

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

4 AUG 1944

Date of writing Report 27.7. 19 44 When handed in at Local Office 1. 8. 44. Port of MANCHESTER. Received at London Office E3 AU
No. in Survey held at PATRICROFT, MANCHESTER. Date, First Survey 16.11.43. Last Survey 25.7. 19 44.
Reg. Book. Number of Visits 3

on the ^{Single} Twin ^{Triple} Screw vessel COASTING TANKER "EMPIRE TAPLEY" Tons { Gross Net

Built at NORTHWICH By whom built J. Pimblott & Sons Ltd., Yard No. 662 When built 1944.

Owners - Port belonging to - PF

Oil Engines made at PATRICROFT By whom made L. GARDNER & SONS. ENGINE 60445 No. 60437 When made 1944

Generators made at SUNDERLAND By whom made Sunderland Forge & Eng. Co. GENERATOR 62669 & 62671 When made 1944

No. of Sets 2 Engine Brake Horse Power 19 total Nom. Horse Power as per Rule 5.4 Total Capacity of Generators 10 Kilowatts.

IL ENGINES, &c. Type of Engines Heavy oil 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 850 lb " Diameter of cylinders 4.25" Length of stroke 6" No. of cylinders One No. of cranks One

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.5" Is there a bearing either side of crank yes

Revolutions per minute 1000 Flywheel dia. 26" Weight 511 lbs Means of ignition Compression Kind of fuel used heavy oil

Crank Shaft, dia. of journals as ~~XXXX~~ approved & as fitted 2.625" Crank pin dia. 2.625" Crank Webs Mid. length breadth 4" Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule FLYWHEEL MOUNTED ON Intermediate Shafts, diameter as fitted - Thickness of cylinder liners .096"

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

Lubricating Oil Pumps, No. and size One .8125" diam. x .5" stroke

Air Compressors, No. One No. of stages 2 Diameters 4.5" & 1.875" Stroke 2.75" Driven by engine through 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, totally enclosed.

Pressure of supply 110 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 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 21.9.43. Receivers - Separate Tanks -

SPARE GEAR As per Rule requirements.

The foregoing is a correct description, for and on behalf of L. Gardner & Sons Ltd.

R. E. Jones Manufacturer.



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Dates of Survey while building { During progress of work in shops - - 16.11.43, 4.7.44, 25.7.44. During erection on board vessel - - - Total No. of visits

Dates of Examination of principal parts—Cylinders 16.11.43. Covers 16.11.43. Pistons 16.11.43. Piston rods - Connecting rods 1.12.43. Crank and Flywheel shafts 20.8.43. Intermediate shafts - Crank and Flywheel shafts, Material O.H. STEEL Identification Marks LLOYD'S NO. W.1078 & W.1079. ELK 20.8.43. 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 J.Pimblott's No. 655 Mch. Rpt. 10622

General Remarks (State quality of workmanship, opinions as to class, &c. THESE ENGINES HAVE BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND REQUIREMENTS OF THE RULES.

THE MATERIALS AND WORKMANSHIP ARE GOOD AND THE ENGINES WERE FOUND TO BE SATISFACTORY WHEN TESTED IN SHOP UNDER FULL WORKING CONDITIONS. THE ENGINES ARE SUITABLE, IN MY OPINION, FOR FITTING ON BOARD A VESSEL BUILDING TO THE CLASS OF THIS SOCIETY.

IN ADDITION TO THEIR ELECTRIC GENERATORS THESE ENGINES DRIVE THE FOLLOWING MACHINERY:- ENGINE NO. 60445.

1 - GARDNER T.S.I. AIR COMPRESSOR NO. 809 THROUGH A CLUTCHED DRIVE.

ENGINE NO. 60437.

1 - GENERAL SERVICE PUMP SUPPLIED BY MESSRS. DAWSON & DOWNIE LTD., NO. 19364 THROUGH A CLUTCHED DRIVE.

The amount of Fee ... £ 8 : 8 : When applied for, 1/8/1944 Travelling Expenses (if any) £ : 10 : When received, 19

W. J. Ferguson. A. Fowler. Surveyors to Lloyd's Register of Shipping.

Committee's Minute

LIVERPOOL 20 FEB 1945

Assigned

See Minute on Liverpool S. Machinery Report.



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