

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

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**Lawn and Garden Tractors**  
**425 and 445**

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**OPERATOR'S MANUAL**



 **WARNING:** The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 Warning

**OMM144042 D0**

North American Version  
Litho in U.S.A.

# INTRODUCTION

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## Thank You for Purchasing a John Deere Product

We appreciate your business and wish you many years of safe and satisfied use of your machine.

## Using Your Operator's Manual

This manual is an important part of your machine and should remain with the machine when you sell it.

Reading your operator's manual will help you and others avoid personal injury or damage to the machine. Information given in this manual will provide the operator with the safest and most effective use of the machine. Knowing how to operate this machine safely and correctly will allow you to train others who may operate this machine.

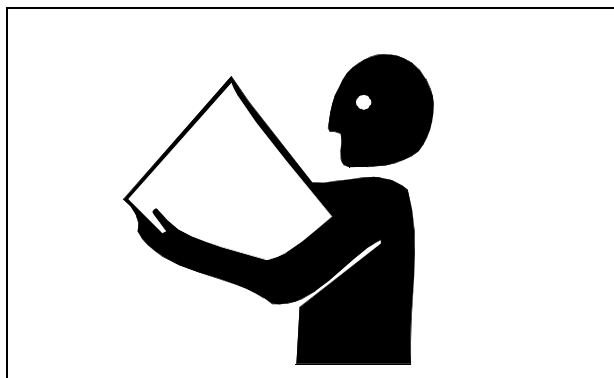
Section in your operator's manual are placed in a specific order to help you understand all the safety messages and learn the controls so you can operate this machine safely. YOU can also use this manual to answer any specific operating or servicing questions. A convenient index located at the end of this book will help you to find needed information quickly.

The machine shown in this manual may differ slightly from your machine, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow (----->), the item referred to is hidden from view.

## Special Messages

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the highlighted information carefully to avoid injury and machine damage.



**CAUTION: Avoid injury!**

This symbol and text highlight potential hazards or death to the operator or bystanders may occur if the hazards or procedures are ignored.

**IMPORTANT: Avoid damage!**

This text is used to tell the operator of actions or conditions that might result in damage to the machine.

**NOTE: General information is given throughout the manual that may help the operator in the operation of the machine.**

# PRODUCT IDENTIFICATION

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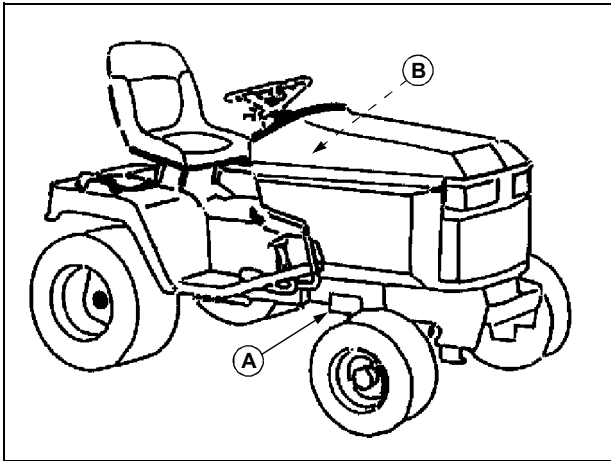
## Record Identification Numbers

### Lawn and Garden Tractors

**425 and 445** Serial No. (070001 - )

If you need to contact an Authorized Service Center for information on servicing, always provide the product model and serial number.

You will need to locate the model and serial number for the machine and for the engine of your machine and record the information in the spaces provided below.



DATE OF PURCHASE:

\_\_\_\_\_

DEALER NAME:

\_\_\_\_\_

DEALER PHONE:

\_\_\_\_\_

PRODUCT IDENTIFICATION NUMBER (A):

-----

ENGINE SERIAL NUMBER (B):

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# TABLE OF CONTENTS

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Safety .....	1
Operating .....	7
Replacement Parts .....	24
Service Interval Chart.....	25
Service Lubrication.....	26
Service Engine .....	28
Service Transmission.....	38
Service Electrical.....	40
Service Miscellaneous.....	46
Troubleshooting .....	50
Storing Machine.....	53
Assembly .....	54
Specifications .....	58
Warranty .....	62
Index.....	65

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Consumer Equipment Division  
Horicon, WI

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OMM144042 D0 - English

# SAFETY

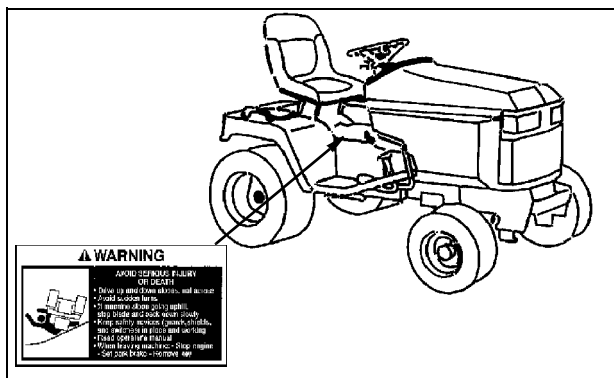
## Safety-Alert Symbol



Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.

