

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 9614

JUN 10 1939

Date of writing Report 27. May 1939 When handed in at Local Office 9. JUNE 1939 Port of MANCHESTER
 No. in Survey held at MANCHESTER Date, First Survey 11 APRIL 1939 Last Survey 23. May 1939
 Reg. Book. MANCHESTER Number of Visits 3
 on the Single Twin Triple Quadruple Screw vessel ABERCRAIG Tons { Gross 445 Net 191
 Built at PAISLEY By whom built MESSRS FLEMING & FERGUSON Yard No. 550 When built 1939
 Owners DUNDEE HARBOUR TRUST Port belonging to DUNDEE
 Oil Engines made at MANCHESTER By whom made L. GARDNER & SONS. LD ENGINE Contract No. 46142 When made 1939
 Generators made at By whom made BRUSH ELECTRICAL CO. GENERATOR Contract No. 23205 When made 1939
 No. of Sets ONE Engine Brake Horse Power 9.5 Nom. Horse Power as per Rule 2.7 Total Capacity of Generators 2.5 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 650 LBS/SQ Diameter of cylinders 4 1/4" 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 1/2" Is there a bearing between each crank —
 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 per Rule APPROVED as fitted 2 5/8" Crank pin dia. 2 5/8" Crank Webs Mid. length breadth 4" Thickness parallel to axis SOLID
 as fitted 2 5/8" Mid. length thickness 1 3/8" Thickness around eye-hole —
 Flywheel Shaft, diameter as per Rule — as fitted — Intermediate Shafts, diameter as per Rule — as fitted — Thickness of cylinder liners 0.96"
 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 3/16" DIA x 1/2" STROKE APPROX. 28 GALLS. PER HR.
 Air Compressors, No. ONE No. of stages TWO Diameters 4.5" / 1.875" Stroke 2.75" Driven by AUX. ENGINE
 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 110 volts.

Full Load Current

22.75

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

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 YES

(If not, state date of approval)

Receivers

Separate Tanks

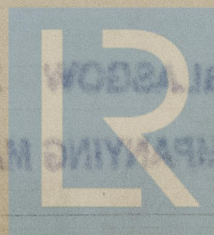
SPARE GEAR

The foregoing is a correct description,
L. GARDNER & SONS LD.

William Gardner

Director.

Manufacturer.



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006797-006808-0240

Dates of Survey while building { During progress of work in shops - 1939 April 11, 14 MAY 23
 During erection on board vessel - - -
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 11-4-39 Covers 11-4-39 Pistons 11-4-39 Piston rods -

Connecting rods 11-4-39 Crank and Flywheel shafts 11-4-39 Intermediate shafts -

Crank and Flywheel shafts, Material STEEL Identification Marks 40405 91472 LW 25-12-38

Intermediate shafts, Material Identification Marks -

Identification marks on Air Receivers.

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 AND COMPRESSOR HAVE BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND ARE IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE SET WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHewed SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE AND COMPRESSOR ARE SUITABLE TO BE PLACED ON BOARD A VESSEL, CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

The amount of Fee ... £ 4 : 4 : 0 When applied for, 30.5.1939

Travelling Expenses (if any) £ : 6 : 0 When received, 8.7.1939

Committee's Minute

GLASGOW 31 OCT 1939

Assigned

SEE ACCOMPANYING MACHINERY REPORT.

J. Meicester.
 Surveyor to Lloyd's Register of Shipping.



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