

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 91283

11 APR 1927 27 JUL 1927

of writing Report *April* 1927 When handed in at Local Office *April* 1927 Port of *London*
 in Survey held at *Bedford* Date, First Survey *November 24 1926* Last Survey *5 April 1927*
 Book. Number of Visits
 on the *Single* Screw vessel *"CHESHIRE"* Tons { Gross
Triple
Quadruple
 at *Glasgow* By whom built *Fairfield Ship & Eng. Co.* Yard No. *620* When built *1927*
 by *Bibby & S. Co. Ltd.* Port belonging to *Liverpool*
 Engines made at *Bedford* By whom made *Messrs. W.H. Allen Sons & Co.* Contract No. *2901/26* When made *1927*
 Generators made at *Bedford* By whom made *Messrs. W.H. Allen Sons & Co.* Contract No. *2901/26* When made *1927*
 of Sets *3* Engine Brake Horse Power *900* Nom. Horse Power as per Rule *257* Total Capacity of Generators *630* Kilowatts.

ENGINES, &c.—Type of Engines *Burmeister & Wain, Diesel* 2 or 4 stroke cycle *4* Single or double acting *S.F.*
 Mean pressure in cylinders *500 lbs/sq. in.* Diameter of cylinders *410 mm* Length of stroke *600 mm* No. of cylinders *4* No. of cranks *4*
 of bearings, adjacent to the Crank, measured from inner edge to inner edge *476 mm* Is there a bearing between each crank *Yes*
 tions per minute *185* Flywheel dia. *2180 mm* Weight *7 Tons* Means of ignition *Compression* Kind of fuel used *Heavy oil*
 Shaft, dia. of journals as per Rule *226 mm* Crank pin dia. *240 mm* Mid. length breadth *380 mm* Thickness parallel to axis *Solid forged*
 as fitted *235 mm* Crank Webs *127 mm* Mid. length thickness *127 mm* Thickness around eye-hole
 Steel Shaft, diameter as per Rule *235 mm* Intermediate Shafts, diameter as per Rule *✓* Thickness of cylinder liners *34 1/2 mm*
 as fitted *235 mm* Governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubrication *Forced, pumps driven from engine*
 cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material
 ing Water Pumps, No. *✓* Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 eating Oil Pumps, No. and size
 compressors, No. *One per engine* No. of stages *Three* Diameters *62 x 285 x 325 mm* Stroke *250 mm* Driven by *Crank direct*
 ing Air Pumps, No. *✓* Diameter *✓* Stroke *✓* Driven by *✓*
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Essential plus*
 internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their inner surfaces *As possible*
 a drain arrangement fitted at the lowest part of each receiver *Yes*
 Pressure Air Receivers, No. *One per engine* Cubic capacity of each *90 litres* Internal diameter *9 3/4"* thickness *3/8"*
 s, lap welded or riveted longitudinal joint *Stainless* Material *Steel* Range of tensile strength *29/33 mm* Working pressure by Rules
 ing Air Receivers, No. *None* Total cubic capacity *—* Internal diameter *—* thickness *—*
 s, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure by Rules *—*
 TRIC GENERATORS:—Type *Open with Canopy*
 re of supply *220* volts. Load *930* Amperes. *Direct or Alternating Current* *Direct*
 ating current system, state frequency of periods per second *✓*
 Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off *Yes*
 tors, do they comply with the requirements regarding rating *Yes* are they compound wound *Yes, with Interpoles*
 over compounded 5 per cent. *no*, if no compound wound state distance between each generator
 stable regulating resistance fitted in series with each shunt field *Yes* Are all terminals accessible, clearly marked, and furnished with sockets *Yes*
 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 *No* (If not, state date of approval) Receivers *✓* Separate Tanks *✓*

See attached List.

The foregoing is a correct description,

H. ALLEN SONS & COMPANY LIMITED

Auraid

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - } 1926. Nov. 24. 30. Dec. 7. 10. 11. 17. 1927 Jan. 7. 19. Feb. 4. 11. 17 March 16. Apr. 5. 13 Partial = 5 5b.
{ During erection on board vessel - - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders 1926 Nov. 24, 30. Dec. 7, 10. Covers Nov. 24, 30. 1926 Dec. 18. 1927
Connecting rods Nov. 24, 30 Dec. 7, 10. 1926 Crank and Flywheel shaft Dec. 7, 10. 1926 Jan. 19. 1927 Intermediate shaft ✓

Crank and Flywheel shaft, Material For particulars see below Identification Marks
Is this machinery duplicate of a previous case Yes If so, state name of vessel Yes, ss. "Shropshire"

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

Particulars of Solid forged Steel Crank Shafts:—
Engine A. LLOYDS No 7621 J.P. 3-9-26 LR 7-12-26
Engine B. LLOYDS TEST 569 LLOYDS 1347 6-10-26 LR 7-12-26
Engine C. LLOYDS 1362 T.H. W.G.M. 14-12-26 C.C.F. & Co. 1429 J.T.

This Machinery has been constructed under special survey in accordance with approved plans and Rule requirements. The workmanship & material, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.

The three sets, which are numbered 29901/A/B/C, have been despatched to Glasgow where there are to be installed and, in my opinion, will be eligible for inclusion in the classification and record of + L.M.C. of the vessel.

The amount of Fee ... £ 25 : 14 :

When applied for.
12 APR 1927

Travelling Expenses (if any) £ 6 : 19 : 1

When received,
18-7-27

Committee's Minute GLASGOW 26 '11' 1927

Assigned See Glasgow Report No. 46840

Arthur A. Chalmers
Surveyor to Lloyd's Register of Shipping.



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