

Rpt. 4c. **REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.** No. 12792.

Date of writing Report **4th February, 1947.** When handed in at Local Office **7th February, 1947.** Received at London Office **8 FEB 1947** Port of **MANCHESTER.**

No. in Survey held at **Patricroft.** Date, First Survey **6th November, 1946.** Last Survey **22nd January, 1947.** Number of Visits **4.**

RECEIVED  
4 FEB 1947  
IN D.O.

Reg. Book **Single** on the **Twin** Screw vessel **T.W.S.S. ARGUS** Tons **Gross** **Net**

Built at **Port Glasgow.** By whom built **Ferguson Bros.** Yard No. **381.** When built **-**  
Owners **CORPORATION OF TRINITY HOUSE** Port belonging to **LONDON**

Oil Engines made at **Patricroft.** By whom made **L. Gardner & Sons.** Engine No. **70493.** When made **1946.**

Generators made at **Norwich.** By whom made **Laurence Scott & Electromotors.** Generator No. **200876.** When made **1946.**

No. of Sets **One.** Engine Brake Horse Power **82.** Nom. Horse Power as per Rule **20.5** Total Capacity of Generators **50.** Kilowatts.

OIL ENGINES, &c.—Type of Engines **Vertical Airless, Injection, Heavy Oil.** 2 or 4 stroke cycle **4.** Single or double acting **Single.**

Maximum pressure in cylinders **850.** Diameter of cylinders **5 1/2"** Length of stroke **7 3/4"** No. of cylinders **6.** No. of cranks **6.**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **6 15/16"** Is there a bearing between each crank **Yes.**

Revolutions per minute **800.** Flywheel dia. **32"** Weight **852 lbs.** Means of ignition **Compression.** Kind of fuel used **Diesel Oil.**

Crank Shaft, dia. of journals **Approved.** as per Rule **4 1/8"** as fitted **3 5/8"** Crank pin dia. **3 5/8"** Crank Webs Mid. length breadth **5 1/2"** Thickness parallel to axis **-**

Flywheel Shaft, diameter as per Rule **-** as fitted **-** Intermediate Shafts, diameter as per Rule **-** as fitted **-** Thickness of cylinder liners **-**

Is a 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 **No.** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **-**

Cooling Water Pumps, No. **Ram Type.** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **-**

Lubricating Oil Pumps, No. and size **One integral with Engine.**

Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**

Sea Water Pumps, No. **1-No. 87207: 46.A.** **Pulsometer** Centrifugal Type. Stroke **-** Driven by **V. Belt.**

AIR RECEIVERS:—Have they been made under Survey **-** State No. of Report or Certificate **-**

Is each receiver, which can be isolated, fitted with a safety valve as per Rule **-**

Can the internal surfaces of the receivers be examined **-** What means are provided for cleaning their inner surfaces **-**

Is there a drain arrangement fitted at the lowest part of each receiver **-**

High Pressure Air Receivers, No. **-** Cubic capacity of each **-** Internal diameter **-** thickness **-**

Seamless, lap welded or riveted longitudinal joint **-** Material **-** Range of tensile strength **-** Working pressure by Rules **-**

Starting Air Receivers, No. **-** Total cubic capacity **-** Internal diameter **-** thickness **-**

Seamless, lap welded or riveted longitudinal joint **-** Material **-** Range of tensile strength **-** Working pressure by Rules **-**

ELECTRIC GENERATORS:—Type **Compound Wound Continuous Rating.**

Pressure of supply **220.** volts. Full Load Current **227.** Amperes. Direct or Alternating Current **Direct Current.**

If alternating current system, state the periodicity **-** Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off **Yes.** Generators, are they compounded as per Rule **Yes.** 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.**

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test **Yes.** and do the results comply with the requirements **Yes.**

If the generators are 100 kw. or over have they been built and tested under survey **-**

PLANS.—Are approved plans forwarded herewith for Shafting **General Approval 6.11.43.** Receivers **-** Separate Tanks **31.10.45.**

SPARE GEAR **AS PER RULE REQUIREMENTS.**

The foregoing is a correct description,  
For and on behalf of  
**L. GARDNER & SONS LTD.,** *RS Jones* Manufacturer.



Dates of Survey while building { During progress of work in shops - - 1946. Nov. 6, 28. Dec. 2. 1947. Jan. 22.  
 { During erection on board vessel - - -  
 Total No. of visits.....

Dates of Examination of principal parts—Cylinders 28.11.46. Covers 2.12.46. Pistons 28.11.46. Piston rods -

Connecting rods 28.11.46. Crank shafts 6.11.46. Intermediate shafts -

Crank shaft { Material O.H. Steel. Tensile strength 34 Tons per sq. inch.  
 { Elongation 34% Identification Marks LLOYD'S 255 C. 6.11.46. RJY.

Flywheel shaft, Material..... Identification Marks.....

Is this machinery duplicate of a previous case..... Identification Marks.....

Identification marks on Air Receivers.....

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

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) **This engine had been constructed under special survey of tested materials in accordance with the Secretary's letters, approved plans and Requirements of the Rules. Materials and workmanship are good and the engine when tested in the shop under full load conditions gave satisfactory results. The engine in our opinion, is suitable fitting on board a vessel to be classed with this Society.**

*This engine has been efficiently installed in the vessel & tested under full load with satisfactory results. Please see Greenock report N° 23608 for recommendations*

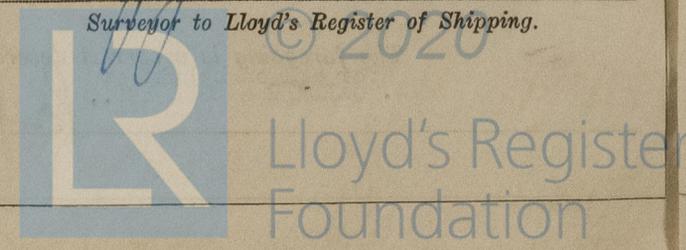
*Charles J. Hunter  
24/1/48*

The amount of Fee ... £ 4 : 0 : 0. { When applied for 7/2/48  
 Travelling Expenses (if any) £ : : { When received 19

GLASGOW, 23 FEB 1948

*R. J. Johnston*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....  
 Assigned.....



Im. 11, 42.-T (MADE AND PRINTED IN ENGLAND). (The Surveyors are requested not to write on or below the space for Committee Minute.)