

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 50142

Received at London Office 4 JUN 1930

Date of writing Report 19 When handed in at Local Office 2. 6. 1930 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 8. 10. 29 Last Survey 20. 5. 1930  
Reg. Book 30630 on the Tonnage Register Triple Screw vessel PACIFIC GROVE Tons { Gross 7114. Net 4316.

Built at Kiel By whom built Deutsche Werke Kiel A.G. Yard No. When built 1928

Owners Messrs. Furness Withy & Co. Ld. Port belonging to

Engines made at Glasgow By whom made Fiat British Auxiliaries Ltd Contract No. 138 When made 1930.

Generators made at By whom made Metropolitan Vickers Ltd Contract No. When made

of Sets 1 Engine Brake Horse Power 330. Nom. Horse Power as per Rule Total Capacity of Generators 220. Kilowatts.

ENGINES, &c. Type of Engines Fiat British Diesel 2 or 4 stroke cycle 2 Single or double acting Single

Working pressure in cylinders 500 lb. Diameter of cylinders 250 mm Length of stroke 450 mm No. of cylinders 5 No. of cranks 5

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 354 mm Is there a bearing between each crank Yes.

Revolutions per minute 300. Flywheel dia. 1800 mm Weight 2.1 Tons Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 154 mm as fitted 160 mm Crank pin dia. 160 mm Mid. length breadth 212 mm Thickness parallel to axis

Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 15 mm

Governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication Mechanical

Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged.

Number of Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Number of Heating Oil Pumps, No. and size one Gear wheel type - 45% inlet & outlet

Number of Compressors, No. one No. of stages 3 Diameters 260-232-56 Stroke 320 mm Driven by Crank Shaft

Number of Suctioning Air Pumps, No. one Double Acting Janssen Diameter 405 mm Stroke 300 mm Driven by Crank Shaft

RECEIVERS: Are each receiver, which can be isolated, fitted with a safety valve as per Rule None fitted

Are the internal surfaces of the receivers be examined Yes. What means are provided for cleaning their inner surfaces

Number of Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Are the receivers less, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Number of Suctioning Air Receivers, No. Total cubic capacity Internal diameter thickness

Are the receivers less, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS: Type Open Compound wound.

Voltage of supply 220 volts. Load 1000 Amperes. Direct or Alternating Current Direct

Are the generators 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 Yes.

Do the generators, do they comply with the requirements regarding rating Yes. Are they compound wound Yes.

Do they over compound 5 per cent. Yes. If not compound wound state distance between each generator

Are the generators adjustable regulating resistance fitted in series with each shunt field Yes. Are all terminals accessible, clearly marked, and furnished with sockets Yes.

Are the generators so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes. Are the lubricating arrangements of the generators as per Rule Yes.

Are the generators N.S. Are approved plans forwarded herewith for Shafting E. 14. 10. 29 Receivers Separate Tanks

RE GEAR

1 Fuel valve complete. 3 Fuel valve spindles 3 Fuel valve flame plates. 1 main

armig bush. 1 flywheel end bush 2 main bearing studs. 1 top end <sup>pin</sup> bush & 1 bottom end bearing

with bolts. 1 cylinder liner. 1 cylinder cover. 1 set compressor piston rings. 1 set compressor valves

complete. 1 set fuel pump working parts. 1 piston complete. 1 set cylinder cover studs. 1 set of

valving water pump valves. 1 compressor top end bearing with bolts. 1 air starting valve. 1 relief valve

The foregoing is a correct description.

FOR FIAT BRITISH AUXILIARIES, LIMITED,

John Rogers

WORKS MANAGER

Manufacturer.

13th January, 1930.



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W112-0119

Dates of Survey while building { During progress of work in shops - - - 19 29 30 Nov 1 7 18 28 Dec 3 5 13 17 26 (1930) Jan 10 May 20  
 { During erection on board vessel - - - }  
 Total No. of visits 13

Dates of Examination of principal parts—Cylinders 7-11-29. Covers 8-10-29. Pistons 8-10-29 Piston rods Trunk type  
 Connecting rods 10-1-29. Crank and Flywheel shaft 28-11-29. Extension Intermediate shaft 28-11-29.  
 Crank and Flywheel shaft Material 5 Identification Mark 1598 R8/11-29 Extension Identification Marks 1591 E 19-11-29.

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

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

This machinery has been built under special Survey and in accordance with the Rules the materials and workmanship are good. On completion it has been tried on the bench with satisfactory results.

This engine will be eligible, in my opinion, for inclusion in the classification and notation of +LRC of the vessel for which it is intended. The engine will be installed at Glasgow.

The Auxiliary Generator has been properly fitted on board & tried under working conditions. The Report No. 50530.

J. B. Peckle

1m.7.20—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 9 : 14 : 6/3/1930. When applied for.  
 Travelling Expenses (if any) £ : : 14. 6. 30. When received.

Robert Rae & Joseph Dunlop  
 Surveyors to Lloyd's Register of Shipping.



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Committee's Minute GLASGOW 3 JUN 1930

Assigned See accompanying Report No. 50530.