

RECEIVED

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11892

18 JUL 1944

16 NOV 1944

Date of writing Report 13th July 44 When handed in at Local Office 15th July 44 Port of MANCHESTER.

No. in Survey held at ASHTON-UNDER-LYNE. Date, First Survey 28.4.44. Last Survey 13.7. 1944. Reg. Book. Number of Visits Three.

on the ~~Four~~ <sup>Single</sup> Triple Screw vessel EMPIRE RAWLINSON Tons { Gross Net

Main Engine Built at GREENOCK. By whom built J. G. Kincaid & Co. Ltd. Main Eng. No. K.155 When built 1944.

Owners M. O. W. T. Port belonging to

Oil Engines made at ASHTON-U-LYNE. By whom made National Gas & O.E.Co. Generator No. 58100 When made 1944.

Generators made at STOCKPORT. By whom made McClure & Whitfield. Generator No. 9900. When made 1944.

No. of Sets One Engine Brake Horse Power 30 Nom. Horse Power as per Rule 8.5 Total Capacity of Generators 15 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 1000 lbs/sq" Diameter of cylinders 4 1/8" Length of stroke 6" No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4.9/16" Is there a bearing between each crank Yes.

Revolutions per minute 1000 Flywheel dia. 22 1/2" Weight 280 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule 3 1/2" Crank pin dia. 3" Crank Webs Mid. length breadth 4.4" Thickness parallel to axis —

Flywheel Shaft, diameter 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 Governor 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 incorporated in Engine. 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. Reavell No.

Air Compressors, No. One No. of stages Two Diameters 8 1/2" 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 68 Amperes. Direct or Alternating Current Direct.

If alternating current system, state the periodicity — Has the Automatic Governor been tested and found efficient when the whole 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

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 23.9.43. Receivers — Separate Tanks —

SPARE GEAR AS PER RULE REQUIREMENTS.

Males originally required to be 1 1/4", but .99" agreed to provided yield point be not less than 36 tons. Actual yield point found to be 30.4 tons, but shafts accepted 4-7-44. L.J.

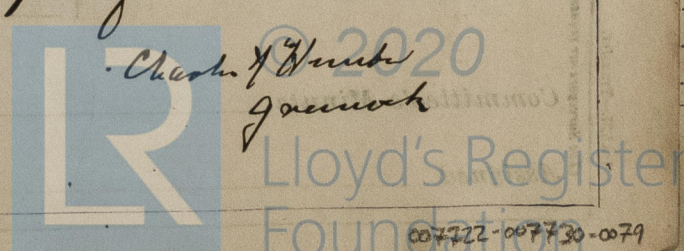
This engines have been efficiently installed in the vessel & tested under full load with satisfactory results. Please see machinery report for recommendations.

The foregoing is a correct description,

THE NATIONAL GAS AND OIL ENGINE Co. Ltd.

Manufacturer.

*[Signature]*





Dates of Survey while building { During progress of work in shops - - } 28.4.44, 30.6.44, 13.7.44.  
{ During erection on board vessel - - - }  
Total No. of visits

Dates of Examination of principal parts—Cylinders 28.4.44. Covers 30.6.44. Pistons 30.6.44. Piston rods 30.6.44.

Connecting rods 30.6.44. Crank and Flywheel shafts 30.6.44. Intermediate shafts -

Crank and Flywheel shafts, Material 0. H. Steel. Identification Marks M.314. Lloyd's Brinell Test 30.6.44. A.S. N.1770.

Intermediate shafts, Material - 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 HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. A STOCK CRANKSHAFT HAS BEEN FITTED IN ACCORDANCE WITH THE SECRETARY'S LETTER OF 4TH JULY, 1944. THE MATERIALS AND WORKMANSHIP ARE OF GOOD QUALITY AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS SHOWED SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

The amount of Fee ... £ 6 : 6 : 0 When applied for, 15.7.19.44.  
Travelling Expenses (if any) £ 0 : 10 : 0 When received, 19.

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

Committee's Minute GLASGOW 14 NOV 1944

Assigned