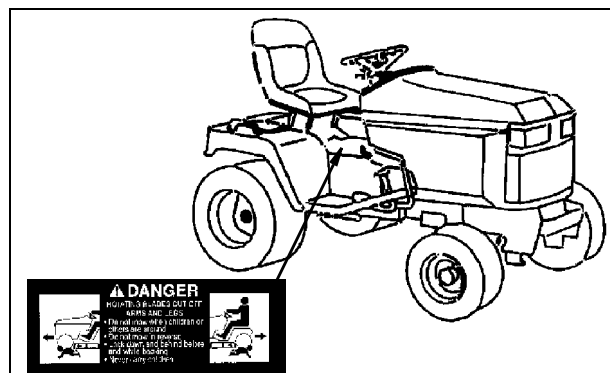
On your machine safety labels, the words **DANGER**, **WARNING**, and **CAUTION** are used with this safety-alert symbol. **DANGER** identifies the most serious hazards. In this manual, the word **CAUTION** and this symbol call attention to safety messages.

## WARNING: AVOID SERIOUS INJURY OR DEATH



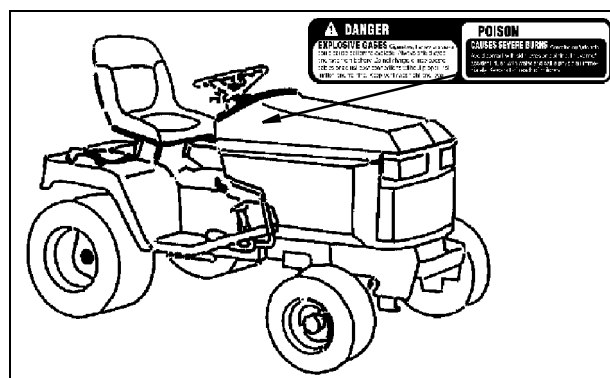
- Drive up and down slopes, not across.
- Avoid sudden turns.
- If machine stops going uphill, stop blade and back down slowly.
- Keep safety devices (guards, shields, and switches) in place and working.
- Read Operator's Manual.
- When leaving machine: Stop engine, Set park brake, Remove key.

## DANGER: ROTATING BLADES CUT OFF ARMS AND LEGS



- Do not mow when children or others are around.
- Do not mow in reverse.
- Look down and behind before and while backing.
- Never carry children even with the blades off.

## DANGER: EXPLOSIVE GASES



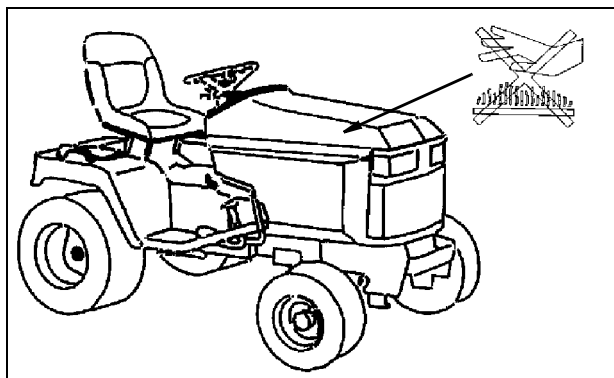
Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training. Keep vent caps tight and level.

## POISON: CAUSES SEVERE BURNS

Contains sulfuric acid. Avoid contact with skin, eyes or clothing. In event of accident, flush with water and call a physician immediately. Keep out of reach of children.

# SAFETY

## HOT SURFACE

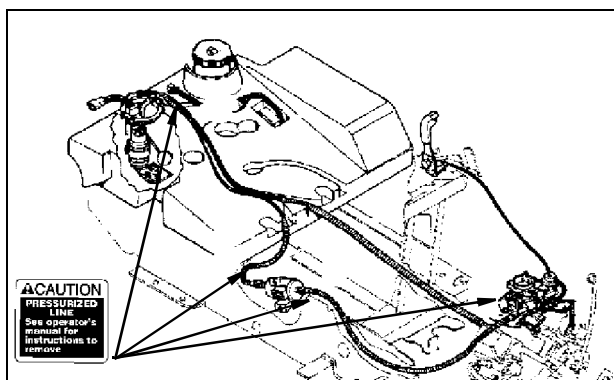


## Emission Compliance Period

If your engine has the emission compliance category listed on the emission control system certification or air index label, this indicates the number of operating hours for which the engine has been certified to meet EPA and/or CARB emission requirements. The following table provides the engine compliance period in hours associated with the category found on the certification label.

Agency	Category	Hours
EPA	C	250
EPA	B	500
EPA	A	1000
CARB	Moderate	125
CARB	Intermediate	250
CARB	Extended	500

## CAUTION: PRESSURIZED LINE



See operator's manual for instructions to remove.

## Certification

Your mower has been certified by an independent laboratory for compliance with American National Standard B-71.1, "Safety Specifications" for Power Lawn Mowers, Lawn and Garden Tractors, and Lawn Tractors.

