

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 107024

Received at London Office  
 Writing Report 12-2-1939. When handed in at Local Office 27 FEB 1939 Port of Ipswich.  
 Survey held at Colchester Date, First Survey 19-9-38 Last Survey 1-2-1939.  
 Number of Visits 5.

on the Single Screw vessel  
 BARIMA  
 at Greenock. By whom built Ferguson Bros. Yard No. 340 When built 1939.  
 Port belonging to

Engines made at Colchester By whom made Davy, Paxman & Co. (Colchester) Ltd. Contract No. 1175 When made 1939.  
 Motors made at Norwich By whom made Lawrence, Scott & Electromotor Ltd. Contract No. 78096. When made 1939.  
 Sets 6 Engine Brake Horse Power 47 Nom. Horse Power as per Rule Total Capacity of Generators 30 Kilowatts.

ENGINES, &c. Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting S.  
 Mean pressure in cylinders 7.00 lb. Diameter of cylinders 4 5/8" Length of stroke 5 7/8" No. of cylinders 4 No. of cranks 4.  
 Bearings, adjacent to the Crank, measured from inner edge to inner edge 5 1/8" Is there a bearing between each crank Y.  
 Turns per minute 1100 Flywheel dia. 28" Weight 425 lb. Means of ignition Compression Kind of fuel used Diesel  
 Shaft, dia. of journals as per Rule 3 1/8" Crank pin dia. 2 7/8" Mid. length breadth 4 1/2" Thickness parallel to axis  
 as fitted 3 1/8" Crank Webs Mid. length thickness 1 1/4" Thickness around eyehole  
 Main Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 1/8"  
 Governor or other arrangement fitted to prevent racing of the engine when de-clutched Y. Means of lubrication Forced.  
 Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged.  
 Cooling Water Pumps, No. 6 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Y.  
 Lubricating Oil Pumps, No. and size 6 1/2" 5/8" Section & delivery.  
 Compressors, No. 6 No. of stages 2 Diameters 1 1/4" & 3 1/4" Stroke 3" Driven by Generator Engine  
 Suctioning Air Pumps, No. Diameter Stroke Driven by

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule  
 Are the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces  
 Are there a drain arrangement fitted at the lowest part of each receiver  
 Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness  
 Material Range of tensile strength Working pressure by Rules  
 Suctioning Air Receivers, No. Total cubic capacity Internal diameter thickness  
 Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Enclosed ventilated, drip-proof  
 Voltage of supply 220 volts. Load 137 Amperes. Direct or Alternating Current Direct.  
 Alternating current system, state frequency of periods per second  
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Y.  
 Do the generators, do they comply with the requirements regarding rating are they compound wound Y.  
 Are they over compounded 5 per cent. Y., if not compound wound state distance between each generator  
 Are adjustable regulating resistance fitted in series with each shunt field Y. Are all terminals accessible, clearly marked, and furnished with sockets Y.  
 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Y. Are the lubricating arrangements of the generators as per Rule Y.  
 Are approved plans forwarded herewith for Shafting 29-8-38. Receivers Separate Tanks

RE GEAR

The foregoing is a correct description,  
 DAVEY, PAXMAN & CO. (Colchester) Limited.  
 Manufacturer.  
 GENERAL MANAGER.



Dates of Survey while building { During progress of work in shops - 19.9.38, 26-10-38, 18-11-38, 6-12-38, 2.1.39, 2-12-38, 1-2-39.  
 { During erection on board vessel - 17-10-38  
 Total No. of visits SEVEN.

Dates of Examination of principal parts—Cylinders 19-9-38 Covers 26-10-38 Pistons 17-10-38 Piston rods  
 Connecting rods 17-10-38 Crank and Flywheel shaft 17-10-38 Intermediate shaft

Crank and Flywheel shafts, Material Steel Identification Mark LLOYDS. N° 7905. M.A.B. 13-8-37.

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

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

The engine has been constructed under Special Survey in accordance with the Rule Requirements.

The materials & workmanship are sound & of good description. The engine has been tested on the bench for a period of six hours and found satisfactory and has been dispatched to Greenock to be fitted on board a Classed vessel.

This Generator & Compressor set has been fitted in the vessel at Port Glasgow: J. R. Boyle  
 Greenock, 25/5/39.

Im. 3.31—Transfer.  
 (The Surveys are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... Inclusion : When applied for, 19.  
 Travelling Expenses (if any) £ : 5/6 When received, 19.

J. R. Boyle.  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 30 MAY 1939  
 Assigned SEE ACCOMPANYING MACHINERY REPORT.



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