

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 156.

Order: 45462  
 Date of writing Report 9th Nov. 1936 When handed in at Local Office  
 No. in Survey held at Calagne.  
 Reg. Book.

Received at London Office 3 DEC 1936  
 Port of Düsseldorf  
 Date First Survey 17th October Last Survey 2nd Nov 1936  
 Number of Visits 3.

Single on the Twin Triple Quadruple Screw vessel  
 Built at By whom built Nonghonywhampos Yard No. 767 When built  
 Owners La Marina, Filipina, Caba. Port belonging to  
 Oil Engines made at Calagne. By whom made H. Humboldt & Deutzmotoren G. Contract No. 396576/18 When made 1936.  
 Generators made at By whom made Contract No. When made  
 No. of Sets 1 Engine Brake Horse Power 45 Nom. Horse Power as per Rule 16.1 Total Capacity of Generators Kilowatts.

**IL ENGINES, &c.**—Type of Engines Heavy Oil Engine U3 M 140 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 45 kg/cm<sup>2</sup> Diameter of cylinders 190 mm Length of stroke 400 mm No. of cylinders three No. of cranks three  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 211 mm. Is there a bearing between each crank No  
 Revolutions per minute 375 Flywheel dia. 1500 mm Weight 1800 kg Means of ignition solid injection Kind of fuel used  
 Crank Shaft, dia. of journals as per Rule 110 mm as fitted 110 mm Crank pin dia. 110 mm Crank Webs Mid. length breadth 220 mm Mid. length thickness 50 mm Thickness parallel to axis Thickness around eyehole  
 Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication  
 Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with non-conducting material  
 Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
 Lubricating Oil Pumps, No. and size 5 each wheel pumps.  
 Air Compressors, No. No. of stages Diameters Stroke Driven by  
 Scavenging Air Pumps, No. Diameter Stroke Driven by

**IR 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, Receivers, Separate Tanks  
 (If not, state date of approval)

**SPARE GEAR** As per Rules.  
 Additional spare gears: 1 complete piston, 1 connecting rod, 1 crank bearing, 1 main bearing, 1 cylinder liner, 1 tooth wheel lubricating pumps and 1 complete fuel pump.

The foregoing is a correct description,  
 Humboldt-Deutzmotoren  
 Aktiengesellschaft  
 Manufacturer.



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4. C 156.

Dates of Survey while building	{	During progress of work in shops--
		During erection on board vessel---
		Total No. of visits

Dates of Examination of principal parts—Cylinders 17.10.36. Cores 17.10.36. Pistons 17.10.36. Piston rods

Connecting rods 17.10.36.

Crank and Flywheel shaft 17.12.36.

Intermediate shaft

Crank and Flywheel shafts, Material

*C. J. Webb.*

Identification Mark 11189 C. J. 31.8.36.

Intermediate shafts, Material

Identification Marks

Is this machinery duplicate of a previous case *No.* If so, state name of vessel.

**General Remarks** (State quality of workmanship, opinions as to class, &c. *This auxiliary engine has been built in accordance with the approved plans and the requirements embodied in the Society's letter of the 6th. February 1931, and in accordance with the requirements of the Rules. Materials and workmanship are of best quality, the outfit is simple. The engine has been tested under full working conditions for about five hours on the trial stage in machine shops and further for half an hour at 10% overload with satisfactory results. After trial all working parts have been opened up and were found in good condition. This engine has been built under special survey and will be fitted on board the vessel "M. S. Fulden," Owners of which are: Srao. La Naviera Filipina, Cebu.*

*In my opinion this machinery is eligible for notation: \* L.M.C 11.36.*

The amount of Fee ...

*Lks. 100,00*

When applied for,

*16.11.1936*

*D. Account.*

Travelling Expenses (if any)

*Lks. 20,00*

When received,

*19.12.36*

*No. 9646*

*21/12*

*Paul Hawk*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 18 JUN 1937

Assigned

*See J.E. Nucky Rpt.*



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