

Rpt. 4c

24 OCT 1957

Date of writing report 19th Sept. 1957

Received London

Port of Augsburg

No. 985

Survey held at Munich

No. of visits two

First date 28th August Last date 12th September 1957

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship Owners
Or Contract No. if name unknown (Or Consignees)
Ship Built at Helsinki Finland by Sandvikens Docka when - Yard No. 3223 14
Auxiliary Engines or Gas Turbines made at München by Süddeutsche Bremsen A.G. when 1957 Eng. Nos. 95392/95393
Total No. of sets and description (including type name) heavy oil engine makers' Type 2 x RHS 518 D

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 3 Dia. of cylinders 140 mm Stroke 180 mm
2 or 4 stroke cycle 4 Maximum approved BHP 87 PS at 1500 RPM Corresponding MIP 7.48 kg/cm² Maximum pressure 60 kg/cm²
Fuel Diesel or Marine Are cylinders arranged in Vee or other special formation? no If so, No. of
crankshafts per engine fuel oil --- 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? no Entablature? - Total internal volume of crankcase (if 20 cu. ft. or over) 90 ltrs. No. and total area of
crankcase explosion relief devices - 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? electric

SHAFTING. Is a damper or detuner fitted? no No. of main bearings 4 Are bearings of ball or roller type? no Distance between
inner edges of bearings in way of cranks 136 mm Crankshaft: Built, semi-built, solid. Material of crankshaft 37 Cr 4 SM Steel Approved
minimum tensile strength 85 kg/mm² Dia. of pins 100 mm Journals 115 mm Breadth of webs at mid throw 152 mm Axial
thickness 32 mm If shrunk, radial thickness around eyeholes - Dia. of flywheel 590 mm Weight 103 kgs. Are balance
weights fitted? yes 4 Total weight 25 kgs. Rad. of gyration 106.5 mm Dia. of flywheel shaft -
Has each engine been tested in shop? yes How long at full power? 4 h Was it tested with driven machinery attached? no Was the
governing tested and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) not applicable
Date of approval of shafting 3.2.1951 Identification marks on shafting Eng. Nos.: 95392 = 792036/317 Eng. Nos.: 95393 = 792032/313
Particulars of driven machinery LLOYD'S AUG C 81 W. Se. 16.5.57

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 ,, ,, ,, ,, ,, ,,
(A small diagram should be attached showing gas cycle)
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)
Süddeutsche Bremsen A.G. München
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 requirements of the Rules and otherwise with the approved plans. The material used in the construction is good and
the workmanship was found to be 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.

Survey Fee DM 262.-
Expenses 70.- Total DM 376.-
Date when a/c rendered 4.10.1957
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.

EINLAGE Nr. 448

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