

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12249

Received at London Office 23 JUL 1945

Date of writing Report 17th July 1945. When handed in at Local Office 20th July 1945. Port of MANCHESTER.

No. in Survey held at ALTRINCHAM. Date, First Survey 31st May Last Survey 3rd July 1945. Reg. Book. Number of Visits 4.

Single on the Twin Triple Quadruple } Screw vessel. Tons Gross Net. 1302

Built at GLASGOW. By whom built A & J. Inglis Ltd. Yard No. J. 286 When built 1945.

Owners. Port belonging to.

Oil Engines made at ALTRINCHAM. By whom made Russell, Newbery & Co. Ltd. Engine No. 3888. When made 1945.

Generators made at STOCKPORT. By whom made McClure & Whitfield Ltd. Generator No. 10230. When made 1945.

No. of Sets 1. Engine Brake Horse Power 36. Nom. Horse Power as per Rule 10.3. Total Capacity of Generators 18 Kilowatts.

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

Maximum pressure in cylinders 860 lbs/sq" Diameter of cylinders 4 1/8" Length of stroke 6" No. of cylinders 4 No. of cranks 4

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 22" Weight 263 lbs. Means of ignition Compression. Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule Approved. as fitted 2 1/8" Crank pin dia. 2 3/8" Crank Webs Mid. length breadth 3 1/2" Thickness parallel to axis 1.5/16" 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"

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. 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 V.E. Louvred type.

Pressure of supply 110 volts Full Load Current 163 1/2 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. J. Johnson DIRECTOR



Dates of Survey while building { During progress of work in shops - - } 1945. May 31, June 25, 26, July 3.  
 { During erection on board vessel - - }  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 31.5.45. Covers 25 & 26.6.45 Pistons 31.5.45. Piston rods  
 Connecting rods 31.5.45. Crank and Flywheel shafts 31.5.45. Intermediate shafts -

Crank shaft { Material O. H. Steel. Tensile strength  
 Elongation Identification Marks LLOYD'S 3272 FH. 19.4.45.

Flywheel shaft, Material Identification Marks

Is this machinery duplicate of a previous case Identification Marks

Identification marks on Air Receivers  
 Hamworthy Eng. Co. Air Compressor N° 64851.

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 SPEC 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 SHewed SATISFACTORY RESULTS. THE REQUIREMENTS OF NOTICE NO. 1 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.

Not dealt with for Class 1803.

The amount of Fee ... £ 4 : 4 : 0 When applied for 21. 7. 19 45.  
 Travelling Expenses (if any) £ 0 : 12 : 6 When received 19

Committee's Minute  
 Assigned See attached machinery report

GLASGOW 28 DEC 1945

Surveyor to Lloyd's Register of Shipping.  
 Lloyd's Register Foundation

In, L. 12. - T (CLASS AND ENTREE IN VESSELS). (The Surveyors are requested not to write on or below the space for Committee Minutes.)

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