

Rpt. 4c

Date of writing report 31st January, 1964

Received London

Port of Augsburg

No. 1747

Survey held at Augsburg

No. of visits 11

First date 20th Feb. 63

Last date 21st January, 1964

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship (Or Contract No. if name unknown) Owners (Or Consignees) Ship Built at Genoa by Societa Ansaldo SpA. when 1963 Yard No. 1595 Auxiliary Engines or Gas Turbines made at Augsburg by M.A.N. A.G. when 1963/4 Eng. Nos. 303099 Total No. of sets and description (including type name) W8V17.5/22A supercharged

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 8 Dia. of cylinders 175 mm Stroke 220 mm 2 or 4 stroke cycle 4 Maximum approved BHP 305 at 750 RPM Corresponding MIP 10.35 kg/cm2 Maximum pressure 75 kg/cm2 Fuel gas oil Are cylinders arranged in Vee or other special formation? no Is engine of opposed piston type? no No. and type of mechanically driven scavenge pumps or blowers used for: Bedplate? Entablature? Total internal volume of crankcase (if 20 cu. ft. or over) 0.665 m3 Is welded construction crankcase explosion relief devices 2; 80 cm2 each Are flame guards or traps fitted? no Cooling medium for: Cylinders water Pistons No. of attached pumps: F.W. cooling 1 S.W. cooling Lubricating oil 1 How is engine started? by air

SHAFTING. Is a damper or detuner fitted? yes No. of main bearings 9 Are bearings of ball or roller type? Distance between inner edges of bearings in way of cranks 250 mm Crankshaft: solid Material of crankshaft S.M. Steel, 34CrMo4 Approved minimum tensile strength 80 kg/mm2 Dia. of pins 105 mm Journals 105 mm Breadth of webs at mid throw 178 mm Axial thickness 42 mm If shrunk, radial thickness around eyeholes Dia. of flywheel 800 mm Weight 394 kgs. Are balance weights fitted? yes Total weight 60 kgs Rad. of gyration 110 mm Dia. of flywheel shaft Has each engine been tested in shop? yes How long at full power? 5 hrs. Was it tested with driven machinery attached? no governing tested and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 17.9.1963 Date of approval of shafting 10.2.49 Identification marks on shafting LLOYD'S AUG D024/4431 C510699 H.K.S. 8.1.63 Particulars of driven machinery

Port and No. of Certificate for Starting Air Receivers none

AUXILIARY GAS TURBINES. BHP per set At RPM of output shaft. Open or closed cycle? Arrangement of turbines. HP drives at RPM HP gas inlet temp. pressure (A small diagram should be attached showing gas cycle) IP " at " IP " " " LP " at " LP " " " No. of air compressors per set Centrifugal or axial flow type? Material of turbine blades Material of compressor blades No. of air coolers per set No. of heat exchangers per set How are turbines started? Are the turbines operated in conjunction with free piston gas generators? Total No. of free piston gas generators Dia. of working pistons Dia. of compressor pistons No. of double strokes per minute at full power Gas delivery pressure Gas delivery temperature Have the turbines and attached equipment been tested in shop? How long at full power? Were they tested with driven machinery attached? Particulars of gearing Particulars of driven machinery Date of approval of plans Identification marks

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached?

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)

Maschinenfabrik Augsb.-Nürnberg A.G. Manufacturer

Is this machinery duplicate of a previous case? yes If so, which? Yard Nos. 1593, 1594

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible. This generator engine has been built 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 completion, governor trials carried out with satisfactory results and are eligible in my opinion to be installed in a ship classed with this Society.

Survey Fee DM 409.50 Best expenses 100.- 15.- DM 564.50 Date when a/c rendered 7.2.1964

Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the in a proper manner and found satisfactory when tested on the (date) under full working conditions.

