

**JOHN DEERE**  
**WORLDWIDE COMMERCIAL & CONSUMER**  
**EQUIPMENT DIVISION**

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**Garden Tractors**  
**GT225, GT235, GT235E and GT245**

TM1756 MARCH 2005

**TECHNICAL MANUAL**



**JOHN DEERE**

North American Version  
Litho in U.S.A.

# INTRODUCTION

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## Manual Description

This technical manual is written for an experienced technician and contains sections that are specifically for this product. It is a part of a total product support program.

The manual is organized so that all the information on a particular system is kept together. The order of grouping is as follows:

- Table of Contents
- Specifications and Information
- Identification Numbers
- Tools and Materials
- Component Location
- Schematics and Harnesses
- Theory of Operation
- Operation and Diagnostics
- Diagnostics
- Tests and Adjustments
- Repair
- Other

***NOTE: Depending on the particular section or system being covered, not all of the above groups may be used.***

The bleed tabs for the pages of each section will align with the sections listed on this page. Page numbering is consecutive from the beginning of the Safety section through the last section.

We appreciate your input on this manual. If you find any errors or want to comment on the layout of the manual please contact us.

**Safety**

**Specifications and Information**

**Engine - Kohler**

**Engine - Briggs & Stratton**

**Engine - Kawasaki (FH580V)**

**Engine - Kawasaki (FH601V)**

**Electrical**

**Power Train - Hydrostatic**

**Steering**

**Attachments**

**Miscellaneous**

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# SAFETY

## Recognize Safety Information



MIF

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

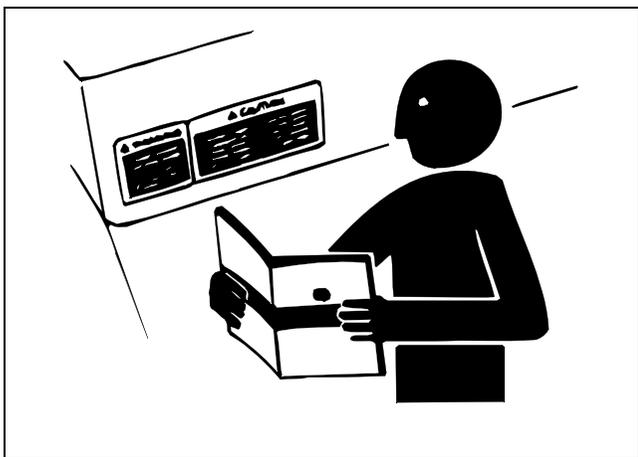
Follow recommended precautions and safe servicing practices.

## Understand Signal Words

A signal word - DANGER, WARNING, or CAUTION - is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

## Replace Safety Signs

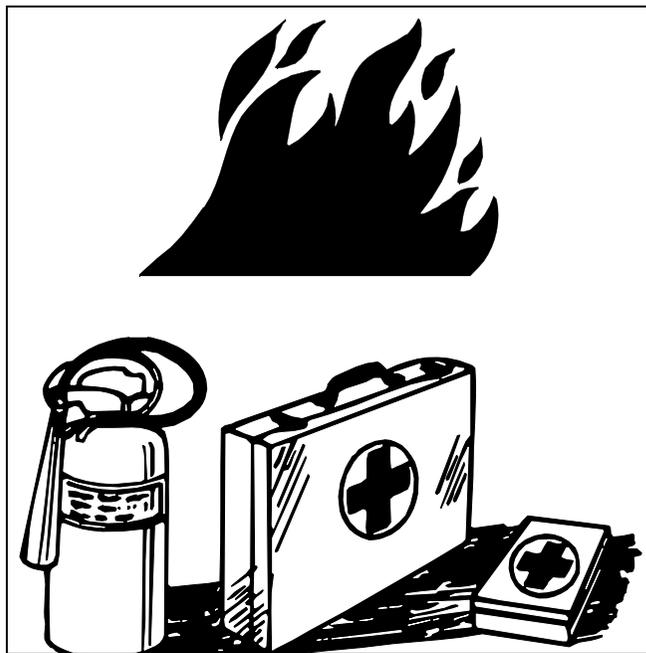


MIF

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.

## Handle Fluids Safely - Avoid Fires

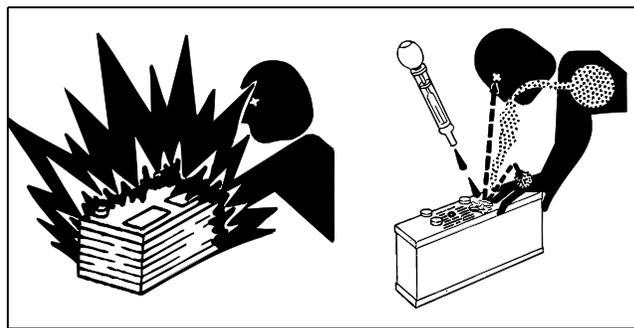
### Be Prepared For Emergencies



MIF

- When you work around fuel, do not smoke or work near heaters or other fire hazards.
- Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.
- Make sure machine is clean of trash, grease, and debris.
- Do not store oily rags; they can ignite and burn spontaneously.
- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

