

REPORT ON OIL ENGINE ~~ELECTRIC GENERATOR SETS~~.

No. 166.

Received at London Office APR 26 1937

Date of writing Report 20.4. 37. When handed in at Local Office 23.4. 37 Port of Dusseldorf.

No. in Survey held at Cologne Date, First Survey December, 2nd Last Survey April, 14th 1937.

Reg. Book. Single on the Twin Triple Quadruple Screw vessel Tons { Gross Net

Built at Bolnes By whom built N.V. Boele's Scheepswerven en Machine Fabriek, Yard No. 866 When built 1937

Owners Port belonging to

Oil Engines made at Cologne By whom made Humboldt-Deutzmotoren A.G. Contract No. 434715 When made 1937

Generators made at By whom made Contract No. When made

No. of ~~xxx~~ 1 Aux Engine Brake Horse Power 15 Nom. Horse Power as per Rule 4.3 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c. Type of Engines Heavy Oil Engine M.J.H. 322 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 45 kgs/cm<sup>2</sup> Diameter of cylinders 145 mm Length of stroke 220 mm No. of cylinders one No. of cranks one

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 176 mm Is there a bearing between each crank yes

Revolutions per minute 750 Flywheel dia. 2 x 950 mm Weight 234 kgs. each Means of ignition sol. inject Kind of fuel used on test bed (gas oil)

Crank Shaft, dia. of journals as per Rule 75 mm Crank pin dia. 75 mm Crank Webs Mid. length breadth 112 mm Thickness parallel to axis shrunk Mid. length thickness 42 mm Thickness around eyehole

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

Cooling Water Pumps, No. none 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 135 ltrs./h. at 375 rev. per min.

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. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

## 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 No. 109510, Receivers Separate Tanks  
(If not, state date of approval) 12.2.36.

SPARE GEAR As per Rules.

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.



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Dates of Survey while building	{ During progress of ) work in shops - - ) During erection on ) board vessel - - - ) Total No. of visits	2.12.36.;	9.4.37.;	14.4.37.
		Liner: 9. & 14.4.37.		
		.		

(Total No. of visits ..... Liner: 9. & 14.4.37.

*Dates of Examination of principal parts—Cylinders* 9.& 14.4.37. *Covers* 9.& 14.4.37. *Pistons* 14.4.37. *Piston rods*

Connecting rods 14.4.37. Crank ~~14.4.37.~~ shaft 9.4.37. 14.4.37. Intermediate shaft

Crank ~~axles~~ shafts, Material S.M. Steel Identification Mark LLOYD'S 2335 H.B. 9.4.37.

<i>Intermediate shafts, Material</i>	<i>Identification Marks</i>
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Is this machinery duplicate of a previous case yes If so, state name of vessel Mij. De Noord, Yard No. 563  
(Düsseldorf Report No. 158)

*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 construction was found to be good and the workmanship satisfactory. The auxiliary engine has been tested on Makers' test bed in the presence of the undersigned under full load and 10 % overload during 8 hours and was found working satisfactorily during these trials. After trials all working parts of the engine have been opened out for examination and were found in good condition.

The main engine for the same vessel will also be constructed at the works of Messrs. Humboldt-Deutzmotoren A.G.,

A copy of this report has been forwarded to the Rotterdam Surveyors.

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

*Wm. Kinggemann*  
Surveyor to Lloyd's Register of Shipping.

## Committee's Minute

FRI 30 JUL 1937

*Assigned*

Lu Rat 25804

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