

Rpt. 4c.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 253

Comm. 683578  
683579

Received at London Office

JUN -3 1938

Date of writing Report 20.5. 1938 When handed in at Local Office 27.5. 1938 Port of Dusseldorf

No. in Survey held at Cologne  
Reg. Book.

Date, First Survey 5.11.37 Last Survey 6.12.37 19

Number of Visits

Single  
on the Twin  
Triple  
Quadruple } Screw vessel

SURIGAO

Tons { Gross  
Net

Built at Hongkong By whom built Hongkong & Whampoa Dock Co. Yard No. 795 When built 1938

Owners Port belonging to Eng. 469448/50  
Oil Engines made at Cologne By whom made Humboldt-Deutzmotoren Contract No. xxx When made 1938

\*Generators made at By whom made Contract No. When made 1938

No. of ~~Eng~~ 2 Aux Engine Brake Horse Power 2x56 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/cm<sup>2</sup> ✓ 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 550 ✓ Flywheel dia. 780 mm ✓ Weight 770 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 ✓ Crank pin dia. 110 mm ✓ Mid. length breadth 160 mm ✓ Thickness parallel to axis  
as fitted Crank Webs 42,5 mm ✓ Thickness around eyehole  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 125 mm ✓ Thickness of cylinder liners 16 mm ✓  
as fitted 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 water cooled ✓  
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 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.** 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 209836 A 6.12.37 Receivers Separate Tanks  
(If not, state date of approval)

**SPARE GEAR** as per Rules

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiongesellschaft

Manufacturer.



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B.S.B.  
8-6-38



Dates of Survey while building { During progress of work in shops - - } 5.11.- 9.11.- 19.11.- 23.11.- 24.11.- 6.12.-  
{ During erection on board vessel - - - }  
Total No. of visits  
Liners: 19.11.- 23.11.- 6.12.  
Dates of Examination of principal parts—Cylinders 19.11.-23.11. Covers 19.11. 6.12. Pistons 6.12. Piston rods  
Connecting rods 9.11.- 24.11.- Crank and flywheel shaft 5.11.-23.11.-6.12. Intermediate shaft  
Crank ~~and flywheel~~ shafts, Material S-M.Steel Identification Mark Lloyd's 2824 H.B. 23.11.38. ✓  
Intermediate shafts, Material S. M. Steel Identification Marks Sample No 245 H.B. 2825  
Is this machinery duplicate of a previous case yes ✓ If so, state name of vessel Messrs. Anglo Saxon Petr. 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 instructions 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.

The fusion welded bed plates have been manufactured under survey in accordance with the approved plan No. 714680 date of approval 24th December, 1937.

Identification marks: 3135 H.B.9.4.38. and 3137 H.B.9.4.38.

A copy of this report has been sent to Hongkong Office. ✓

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

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

Committee's Minute

TUE 22 NOV 1938

Assigned

See Hg. JE 8190



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