

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

AND COMPRESSOR

No. 11379

Date of writing Report

When handed in at Local Office

Port of

Received at London Office

25 FEB 1943

SEP 1943

No. in Survey held at **ASHTON-UNDER-LYNE**

Date, First Survey **15 Jan. 1943** Last Survey **5 Feb. 1943**

Number of Visits **Three**

Single
on the Twin
Triple
Quadruple

Screw vessel

EMPIRE VICEROY

Tons { Gross
Net

Built at **BARROW**

By whom built **Vickers Armstrongs Ltd.** Yard No. **858**

When built

Owners

Richardsons Westgarth & Co. Main Engine No. 2734.

Port belonging to

Oil Engines made at **Ashton-under-Lyne** By whom made **National Gas & O.E.Co.** Engine No. **56620.** When made **1943.**

Generators made at **Stockport** By whom made **Mc.Clure & Whitfield.** Generator No. **9480.** When made **1943.**

No. of Sets **One** Engine Brake Horse Power **20** Nom. Horse Power as per Rule **3.3** Total Capacity of Generators **10** Kilowatts.

IL ENGINES, &c.—Type of Engines **Vertical Solid Injection.** 2 or 4 stroke cycle **4** Single or double acting **Single.**

Maximum pressure in cylinders **750 lbs/sq"** Diameter of cylinders **4 1/8"** Length of stroke **6"** No. of cylinders **Two** No. of cranks **Two.**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **5 1/8"**

Revolutions per minute **1000** Flywheel dia. **25"** Weight **337 lbs.** Means of ignition **Compression** Is there a bearing between each crank **Yes.**

Kind of fuel used **Direct Oil.**

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

Flywheel Shaft, diameter **3"** as per Rule **Intermediate Shafts, diameter** as per Rule **Thickness of cylinder liners** **3/8"**

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. **One** Centrifugal Type the sea suction provided with an efficient strainer which can be cleared within the vessel **-**

Lubricating Oil Pumps, No. and size **One** incorporated in Engine.

Air Compressors, No. **One** No. of stages **Two** Diameters **See Certificate No. D.7339 herewith.** Stroke **Clutch.**

Scavenging Air Pumps, No. **-** Diameter **-** Stroke **-** Driven by **-**

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 **-**

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 **45.5** Amperes. Direct or Alternating Current **Direct.**

Is an 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 **-** is an adjustable regulating resistance fitted in series with each **-**

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 **-**

ANS. Are approved plans forwarded herewith for Shafting **26.3.42.** Receivers **-** Separate Tanks **-**

ARE GEAR AS PER RULE REQUIREMENTS.

The foregoing is a correct description,

K. Keonell

THE NATIONAL GAS AND OIL ENGINE Co. Ltd. Manufacturer.



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Lloyd's Register Foundation

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Dates of Survey while building { During progress of work in shops - - 1943. Jan:15, 29. Feb:5.
During erection on board vessel - - -
Total No. of visits Three.

Dates of Examination of principal parts—Cylinders 15.1.43. Covers 29.1.43. Pistons 15.1.43. Piston rods -
Connecting rods 5.2.43. Crank and Flywheel shafts 15.1.43. Intermediate shafts -
Crank and Flywheel shafts, Material O.H. Steel. Identification Marks LLOYD'S 1504 FH. 15.10.42.
Intermediate shafts, Material - 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 HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE, WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHEWED SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

Satisfactorily fitted on board.
Edw Knowles
Barrow.

The amount of Fee ... £ 4 : 4 : - When applied for, 23/4/43. 1944.
Travelling Expenses (if any) £ - : 15/- When received, 19.....

Edw Knowles
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 14 SEP 1943

Assigned see minute on Rev J.E. Rpt.

