

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12017

Received at London Office 9 Nov 1944
MANCHESTER.

Date of writing Report 2. 11. 1944 When handed in at Local Office 6. 11. 1944 Port of

No. in Survey held at MANCHESTER. Date, First Survey 22.9.43. Last Survey 27. 10. 19 44.
Reg. Book. Number of Visits 3

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel 1/2 EMPIRE ALLENBY

Built at Sunderland By whom built J.L. THOMPSON & Co. Ld. YARD No 633 Main Eng. Built. 1945-6 mo. Richardsons Westgarth Ld. Yard No. 2736 When built 1944.

Oil Engines made at ASHTON-U-LYNE. By whom made National Gas & O.E.Co. Engine No. 57091. When made 1944.
Air Compressor made at IPSWICH. By whom made Reavell & Co. Ld. Compressor No. 83464. When made 1943.

No. of Sets One Engine Brake Horse Power 5 Nom. Horse Power as per Rule 1.4 Total Capacity of Generators - 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 725 lbs/sq in Diameter of cylinders 3 3/4" Length of stroke 5 1/2" No. of cylinders 1 No. of cranks 1

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 7/8" Is there a bearing between each crank -

Revolutions per minute 800 Flywheel dia. 22 1/2" Weight 235 lbs. Means of ignition - Kind of fuel used Diesel.

Crank Shaft, dia. of journals 2" as per Rule Approved. Crank pin dia. 2 1/8" Mid. length breadth 3 1/4" Thickness parallel to axis -
as fitted 2" Crank webs 1 1/8" Mid. length thickness 1 1/8" Thickness around eye hole Solid

Flywheel Shaft, diameter 2 1/8" as per Rule - Intermediate Shafts, diameter 2 1/8" as per Rule - Thickness of cylinder liners 3/8"
as fitted - as fitted - as fitted -

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Splash.

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

Air Compressors, No. One No. of stages Two Diameter Reavell No. 83464 Stroke Driven by Direct.

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

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

Generators, are they compounded as per rule is an adjustable regulating resistance fitted in series with each shunt field

Are all terminals accessible, clearly marked, and furnished with sockets

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule

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

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

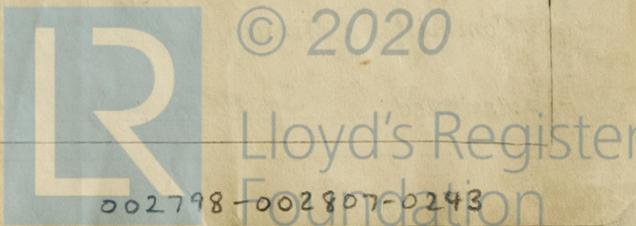
PLANS. Are approved plans forwarded herewith for Shafting 8.4.42. Receivers Separate Tanks

SHAFTING AS PER RULE REQUIREMENTS.

This 5 BHP Oil Engine/Air Compressor Set has been efficiently fitted & tested on board 1/2 EMPIRE ALLENBY. J.L. Thompson's Yard No 633.

*Admitt
Newcastle on Tyne
10/6/45*

The foregoing is a correct description,
THE NATIONAL GAS AND OIL ENGINE Co. Ltd. *Reavell* Manufacturer.



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Dates of Survey while building
 During progress of work in shops - - 22.9.43. 30.7.43. 27.10.44.
 During erection on board vessel - - -
 Total No. of visits
 Dates of Examination of principal parts - Cylinders 22.9.43. Covers 22.9.43. Pistons - Piston rods -
 Connecting rods 22.9.43. Crank and Flywheel shafts 30.7.43. Intermediate shafts
 Crank and Flywheel shafts, Material O. H. Steel. Identification Marks LLOYD'S M.128. 30.7.43. AGS.
 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 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. 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. 4.30. - Transfer. (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 : 4 : 0 When applied for, 19.....
 Travelling Expenses (if any) £ 0 : 10 : 0 When received, 19.....

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

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



Rpt. 13.
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