATING ENGINE IS NOT TO BE OPERATED CONTINUOUSLY BETWEEN 170 & 205 R.H.M. & THE TACHOMETER TO BE MARKED ACCORDINGLY

*[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 66 GM 24.7.60  
 CRANKSHAFT OR ROTOR SHAFT Lloyd's Ham 638 RPK 27.7.60  
 FLYWHEEL SHAFT  
 THRUST SHAFT  
 GEARING  
 INTERMEDIATE SHAFTS Lloyd's Mhm 60646/56 K 15.7.60 KS  
 SCREW AND TUBE SHAFTS  
 PROPELLERS  
 OTHER IMPORTANT ITEMS Supercharge Blower:- Lloyd's Test Aug. 14801 Hka  
 MAN No. 1955

Is the installation a duplicate of a previous case? ..... If so, state name of vessel .....  
 Date of approval of plans for crankshaft 18.3.57. 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 1.8.60  
 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 17 FEB 1961  
 Decision See Rpt. 1.

Special Survey Fee DM 1815,-  
 Test bed trials DM 100,-  
 Expenses DM 120,-

