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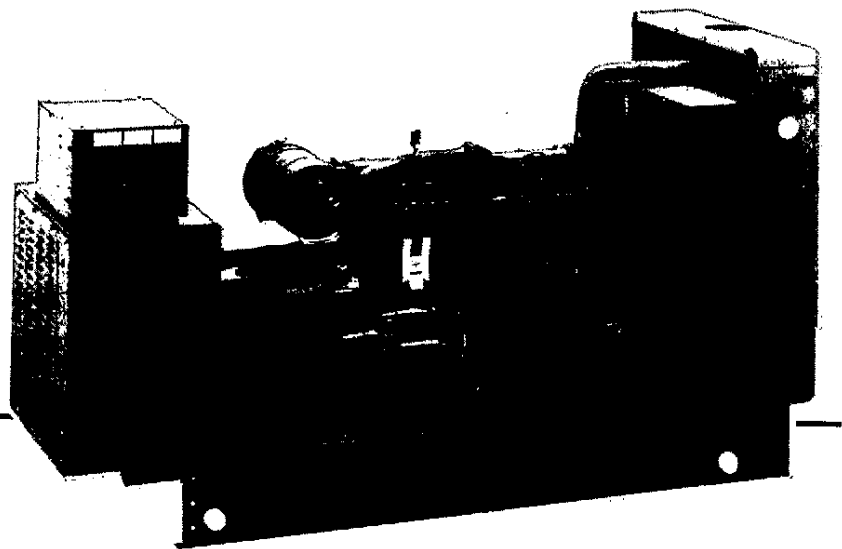
Service Manual

DL4B

DL6B

DL6TB

Generator and Controls



Part 2, Section 12
Master Service Manual

900-0339
11/84
Printed in U.S.A.

Safety Precautions

The following symbols in this manual highlight conditions potentially dangerous to service personnel, or equipment. Read this manual carefully. Know when these conditions can exist. Then take necessary steps to protect personnel as well as equipment.

WARNING

This symbol is used throughout the manual to warn of possible serious personal injury.

CAUTION

This symbol refers to possible equipment damage.

PROTECT AGAINST MOVING PARTS

Avoid moving parts of the unit. Avoid use of loose jackets, shirts or sleeves due to danger of becoming caught in moving parts.

Make sure all nuts and bolts are secure. Keep power shields and guards in position.

If you must make adjustments while the unit is running, use extreme caution around hot manifolds,

moving parts, etc.

Do not work on this equipment when mentally or physically fatigued.

GUARD AGAINST ELECTRIC SHOCK

Disconnect electric power before removing protective shields or touching electrical equipment. Use rubber insulative mats placed on dry wood platforms over floors that are metal or concrete when around electrical equipment. Do not wear damp clothing (particularly wet shoes) or allow skin surfaces to be damp when handling electrical equipment.

Disconnect batteries to prevent accidental engine start. Jewelry is a good conductor of electricity and should be removed before working on electrical equipment.

Use extreme caution when working on electrical components. High voltages cause injury or death.

Follow all state and local codes. To avoid possible personal injury or equipment damage, a qualified electrician or an authorized service representative must perform installation and all service.

WARNING

EXHAUST GAS IS DEADLY!

Exhaust gases contain carbon monoxide, a poisonous gas that might cause unconsciousness and death. It is an odorless and colorless gas formed during combustion of hydrocarbon fuels. Symptoms of carbon monoxide poisoning are:

- Dizziness
- Headache
- Weakness and Sleepiness
- Vomiting
- Muscular Twitching
- Throbbing in Temples

If you experience any of these symptoms, get out into fresh air immediately, shut down the unit and do not use until it has been inspected.

The best protection against carbon monoxide inhalation is proper installation and regular, frequent visual and audible inspections of the complete exhaust system. If you notice a change in the sound or appearance of exhaust system, shut the unit down immediately and have it inspected and repaired at once by a competent mechanic.

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Introduction

ABOUT THIS MANUAL

For servicing purposes, the generator set can be divided into three basic parts: the engine, the generator, and the controls. This manual covers troubleshooting and repair information for the generator and the controls. Refer to the L Engine Service Manual (934-0750) when servicing the engine.

This manual has separate sections for the generator and voltage regulator, engine control, and associated wiring diagrams. While the wiring diagrams at the end of the manual are included to help trace or isolate problems, it is suggested that service personnel use the wiring diagrams shipped with the unit for troubleshooting.

Repair information for printed circuit boards is not extensive because the solid state printed circuit boards lend themselves more to replacement than repair. Application of meters or hot soldering irons to printed circuit boards by other than qualified personnel can cause expensive damage. Repair of the printed circuit boards is not recommended except by the factory. A return and exchange service has been initiated whereby faulty printed circuit boards can be returned to the Distributor and exchanged for good units. For more information, contact your Onan Distributor.

CAUTION *High voltage or high potential testing of generator windings can cause damage to solid state components. Isolate these components before testing.*

TEST EQUIPMENT

Most of the test procedures in this manual can be performed with an AC-DC multimeter such as a Simpson Model 260 VOM or a digital VOM. Some other instruments to have available are:

- Onan Multitester
- Wheatstone Bridge
- Kelvin Bridge
- Jumper Leads
- Onan Load Test Panel
- Variac
- AC Voltmeter
- DC Voltmeter

See Tool Catalog 900-0019.

WARNING

INCORRECT SERVICE OR REPLACEMENT OF PARTS MIGHT RESULT IN SEVERE PERSONAL INJURY AND/OR EQUIPMENT DAMAGE. SERVICE PERSONNEL MUST BE QUALIFIED TO PERFORM ELECTRICAL AND/OR MECHANICAL SERVICE.

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