

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12438.

Received at London Office 7- FEB 1946

Date of writing Report 24th Jan. 19 46 When handed in at Local Office 31st Jan. 19 46 Port of MANCHESTER.

No. in Survey held at ALTRINCHAM. Date, First Survey 7th Nov. 1945. Last Survey 1st December 1946. Reg. Book.

Number of Visits Four.

Single
on the Twin
Triple
Quadruple } Screw vessel Commonwealth of Australia. "B" and "D" Class Freighters. Tons { Gross
Net

Built at By whom built Yard No. When built

Owners Port belonging to

Oil Engines made at Altrincham. By whom made Russell Newbery & Co. Ltd. Engine No. 3959. When made 1945.

Generators made at Bedford. By whom made W.H. Allen Sons & Co. Ltd. Generator No. 54680/5 When made 1945.

No. of Sets 1 Engine Brake Horse Power 27 Nom. Horse Power as per Rule 7.7 Total Capacity of Generators 15 Kilowatts.

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

Maximum pressure in cylinders 800 lb/sq in 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 5.1/8" Is there a bearing between each crank Yes.

Revolutions per minute 1,000 Flywheel dia. 22" Weight 263 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft dia. of journals as per Rule Approved. 2.1/2" Crank pin dia. 2.3/8" Crank Webs Mid. length breadth 3.1/2" Thickness parallel to axis
as fitted 2.1/2" Mid. length thickness 1.5/16" Thickness round eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 11/32" as fitted

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-Plunger Type. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One-Gear Type.

Air Compressors, No. No. of stages Diameters Stroke Driven by

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, E.V.D.P.

Pressure of supply 220 volts Full Load Current 63 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 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

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 1.9.44. Receivers Separate Tanks

SPARE GEAR As per Rule Requirements.

The foregoing is a correct description,

per pro. RUSSELL, NEWBERY & Co. Ltd.

Manufacturer.

DIRECTOR



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Foundation

010484-010494-0351

Dates of Survey while building { During progress of work in shops - - 1945: November 7, 17, 19, December, 11.
During erection on board vessel - -
Total No. of visits Four.

Dates of Examination of principal parts—Cylinders 17.11.45. Covers 17.11.45. Pistons 19.11.45. Piston rods -
Connecting rods 7.11.45. Crank and Flywheel shafts 7.11.45. Intermediate shafts -
Crank shaft { Material O.H. Steel. Tensile strength 39.6 tons per sq. inch.
Elongation 29 %. Identification Marks Lloyd's 3277 F.H. 3.5.45.
Flywheel shaft, Material Identification Marks
Is this machinery duplicate of a previous case Identification Marks
Identification marks on Air Receivers.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Manchester Report No. 12248.

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 THE SHOP UNDER FULL LOAD CONDITIONS, SHOWED SATISFACTORY RESULTS. THE REQUIREMENTS OF NOTICE NO. 1803 CANCELLED AS PER NOTICE Nº 1837. HAVE, HOWEVER, NOT YET BEEN CARRIED OUT. WHEN THIS HAS BEEN DONE AND APPROVED THE ENGINE WILL, IN MY OPINION, BE SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED. COPIES OF CERTIFICATES COVERING GENERATOR AND CRANKSHAFT ATTACHED HERewith.

The amount of Fee ... £ 4 : 4 : 0. { When applied for 31.1.46. 19
Travelling Expenses (if any) £ - : 12 : 0. { When received 19

FRI. 5 MAR 1948

Committee's Minute

Assigned In minute see J-E Rfr. NWC. N.S.W 5075

Surveyor to Lloyd's Register of Shipping.



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