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# FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

ip H.D. 23347013  
ct No. if name unknown).  
Owners Joh. Grodtmann, Hamburg  
(Or Consignees)  
by when Yard No.  
Engines or Gas Turbines made at Köln-Deutz by Klöckner-Humboldt-Deutz AG. when 12.56 Eng. Nos. 37837  
of sets and description (including type name) one airless injection heavy oil A2L 514  
COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 2 Dia. of cylinders 110 mm Stroke 140 mm  
e cycle 4 Maximum approved BHP 25 at 1500 RPM Corresponding MIP 6.77 kg/cm<sup>2</sup> Maximum pressure 70 kg/cm<sup>2</sup>  
iesel Are cylinders arranged in Vee or other special formation? no If so, No. of  
per engine Is engine of opposed piston type? no No. and type of mechanically driven scavenge pumps or blowers  
one cooling blower No. of exhaust gas driven blowers or superchargers per engine none Is welded construction  
dplate? no Entablature? no Total internal volume of crankcase (if 20 cu. ft. or over) 39 litres No. and total area of  
xplosion relief devices none Are flame guards or traps fitted? no Cooling medium for: Cylinders air  
none No. of attached pumps: F.W. cooling S.W. cooling Lubricating oil one How is engine started? with hand

Is a damper or detuner fitted? no No. of main bearings 2 Are bearings of ball or roller type? no Distance between  
of bearings in way of cranks 216 mm Crankshaft: Built, semi-built, solid Material of crankshaft Chr.-Steel Approved  
nsile strength 80 kg/mm<sup>2</sup> Dia. of pins 75 mm Journals 75 mm Breadth of webs at mid throw 116 mm Axial  
27 mm If shrunk, radial thickness around eyeholes Dia. of flywheel 455 mm Weight 149 kg Are balance  
d? yes Total weight 7.86 kg Rad. of gyration 70 mm Dia. of flywheel shaft  
gine been tested in shop? yes How long at full power? 6 hours Was it tested with driven machinery attached? water brake  
sted and found satisfactory? yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over)  
oval of shafting 10.7.52 Identification marks on shafting LLOYD'S KLN. 174/5 H.B. 19.2.54  
of driven machinery unknown

of Certificate for Starting Air Receivers  
GAS TURBINES. BHP per set At RPM of output shaft. Open or closed cycle?  
of turbines. HP drives at RPM HP gas inlet temp. pressure  
IP at IP  
LP at LP  
n should be gas cycle)  
mpressors per set Centrifugal or axial flow type? Material of turbine blades  
ompressor blades No. of air coolers per set No. of heat exchangers per set How are  
ed? Are the turbines operated in conjunction with free piston gas generators?  
free piston gas generators Dia. of working pistons Dia. of compressor pistons No. of double strokes  
full power Gas delivery pressure Gas delivery temperature  
ines and attached equipment been tested in shop? How long at full power? Were they tested with driven machinery  
Particulars of gearing  
val of plans Identification marks Particulars of driven machinery

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

description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)  
Klöckner-Humboldt-Deutz Manufacturer  
ry duplicate of a previous case? yes If so, which? Howaldtswerke AG., Hamburg KLN Rpt. No. 146

REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters.  
of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.  
gine has been constructed under special survey of tested materials and is in  
nce with the Secretary's letters, approved plans and Rules Requirements. The  
ls and workmanship are good and the engine, when tested in the shops under  
load conditions was found to function satisfactorily. The governor tests  
so satisfactory. This engine, in my opinion, is suitable for installation in  
classed with the Society.

80.--  
50.--  
13.--  
ndered 6.3.57 R 693  
Engine Surveyor to Lloyd's Register

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.

Engine Surveyor to Lloyd's Register

004230-004237-0076