

Form 4c.

No. 687690.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 242

Received at London Office

APR 11 1938

Date of writing Report 1.4.38. When handed in at Local Office 6.4.38. Port of Dusseldorf

No. in Survey held at Cologne Date, First Survey 17.1.38. Last Survey 31.3.38. 19
Reg. Book. Number of Visits 6

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel
Built at Capelle By whom built A. Vuyk & Zoon Yard No. 646 When built 1938

Owners Port belonging to Eng. 499689-90
Oil Engines made at Cologne By whom made Humboldt-Deutzmotoren A.G. Contract No. When made 1938
Generators made at By whom made Contract No. When made
No. of ~~sets~~ 1 aux Engine Brake Horse Power 25 Nom. Horse Power as per Rule 7.2 Total Capacity of Generators Kilowatts

IL ENGINES, &c. Type of Engines Heavy oil engine O.M.Z.117 2 or 4 stroke cycle 2 Single or double acting single
Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 125 mm Length of stroke 170 mm No. of cylinders two No. of cranks two
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 178 mm Is there a bearing between each crank eye

Revolutions per minute 750 Flywheel dia. 600 mm Weight 178 kg Means of ignition sol. inject. Kind of fuel used on test bed gas oil
Crank Shaft, dia. of journals as per Rule 70 mm Crank pin dia. 75 mm Crank Webs Mid. length breadth 102 mm Thickness parallel to axis
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced
Are the cylinders fitted with safety valves yes Are the exhaust pipes ~~and silencers~~ water cooled or lagged with non-conducting material no
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Lubricating Oil Pumps, No. and size 1 tooth wheel pump capacity 522 lts./h at 1275 r.p.m.
Air Compressors, No. No. of stages Diameters Stroke Driven by
Scavenging Air Pumps, No. two Diameter 220 mm Stroke 87 mm Driven by the engine itself

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces
Is there a drain arrangement fitted at the lowest part of each receiver
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
Starting Air Receivers, No. one Total cubic capacity 30 ltrs Internal diameter 191 mm thickness 6.5 mm
Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 55-61.3 kg/mm² Working pressure by Rules 35 kg/cm²

ELECTRIC GENERATORS:—Type
Pressure of supply volts. Full Load Current Amperes. Direct or Alternating Current
If alternating current system, state the periodicity Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off
Generators, are they compounded as per rule is an adjustable regulating resistance fitted in series with each shunt field
Are all terminals accessible, clearly marked, and furnished with sockets
are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule
If the generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements
If the generators are 100 kw. or over have they been built and tested under survey

PLANS. Are approved plans forwarded herewith for Shafting 620580 A 19.8.37 Receivers 3436 7.7.33 Separate Tanks
(If not, state date of approval)

SPARE GEAR as per Rules

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.



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Lloyd's Register Foundation

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Dates of Survey while building { During progress of work in shops - - } 17.1.- 24.1.- 3.2.- 4.3.- 16.3.-, 31.3.-
 { During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders 4.3.-31.3. Covers 4.3.-31.3.- Pistons 31.3. Piston rods

Connecting rods 24.1.-3.2.-31.3. Crank and Flywheel shaft 17.1.-16.3.-31.3.- Identification Marks: Lloyd's 3055 H.B.16.3.

Crank and Flywheel shafts, Material S.M.Steel Identification Mark

Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case If so, state name of vessel Messrs. Levers Pacific Plantations, S. Düsseldorf Report 90.

General Remarks (State quality of workmanship, opinions as to class, &c.)

This auxiliary engine has been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plan and the instructions thereto. The material used in the constructions was found to be good and the workmanship satisfactory. The auxiliary engine has been tested on Maker's test bed in the presence of the undersigned under full load during 7 hours and 10% overload during 1 hour and was found working satisfactorily during these trials. After trials all working parts have been opened out for examination and were found in good condition.

The main engine is also being built by Messrs. Humboldt-Deutzmotoren.

A copy of this report has been sent to Rotterdam Surveyors.

H. Fringemann
 Surveyor to Lloyd's Register of Shipping.

The amount of Fee £	:	:	When applied for,
			19.....
Travelling Expenses (if any) £	:	:	When received,
			19.....

Committee's Minute
 Assigned *See F.E. marks etc.* TUE. 25 OCT 1938



Im. 236. - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)