

Empire Allenby 633  
NEWCASTLE-CO-LYNE No. 102944  
N.E.M. 3074 mach

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11994.

Received at London Office

Date of writing Report **2.10.1944** When handed in at Local Office **9.10.1944** Port of **MANCHESTER.**  
No. in Survey held at **MANCHESTER.** Date, First Survey **16.6.44.** Last Survey **25.9.1944.**  
Reg. Book. Number of Visits **Three.**

on the <sup>Single</sup> ~~Triple~~ Screw vessel **1/3 EMPIRE ALLENBY**  
Built at **Sunderland** By whom built **J.L. THOMPSON & CO LTD YARD No 633** <sup>Main Eng.</sup> ~~Richardsons Westgarth Co.~~ <sup>Built June 1945.</sup> ~~xxxx No. 2747.~~ When built **1944.**

Owners Port belonging to **Engine**  
Oil Engines made at **ASHTON-U-LYNE.** By whom made **National Gas & O.E.Co. Ltd.** No. **57458.** When made **1944.**  
Generators made at **STOCKPORT.** By whom made **McClure & Whitfield.** <sup>Generator</sup> ~~xxxx~~ No. **9902.** When made **1943**  
No. of Sets **One.** Engine Brake Horse Power **20** Nom. Horse Power as per Rule **5.7** Total Capacity of Generators **10** Kilowatts.

**OIL 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** 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"** Is there a bearing between each crank **Yes.**  
Revolutions per minute **1000** Flywheel dia. **25"** Weight **337 lbs.** Means of ignition **Compression** Kind of fuel used **Direct Oil.**  
Crank Shaft, dia. of journals <sup>as per Rule</sup> **Approved.** <sup>as fitted</sup> **2 3/8"** Crank pin dia. **2 3/8"** Crank Webs <sup>Mid. length breadth</sup> **3 1/2"** <sup>Mid. length thickness</sup> **1.5/16"** Thickness parallel to axis **-** Thickness around eye-hole **Solid.**  
Flywheel Shaft, diameter <sup>as per Rule</sup> **Intermediate Shafts, diameter** <sup>as fitted</sup> **3"** 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. **1 Centrifugal Type.** Is 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.** <sup>Reavell.</sup>  
Air Compressors, No. **One.** No. of stages **2** Diameters **No. 83467.** Stroke **-** Driven by **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 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 **45.5** Amperes. Direct or Alternating Current **Direct.**  
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  
Generators, are they compounded as per rule is an adjustable regulating resistance fitted in series with each shunt field  
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 **3.2.43.** Receivers Separate Tanks  
**SPARE GEAR AS PER RULE REQUIREMENTS.**

*This 20 BHP oil engine with air compressor and Elec. generator have been efficiently fitted & tested under working conditions on board 1/3 EMPIRE ALLENBY*

*J.L. Thompson & Co Yard No 633.  
(N.E. Mar. E. Co machy installing)  
no 3074*

*Awatt  
Newcastle on Tyne  
10/6/45*

The foregoing is a correct description,

THE NATIONAL GAS AND OIL ENGINE Co. Ltd

*J.L. Thompson*

Manufacturer.



Lloyd's Register Foundation

CEIVE  
Rpt. 4c.  
3 NOV 1944  
N D.O.  
Date of writing  
No. in S  
Reg. Book.  
Built at  
Owners  
Oil Engine  
Air Comp  
No. of Sets

Dates of Survey while building  
 { During progress of work in shops - - )  
 { During erection on board vessel - - - )  
 Total No. of visits

16.6.44. 21.6.44. 25.9.44.

Dates of Examination of principal parts—Cylinders 16.6.44.AS. Covers 21.6.44.AS. Pistons - Piston rods -

Connecting rods 16.6.44. AS. Crank and Flywheel shafts 30.12.43. FH. Intermediate shafts -

Crank and Flywheel shafts, Material O. H. Steel. Identification Marks 1921. 30.12.43. FH.

Intermediate shafts, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Richardson's Westgarth Ship No. 2734/5

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 WORKMANSHIP AND MATERIALS ARE GOOD AND THE ENGINE, WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS, GAVE SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

Im. 439.—Transferred. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 5 : 5 0 } When applied for, 7.10.19 44.  
 Travelling Expenses (if any) £ - : - : } When received, 19.....

*A. G. Smith*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 20 JUL 1945  
 Assigned. See F.E. machy rpt.