

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 49810

of writing Report 11-11-1929 When handed in at Local Office 11-11-1929 Port of *Glasgow*
 in Survey held at *Glydebank* Date, First Survey 28-3-27 Last Survey 9-11-1929
 Book. Number of Visits 181

Single
on the Twin
Triple
Quadruple
Screw vessel
"Rangitane"
 Tons { Gross 167 33
Net 103 11
 Built at *Glydebank* By whom built *John Brown & Co. Ltd.* Yard No. 522 When built 1929
 Owners *New Zealand Shipping Co.* Port belonging to *Plymouth*
 Engines made at *Glydebank* By whom made *John Brown & Co. Ltd.* Contract No. 522 When made 1929
 Generators made at *Stafford* By whom made *The English Electric Co. Ltd.* Contract No. 4703 When made 1929
 No. of Sets 2 Engine Brake Horse Power Nom. Horse Power as per Rule Total Capacity of Generators 550 Kilowatts.

ENGINES, &c. Type of Engines *Suber* 2 or 4 stroke cycle 2 Single or double acting 8.
 Mean pressure in cylinders 500 Diameter of cylinders 380 m/m Length of stroke 600 No. of cylinders 6 No. of cranks 6
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 518 m/m Is there a bearing between each crank *Yes*
 Revolutions per minute 191/180 Flywheel dia. 2100 m/m Weight 4-15-0-0 Means of ignition *Air* Kind of fuel used *Diesel*
 as per Rule 12-9-27 Crank pin dia. 250 m/m Crank Webs Mid. length breadth 13 1/2" Thickness parallel to axis
 as fitted 250 m/m Mid. length thickness 5 5/8" shrunk Thickness around eye hole *solid*
 as per Rule 12-9-27 Intermediate Shafts, diameter as per Rule *none* Thickness of cylinder liners 1 5/8"
 as fitted 250 m/m
 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 *H.C.*
 Working Water Pumps *See main Eng. Hk.* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes*
 Lubricating Oil Pumps, No. and size *See main Eng. Hk.*
 Compressors, No. 1 No. of stages 3 Diameters 450.410.95 1/2" Stroke 400 m/m Driven by *Above Eng.*
 Sucking Air Pumps, No. 1 Diameter 1000 m/m Stroke 500 m/m Driven by " "

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes*
 Are the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *Franchot*
 Is there a drain arrangement fitted at the lowest part of each receiver *Yes*
 Pressure Air Receivers, No. 2 Cubic capacity of each 3.2 cub. ft. Internal diameter 9 5/8" thickness 7/16"
 less, lap-welded or riveted longitudinal joint *Yes* Material *8* Range of tensile strength 28-32 Working pressure by Rules 1050
 Sucking Air Receivers, *See main Eng. Hk.* Total cubic capacity Internal diameter thickness
 less, lap-welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type *The English Electric Co.*
 Voltage of supply 220/225 volts. Load 0/2450 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 *Yes*
 Do the generators, do they comply with the requirements regarding rating *Yes* are they compound wound *Yes*
 If over compounded 5 per cent. *Yes*, if not compound wound state distance between each generator
 Is adjustable regulating resistance fitted in series with each shunt field *Yes* Are all terminals accessible, clearly marked, and furnished with sockets *Yes*
 Are they 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 approved plans forwarded herewith for Shafting 12-9-27 Receivers Separate Tanks
 (If not, state date of approval)
 RE GEAR *As per Rule requirements, etc.*

The foregoing is a correct description,
 John Brown & Company, Limited.

John Brown & Company, Limited.
 Clydebank Secretary.

Manufacturers



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Lloyd's Register
Foundation

W1137-6128

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

See Accompanying machinery Report

Dates of Examination of principal parts—Cylinders 2-11-28 di Covers 2-11-28 di Pistons 27-9-28 di Piston rods 27-9-28 di

Connecting rods 3-10-28 di, Crank and Flywheel shaft 14-1-29 di, Intermediate shaft 5-10-28 di.

Crank and Flywheel shaft, Material 8. Identification Mark P. 1344. Intermediate shafts, Material 8 Identification Marks S. 54

Is this machinery duplicate of a previous case? No If so, state name of vessel "Rangitiki". "Rangitata"

General Remarks (State quality of workmanship, opinions as to class, &c.) These Generator sets have been built under special survey in accordance with the approved plans and the Society's Rules, and requirements. The materials and workmanship are good, they have been securely fitted on board and satisfactorily tried under working conditions.

[Faint handwritten notes and markings, including "P. 1344", "S. 54", and various numbers and dates.]

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

Jas. Cairns,
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 NOV 1929
Assigned See Accompanying machy Report