

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12877.

5000. Kpt. 4c.

Date of writing Report **6th April, 1947.** When handed in at Local Office **1st May, 1947.** Port of **MANCHESTER.** Received at London Office **2nd May 1947.**

No. in Survey held at **MANCHESTER** Date, First Survey **16.11.45.** Last Survey **20th February, 1947.**

on the **Single** Screw Vessel **BOSTON MOSQUITO** Number of Visits **8.** Tons Gross **147.**

uilt at **Lowestoft.** By whom built **Richards Ironworks Ltd.** Yard No. **372/3** When built **1947**

Engines made at **Reddish.** By whom made **Crossley Bros. Ltd.** Engine No. **136643.** When made **1947.**

Generators made at **Liverpool.** By whom made **Campbell & Isherwood.** Generator No. **35722.** When made **1947.**

of Sets **One.** Engine Brake Horse Power **28.** Nom. Horse Power as per Rule **7.** Compressor **70152.** Total Capacity of Generators **15.** Kilowatts.

IL ENGINES, &c.—Type of Engine **Vertical Solid Injection, Heavy Oil.** 2 or 4 stroke cycle **4.** Single or double acting **Single.** Maximum pressure in cylinders **850.** Diameter of cylinders **5"** Length of stroke **6 1/4"** No. of cylinders **2.** No. of cranks **2.**

an of bearings, adjacent to the Crank, measured from inner edge to inner edge **12 5/8"** Is there a bearing between each crank **No.** Revolutions per minute **1,000.** Flywheel dia. **24"** Weight **460.** Means of ignition **Compression** Kind of fuel used **Diesel Oil.**

ank Shaft, dia. of journals **3 1/2"** Crank pin dia. **3 1/4"** Crank Webs **2" Centre Hole.** Mid. length breadth **4 1/2"** Thickness parallel to axis **1 7/8" shrunk** Thickness round eye hole **5/16"**

Intermediate Shafts, diameter **2"** Thickness of cylinder liners **5/16"** as per Rule **Approved.** as fitted **3 1/2"** as per Rule **Approved.** as fitted **2"** as per Rule **Approved.** as fitted **2"** as per Rule **Approved.** as fitted **2"**

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 **Yes.**

oling Water Pumps, No. **One centrifugal type** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes.** Lubricating Oil Pumps, No. and size **One plunger type.**

Compressors, No. **One.** No. of stages **One.** Diameters **10 1/2"** Stroke **10 1/2"** Driven by **Electric**

Receiving Air Pumps, No. **One.** Diameter **10 1/2"** Stroke **10 1/2"** Driven by **Electric**

R RECEIVERS:—Have they been made under Survey **Yes.** State No. of Report or Certificate **9/6/47**

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 **Yes.**

here a drain arrangement fitted at the lowest part of each receiver **Yes.** High Pressure Air Receivers, No. **One.** Cubic capacity of each **100.** Internal diameter **10 1/2"** thickness **1/2"**

less, lap-welded or riveted longitudinal joint **Yes.** Material **Steel.** Range of tensile strength **40,000.** Working pressure by Rules **100.**

Low Pressure Air Receivers, No. **One.** Total cubic capacity **100.** Internal diameter **10 1/2"** thickness **1/2"**

less, lap-welded or riveted longitudinal joint **Yes.** Material **Steel.** Range of tensile strength **40,000.** Working pressure by Rules **100.**

ELECTRIC GENERATORS:—Type **Compound wound continuous rating enclosed ventilated, drip proof.** Voltage of supply **220.** volts. Full Load Current **68.2** Amperes. Direct or Alternating Current **Direct.**

Alternating current system, state the periodicity **50.** 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 and 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 under 100 kw. full load rating, have the makers supplied certificates of test **Yes.** and do the results comply with the requirements **Yes.** Are the generators 100 kw. or over have they been built and tested under survey **Yes.**

Are approved plans forwarded herewith for Shafting **29th July, 1946.** Receivers **Yes.** Separate Tanks **Yes.**

Are the generators as per Rule Requirements **Yes.**

The foregoing is a correct description,
CROSSLEY BROTHERS LIMITED,
J. H. Crossley Manufacturer.
Contracts Department



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Foundation

May 31.

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Dates of Survey while building
 During progress of work in shops - - 1945. November 16. 1946. Jan. 15 / June 7. July 1, 2. 1947. February 20, 21.
 During erection on board vessel - - -
 Total No. of visits 7.6.46.

Dates of Examination of principal parts - Cylinders 31.5.46. RJY. Covers 31.5.46. RJY. Pistons 21.2.46. Piston rods -
 Connecting rods 15.1.46. JW. Crank and Flywheel shafts - Intermediate shafts -

Crank shaft Material O.H. Steel. Tensile strength 39 Tons per sq. inch.
 Elongation 28% on 2" Identification Marks LLOYD'S 2,500 B.K. JW. 16.11
 Flywheel shaft, Material Identification Marks

Is this machinery duplicate of a previous case Yes Identification Marks
 Identification marks on Air Receivers

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This engine is constructed under special survey of tested materials and is in accordance with Secretary's letters, approved plans and Rule Requirements.

Materials and workmanship are of good quality and the engine when tested in the shops under load conditions gave satisfactory results.

In our opinion, this engine is suitable for installation in a vessel to be classed with this Society for the purpose intended.

Im. 11.42-T (MADE AND PRINTED IN ENGLAND). (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 4 : 0 : 0 When applied for 1-5-47 19
 Travelling Expenses (if any) £ 1 : 12 : 6. When received 19

R. J. Gordon *D. L. Taylor*
R. W. Allan and for *C. K. Knowles*
 Surveyor to Lloyd's Register of Shipping.

FRI. 29 AUG 1947

Committee's Minute
 Assigned See F. E. Welch. rpt.

