

Rpt. 4c

Date of writing report 15th June, 59

Received **12/AUG 1959**

Port of Augsburg No. 1259

30 DEC 1959

Survey held at Augsburg

No. of visits 10

First date 2nd March, Last date 27th May, 1959

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship - Owners -
 (Or Contract No. if name unknown) (Or Consignees)
 Ship Built at Turku / Finland by Valmet Oy when 1959 Yard No. 242
 Auxiliary Engines or Gas Turbines made at Augsburg by M. A. N. AG. when 1959 Eng. Nos. 301 757-59
 Total No. of sets and description (including type name) 3 x W8V17,5/22A

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 214 at 750 RPM Corresponding MIP 7.71 kg/cm² Maximum pressure 60 kg/cm²
 Fuel gas oil Are cylinders arranged in Vee or other special formation? no If so, No. of
 crankshafts per engine - Is engine of opposed piston type? - No. and type of mechanically driven scavenge pumps or blowers
 per engine - No. of exhaust gas driven blowers or superchargers per engine - Is welded construction
 used for: Bedplate? - Entablature? - Total internal volume of crankcase (if 20 cu. ft. or over) 0,665 m³ No. and total area of
 crankcase explosion relief devices 2; 80 cm² each Are flame guards or traps fitted? - 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
18 m²/h 5 m³/h

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: rotic sandcast, solid. Material of crankshaft 34 CrMo 4; SM Steel 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 520 kgs. Are balance
 weights fitted? yes Total weight 40 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? yes Was the
 governing tested and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 17.7.59
 Date of approval of shafting 10.2.49 Identification marks on shafting LLOYD'S AUG AD4/4 883879 HKS 11.7.58 base 449 A
 Particulars of driven machinery LLOYD'S HAM 59/1518 LLOYD'S AUG AD4/6 883881 HKS 11.7.58
59/1517, LLOYD'S AUG AD4/5 883880 HKS 11.7.58
59/1516
 Port and No. of Certificate for Starting Air Receivers 1 x 125 ltrs. Augsburg Report No. 59/1138

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 -
 Date of approval of plans - Identification marks - Particulars of driven machinery -

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? - If so, which? -

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.
 These heavy oil auxiliary engines have been constructed under special survey in accordance with the require-
 ments of the Rules and otherwise with the approved plans. The material used in the construction was tested
 and the workmanship was found satisfactory. The engines were tested running on makers' test bed under full-
 over-, and partial loads with satisfactory results. In my opinion the engines can be recommended for the
 notation L.M.C. (with date) when the whole machinery has been satisfactorily fitted on board and tried
 under full working conditions.

Running test 300.-
 Survey Fee DM 825.-
 frame 120.-
 Expenses 18.- Total DM 1.263.-
 Date when a/c rendered 7.8.1959

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 M.V. HALMAHERA
 at ÅBO/TURKU in a proper manner and found satisfactory when tested on the (date) 10/11/18/10/59 under full working conditions.
 FINLAND

Engineer Surveyor to Lloyd's Register

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