

L.R. 582c

Rpt. 4c

Date of writing report 15.2.60 Received London Port Köln No. 522

Survey held at Köln-Deutz No. of visits 8 First date 4.11.59 Last date 21.12.59

FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship H.D. 1.8627.0.0003 Owners Ad. Strüver, Hamburg
Ship Built at by when Yard No.
Auxiliary Engines or Gas Turbines made at Köln-Deutz by Klöckner-Humboldt-Deutz AG when 12.59 Eng. Nos. 2535340-45
Total No. of sets and description (including type name) one airless injection heavy oil BV6M 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 600 at 500 RPM Corresponding MIP 9.94 kg/cm Maximum pressure 6.4 kg/cm2
Fuel Diesel Are cylinders arranged in Vee or other special formation? no If so, No. of
crankshafts per engine none Is engine of opposed piston type? no No. and type of mechanically driven scavenge pumps or blowers
per engine none No. of exhaust gas driven blowers or superchargers per engine 3 one Is welded construction
used for: Bedplate? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) 1.5 m No. and total area of
crankcase explosion relief devices 3, area 285cm2 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 Carbon steel Approved
minimum tensile strength 36 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 454 B
governing tested and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) are in preparation 22/12/59
Date of approval of shafting 18.2.55 Identification marks on shafting LLOYD'S KLN. 1892 HD 27.10.58
Particulars of driven machinery unknown

Port and No. of Certificate for Starting Air Receivers HNO.C. 59/569

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 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 Particulars of driven machinery

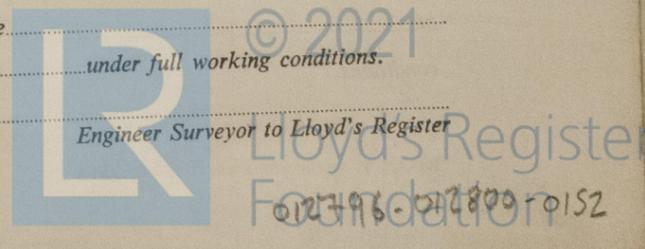
ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over
For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached?

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? Engine No. 2515074-79, KLN. Report 511

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 condition, was found to function satisfactorily. This engine, in my
opinion, is suitable for installation in a vessel classed with this Society.
This engine is supercharged with one exhaust gas driven blower No. B 38060.

Survey Fee 617.-
RT 100.-
Expenses 72.-
Date when a/c rendered 8.1.60 A/C R 3291
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
under full working conditions.
at in a proper manner and found satisfactory when tested on the (date)
Engineer Surveyor to Lloyd's Register



Rpt. 4c

Date of writing report

Received London

Port

No.

Survey held at

No. of visits

First date

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FIRST ENTRY REPORT ON AUXILIARY STEAM TURBINE OR STEAM RECIPROCATING ENGINES

Name of Ship
(Or Contract No. if name unknown)

Owners
(Or Consignees)

Ship Built at

Yard No.

Auxiliary turbines or engines made at

Eng. Nos.

Total No. of sets and description

STEAM TURBINES.

No. of turbines per set

BHP per set

Steam pressure

Steam temperature

Type of turbines

Particulars of gearing

RPM of turbine shaft(s)

PCD of pinion(s)

PCD of wheel(s)

Material of

pinion(s)

Material of wheel rim(s)

Has rotor been dynamically balanced?

Diameter of rotor

shaft at bearings

Does the set include a steam condenser?

Is an emergency governor fitted?

No. and purpose of

attached pumps

Was the governing tested and found satisfactory?

Has the set been tested in the shop?

If so, for how long at full

power?

Was the governing tested and found satisfactory?

Was the set tested with driven machinery attached?

Identification marks

Particulars of driven machinery

STEAM RECIPROCATING ENGINES.

BHP of each

at

RPM Steam pressure

Dia. of cylinders

Stroke

Dia. of crankshaft journals

Pins

Material of

crankshaft

Is crankcase enclosed?

If so, is the internal volume 20 cu. ft. or over?

No. and total area of crankcase

explosion relief devices fitted?

Are the bearings forced lubricated?

No. and purpose of attached pumps

Particulars of Driven Machinery

Is a Governor Fitted?

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.

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.

Survey Fee
Expenses
Date when a/c rendered

Engineer Surveyor to Lloyd's Register

1961 APR 11

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.