5830

L.R. 856

Rpt. 4c

31. MAY 1962

Date of writing report 9.5.62 Received London ..... Port Köln No. 716

Survey held at Köln-Deutz No. of visits 6 First date 19.1.62 Last date 28.2.62

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship B.N. 1.8626.0.0014 (Or Contract No. if name unknown). Owners Ad. Strüver, Hamburg (Or Consignees)

Ship Built at – by – when – Yard No. –

Auxiliary Engines or Gas Turbines made at Köln-Deutz by Klöckner-Humboldt-Deutz AG when 2.62 Eng. Nos. 3175027-032

Total No. of sets and description (including type name) one airless injection heavy oil V6M 536

INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 6 ✓ Dia. of cylinders 270 mm ✓ Stroke 360 mm ✓

2 or 4 stroke cycle 4 ✓ Maximum approved BHP 375 ✓ at 500 ✓ RPM Corresponding MIP 6.56 kg/cm² Maximum pressure 60 kg/cm²

Fuel Diesel 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? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) 1.5 m³ ✓ No. and total area of

crankcase explosion relief devices 3, area 285 cm2 ✓ Are flame guards or traps fitted? yes Cooling medium for: Cylinders water

Pistons – No. of attached pumps: F.W. cooling – S.W. cooling – Lubricating oil one How is engine started? with air

SHAFTING. Is a damper or detuner fitted? no No. of main bearings 8 Are bearings of ball or roller type? – Distance between

inner edges of bearings in way of cranks 284 mm ✓ Crankshaft: Built, semi-built, solid. ✓ Material of crankshaft SM. steel Approved

minimum tensile strength 65 kg/mm2 ✓ Dia. of pins 165 mm ✓ Journals 165 mm ✓ Breadth of webs at mid throw 300 mm Axial

thickness 75 mm ✓ If shrunk, radial thickness around eyeholes – Dia. of flywheel 1000 mm Weight 1025 kg Are balance

weights fitted? no Total weight – Rad. of gyration – Dia. of flywheel shaft – water brake

Has each engine been tested in shop? yes ✓ How long at full power? 6 hours ✓ Was it tested with driven machinery attached? Was the

governing tested and found satisfactory? yes ✓ Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) 2.6.58

Date of approval of shafting 18.2.55 Identification marks on shafting LLOYD'S KLN 471 H.L. 12.12.61 ✓

Particulars of driven machinery unknown

Port and No. of Certificate for Starting Air Receivers –

P.S.
If this engine is fitted on a classed vessel, full particulars of the whole dynamic system will require to be submitted for approval of the T.V.C's.

AUXILIARY GAS TURBINES. BHP per set – At – RPM of output shaft. Open or closed cycle? –

Arrangement of turbines. (A small diagram should be attached showing gas cycle)

HP drives – at – RPM HP gas inlet temp. – pressure –

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)

Klöckner-Humboldt-Deutz Aktiengesellschaft Manufacturer

Is this machinery duplicate of a previous case? yes If so, which? KLN. Rpt. 690, Engine No. 2998639

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 engine has been constructed under special survey of tested materials and is in accordance with the Secretary's letters, approved plans and Rules Requirements. The materials and workmanship are good and the engine, when tested in the shops under full and overload conditions was found to function satisfactorily. This engine, in my opinion, is suitable for installation in a vessel classed with this Society.

Survey Fee DM 425.-
RT Expenses DM 100.-
DM 52.-
Date when a/c rendered A/C KLN. 5336 dd. 20.3.62

H. Dröge
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 ..... at ..... in a proper manner and found satisfactory when tested on the (date) ..... under full working conditions.

Engineer Surveyor to Lloyd's Register

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