## Use Care In Handling and Servicing Batteries



MIF

# SAFETY

## Prevent Battery Explosions

- Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.
- Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.
- Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

## Prevent Acid Burns

- Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

### Avoid acid burns by:

1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

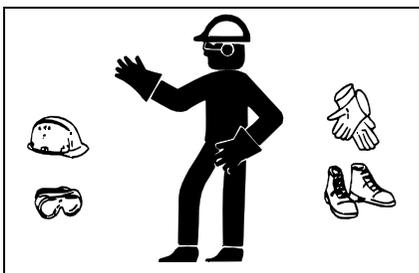
### If you spill acid on yourself:

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 10 - 15 minutes.
4. Get medical attention immediately.

### If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.

## Wear Protective Clothing



MIF

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device

such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

## Use Care Around High-Pressure Fluid Lines

### Avoid High-Pressure Fluids



MIF

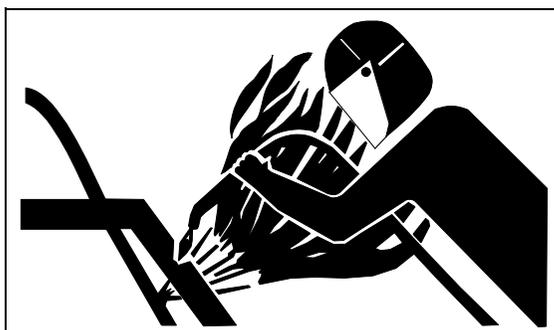
Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid injury from escaping fluid under pressure by stopping the engine and relieving pressure in the system before disconnecting or connecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

### Avoid Heating Near Pressurized Fluid Lines

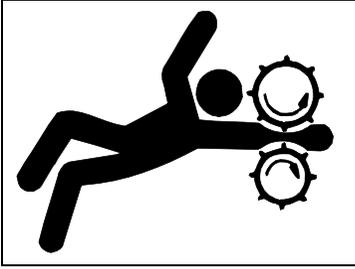


MIF

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area.

# SAFETY

## Service Machines Safely



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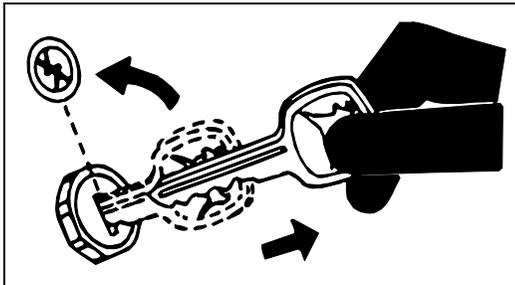
Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.

## Use Proper Tools

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards. Use power tools only to loosen threaded parts and fasteners. For loosening and tightening hardware, use the correct size tools. **DO NOT** use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches. Use only service parts meeting John Deere specifications.

## Park Machine Safely



MIF

### Before working on the machine:

1. Lower all equipment to the ground.
2. Stop the engine and remove the key.
3. Disconnect the battery ground strap.
4. Hang a "DO NOT OPERATE" tag in operator station.

## Using 120 Volt Electric Outlet System Safely

- 120 Volt electric outlet system is an on-board high-voltage generator. Failure to observe all safety messages may result in property damage, injury or death.
- Do not use 120 Volt electric outlet system as a backup for a main power source, such as in a house that is powered by a utility company. Doing so may cause a power backfeed that could electrocute utility workers or others who contact power lines.
- Do not use 120 Volt electric outlet system in an enclosed area. Engine gives off carbon monoxide. Breathing carbon monoxide can cause illness, unconsciousness or death.
- Do not use 120 Volt electric outlet system in wet conditions.
- Do not use 120 Volt electric outlet system if it does not pass all safety system tests.
- A ground fault occurs when, instead of following its normal safe path, electricity passes through a person's body to the ground. Ground fault circuit interrupter (GFCI) shuts off power to receptacle if it detects a ground fault.
- GFCI receptacle protects against ground faults. It does not protect against current overloads, short circuits or shocks.
- Do not use 120 Volt electric outlet system if electric power is lost and cannot be restored by resetting GFCI or 120 Volt electric outlet system.
- Do not use 120 Volt electric outlet system with hood open.
- Do not modify 120 Volt electric outlet system in any way.
- Perform only service functions described in this manual. For all other service, see a John Deere dealer.
- Use only John Deere approved replacement parts.
- Do not connect a battery charger to 120 Volt electric outlet system. Connecting this way may damage certain types of battery chargers.

**Thank you very much for reading.**

**Go back to the website, at its bottom.**

**There is a button. Complete the process. You can get this complete manual instantly. NO WAITING.**

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