

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 91,253

12 AUG 1927

Date of writing Report *April 1st 1927* When handed in at Local Office *April 1st 1927* Port of *London*
 No. in Survey held at *Bedford* Date, First Survey *Jan. 7th* Last Survey *31st March 1927*
 Reg. Book. *Bedford* Number of Visits
 on the *Single* *Twin* *Triple* *Quadruple* Screw vessel *"PORT GISBORNE"* Tons { Gross
 Net
 Built at *Newcastle* By whom built *James Swan, Hunter, & John Richardson* Yard No. *1222* When built
 Owners *Commonwealth & Dominion Line Ltd.* Port belonging to
 Oil Engines made at *Bedford* By whom made *Messrs. H. A. Allen & Co.* Contract No. *44901/12* When made *1927*
 Generators made at *Bedford* By whom made *Messrs. H. A. Allen & Co.* Contract No. When made *1927*
 No. of Sets *3* Engine Brake Horse Power *360 EACH 1080 TOTAL* Nom. Horse Power as per Rule *314 TOTAL* Total Capacity of Generators *750* Kilowatts.

TYPE OF ENGINES, &c. Type of Engines *Diesel (Burmester Main)* 2 or 4 stroke cycle *4* Single or double acting *S.A.*
 Maximum pressure in cylinders *530 lbs/sq. in.* Diameter of cylinders *410 mm* Length of stroke *520 mm* No. of cylinders *4* No. of cranks *4*
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *476 mm* Is there a bearing between each crank *Yes*
 Revolutions per minute *230* Flywheel dia. *2180 mm* Weight *6 Tons* Means of ignition *Compression* Kind of fuel used *Diesel*
 as per Rule *223 mm* Crank Shaft, dia. of journals *235 mm* Crank pin dia. *240 mm* Crank Webs Mid. length breadth *380 mm* Mid. length thickness *127 mm* Thickness parallel to axis *SOLID FORGED*
 as fitted *235 mm* Thickness around eye-hole
 Flywheel Shaft, diameter *CRANK SHAFT* Intermediate Shafts, diameter *as per Rule* Thickness of cylinder liners *34 1/2 mm*
 as fitted *CRANK SHAFT* Is a governor or other arrangement fitted to prevent racing of the engine when decoupled *Yes* Means of lubrication *Forced feed from engine*
 Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material
 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 *One driven off each engine*
 Air Compressors, No. *3* No. of stages *3* Diameters *62-285-325 mm* Stroke *210 mm* Driven by *Engine*
 scavenging Air Pumps, No. *None* Diameter Stroke Driven by

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Essential plug*
 Can the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *Top & bottom of ship jacked*
 Is there a drain arrangement fitted at the lowest part of each receiver *Yes*
 High Pressure Air Receivers, No. *3* Cubic capacity of each *90 litres* Internal diameter *9 3/4"* thickness *3/8"*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *29 to 33* Working pressure by Rules *116 lbs/sq. in.*
 Starting Air Receivers, No. *3* Total cubic capacity *230 litres* Internal diameter *14"* thickness *1/2"*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *29 to 33* Working pressure by Rules *113 lbs/sq. in.*

ELECTRIC GENERATORS:—Type *Open*
 Pressure of supply *220* volts. Load *1135* Amperes. Direct or Alternating Current *Direct*
 Is an 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 *Compo and I.P.*
 Do they over compound 5 per cent. *No*, if not compound wound state distance between each generator
 Is an 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 *M. S. L. L. 1-4-26* Receivers. *✓* Separate Tanks *✓*
 (If not, state date of approval)

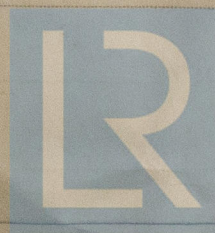
ARE GEAR

See attached List

The foregoing is a correct description,

FOR W. H. ALLEN & COMPANY LIMITED

Manufacturer.

Autoid

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Lloyd's Register
Foundation

21137-0168

1927. Jan 7, 14, 19 Feb. 4, 11, 14, 17, 28 March 9, 31. = 10 or 5 full visits.

During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits

Dates of Examination of principal parts—Cylinders 7-1-27, 14-2-27, 19-2-27 Covers 4-2-27, 11-2-27, 28-2-27 Pistons 17-2-27 Piston rods ✓
 Connecting rods 17-2-27, 28-2-27 Crank and Flywheel shaft 17-2-27, 4-2-27, 28-2-27 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark See below Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case? Yes If so, state name of vessel "Port Freemantle"

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

Crank Shafts Identification Marks:

<p><u>A.</u></p> <p>T.1036 LLOYDS No 7614 J.P. 24-8-26 LR 19-1-27</p>	<p><u>B.</u></p> <p>1005 LLOYDS No 1345 T.H. 5-10-26 LR 4-2-27</p>	<p><u>C.</u></p> <p>LLOYDS 1357 T.H. W.G.M. 14-12-26 C.C. & F.C.</p>
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This Machinery has been constructed under special survey in accordance with approved plans and Rule requirements.
 The workmanship and materials, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.
 The three sets which are numbered 44901/A/B/C have been despatched to Newcastle where they are to be installed on board and, in my opinion, will be eligible for inclusion in the Classification and record of T.M.C. of the vessel.

The above described machinery satisfactorily fitted up in the Engine Room. Tested under working conditions and found satisfactory.

L G Shallcross
 July 1927

Arthur J. Palmer.
 Surveyor to Lloyd's Register of Shipping.

The amount of Fee ... £ 30 : 18 :
 Travelling Expenses (if any) £ 4-19-8
 When applied for, 19-2-27
 When received, as per letter from Nure 25 June 1927
 NP = $\frac{1080}{3.5} = 314.28$ p.m.
 T.R.A.

Committee's Minute
 Assigned See Nure 28 up to 108653 attached

TUES 16 AUG 1927