

Rpt. 4c

MONDAY 12 MAR 1958

Date of writing report 15th Febr. 1958 Received London - Port of Augsburg No. 1068
Survey held at Augsburg No. of visits 19 First date 23rd Sept. Last date 28th Nov. 1957

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship (Or Contract No. if name unknown) Owners (Or Consignees)
Ship Built at Gävle/Sweden by A/B Gävle Varv when 1957/8 Yard No. 99
Auxiliary Engines or Gas Turbines made at Augsburg by Messrs. M.A.N. AG. when 1957 Eng. Nos. 400 845, 401 175/6
Total No. of sets and description (including type name) 3 x G5V23, 5/33

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 5 Dia. of cylinders 235 mm Stroke 330 mm
2 or 4 stroke cycle 4 Maximum approved BHP 255 at 600 RPM Corresponding MIP 6.9 kg/cm2 Maximum pressure 50 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 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) - No. and total area of
crankcase explosion relief devices - Are flame guards or traps fitted? no Cooling medium for: Cylinders water
Pistons - No. of attached pumps: F.W. cooling - S.W. cooling - Lubricating oil 4.3 m3/h How is engine started? by air

SHAFTING. Is a damper or detuner fitted? yes No. of main bearings 6 Are bearings of ball or roller type? no Distance between
inner edges of bearings in way of cranks 284 mm Crankshaft Built, semi-built, solid Material of crankshaft SM Steel C40 Approved
minimum tensile strength 55 kg/cm2 Dia. of pins 152 mm Journals 152 mm Breadth of webs at mid throw 273 mm Axial
thickness 73.5 mm If shrunk, radial thickness around eyeholes - Dia. of flywheel 1200 mm Weight 1100 kgs. Are balance
weights fitted? no Total weight - Rad. of gyration - Dia. of flywheel shaft -
Has each engine been tested in shop? yes How long at full power? 6 h 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) 23.4.1958
Date of approval of shafting 19.8.55 Identification marks on shafting LLOYD'S AUG 2996/5843 C 25.10.57 HKS
Particulars of driven machinery LLOYD'S AUG 2997/2695 B 6.11.57 GH
LLOYD'S AUG 2998/7577 A 6.11.57 GH

Port and No. of Certificate for Starting Air Receivers 1 x 125 ltrs. Cert. No. 8673
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
IP " " " " " "
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 Hamburg Nos. 206, 218, 219
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 Augsburg-Nürnberg A.G.
This machinery duplicate of a previous case? no 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.
The quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.
The heavy oil aux. engines have been constructed under special survey in accordance with the requirements 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.

Draft 165.-
Registry Fee DM 975.-
Name 120.-
Expenses 50.-
Total DM 1.490.-
When a/c rendered 2.5.1958

Signature of Engineer Surveyor to Lloyd's Register
M/S 'PAMIR' (YARD NR 99)
Signature of Engineer Surveyor to Lloyd's Register