

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Rot. Rpt. N° 27852 London

Received at London Office JUN 30 1938

Date of writing Report 16.6.38. When handed in at Local Office 25.6.38. Port of Düsseldorf

No. in Survey held at Cologne Date, First Survey 17.5.38 Last Survey 16.6.38 19

Reg. Book. Number of Visits

Single
Twin
Triple
Quadruple
Screw vessel

M.V. Citrine

Tons { Gross
Net

Built at Hardinxfeld By whom built N.V. Scheepsb. De Merwede Yard No. 386 When built 1938

Owners Port belonging to

Oil Engines made at Cologne By whom made Humboldt-Deutzmotoren Eng. 515947/49 Contract No. 515950/52 When made

Generators made at By whom made Contract No. When made

No. of Sets 2 Aux Engine Brake Horse Power 68 Nom. Horse Power as per Rule 2x16 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c. Type of Engines Heavy oil engine A3M 220 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 170 mm Length of stroke 200 mm No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 191 mm Is there a bearing between each crank yes

Revolutions per minute 900 Flywheel dia. 750 mm Weight 480 kg Means of ignition sol. inject Kind of fuel used on test bed gas oil

Crank Shaft, dia. of journals as per Rule 120 mm as fitted Crank pin dia. 110 mm Crank Webs Mid. length breadth 160 mm Mid. length thickness 42,5 mm Thickness parallel to axis Thickness around eye-hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 16 mm

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 water cooled or lagged with non-conducting material

Cooling Water Pumps, No. two 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 24 ltrs/min. at 990 r.p.m.

Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

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 lts. 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 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 209836 A 6.12.37 Receivers 3436 7.7.33 Separate Tanks

SPARE GEAR as per Rules

The foregoing is a correct description.

Humboldt-Deutzmotoren

Aktiengesellschaft
Kag

Manufacturer.



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002038-002050-0060

Dates of Survey while building
 During progress of work in shops - - } 17.5.- 2.6.- 7.6.- 14.6.- 16,6.-1938.
 During erection on board vessel - - - }
 Total No. of visits

Dates of Examination of principal parts—Cylinders 7.6. Covers 7.6., 14.6., 16.6. Pistons 14.6.-16,6. Piston rods

Connecting rods 2.6.-14.6.-16.6- Crank ~~and flywheel~~ shaft 17.5.-7.6.- 14.6.- 16.6. Intermediate shaft

Crank ~~and flywheel~~ shafts, Material S.M.Steel Identification Mark LLOYD'S 3310 H.B.7.6.38.
 3309

Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case yes If so, state name of vessel Messrs. Anglo Saxon Pert. Co. London
 Düsseldorf Report No.93.

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

These auxiliary engines have been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plan and the instruction thereto. The material used in the construction was found to be good and the workmanship satisfactory. These auxiliary engines have 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 Office. ✓

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

M. Springemann
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE 28 FEB 1939**
 Assigned *See Rot. 76, 27832*

Im. 2. 36. - Transfer.
 (The Surveyors are requested not to write on or below the space for Committee Minute.)