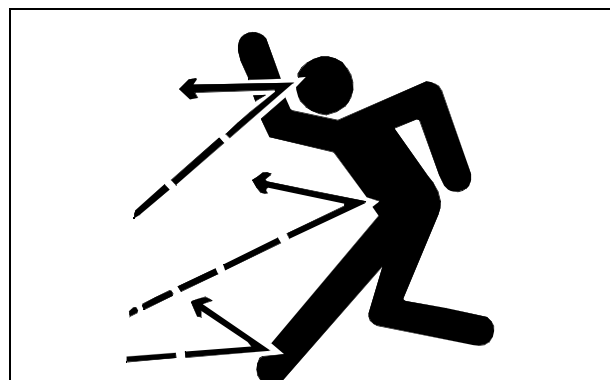
## Emission Control System Certification Label

**NOTE:** Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by EPA and/or CARB authorized service centers. Contact your John Deere Commercial and Consumer Equipment Retailer concerning emission controls and component questions.

The presence of an emissions label signifies that the engine has been certified with the United States Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB).

The emissions warranty applies only to those engines marketed by John Deere that have been certified by the EPA and/or CARB; and used in the United States and Canada in off-road mobile equipment.

## Operate Safely



- Check brake action before you operate. Adjust or service brakes as necessary.
- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.

# SAFETY

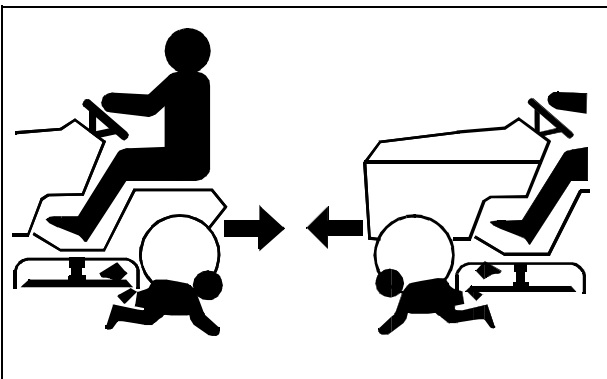
- Clear work area of objects that might be thrown. Keep people and pets out of the work area. Stop machine if anyone enters the area.
- If you hit an object, stop the machine and inspect it. Make repairs before you operate. Keep machine and attachments properly maintained and in good working order.
- DO NOT leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.
- Be careful of traffic when operating near or crossing roadways.
- Do not wear radio or music headphones while operating the machine. Safe operation requires your full attention.
- Older adults are involved in a large percentage of riding mower accidents involving injury. These operators should evaluate their ability to operate a mower safely enough to protect the operator and others from serious injury.

## Park Safely

- Stop machine on a level surface, not on a slope.
- Disengage PTO.
- Lower attachments to the ground.
- Engage park brake.
- STOP engine.
- Remove key.
- Before you leave the operator's seat, wait for engine and all moving parts to STOP.

## Rotating Blades are Dangerous - Protect Children and Prevent Accidents

PROTECT CHILDREN:



- Never assume that children will remain where you last saw them. Children are attracted to mowing activity, stay

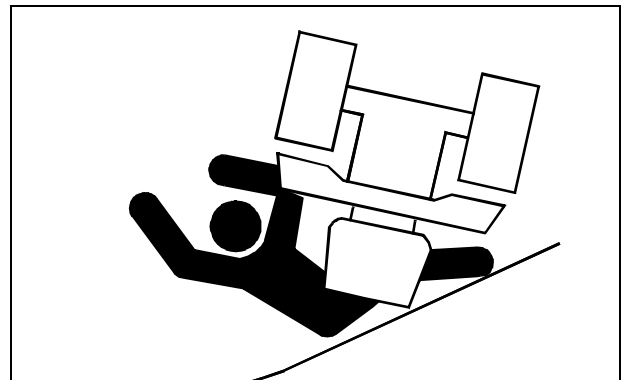
alert to the presence of children.

- Keep children in the house when you are operating the machine.
- Turn machine off if a child enters the mowing area.
- Use extra care when you come to blind corners, shrubs, trees, or other objects that may block your vision.
- DO NOT let children or an untrained person operate the machine.
- DO NOT carry or let children ride on machine or any attachment even with blades off. DO NOT tow children in a cart or trailer.

HELP PREVENT SERIOUS OR FATAL ACCIDENTS:

- Be alert at all times, drive forward carefully. People **ESPECIALLY CHILDREN** can move quickly into the mowing area before you know it.
- Back carefully. Shut off PTO and look behind the machine carefully, **ESPECIALLY FOR CHILDREN**, before you back up.
- DO NOT mow in reverse unless it is absolutely necessary.
- Shut off PTO when you are not mowing.
- DO NOT operate machine if you are under the influence of drugs or alcohol.

## Avoid Tipping



- DO NOT drive where machine could slip or tip.
- Stay alert for holes and other hidden hazards in the terrain.
- Keep away from drop-offs.
- Slow down before you make a sharp turn or operate on a slope.
- When pulling loads or using heavy equipment, use only approved hitches, limit loads to those you can safely control, and use counterweights or wheel weights when required per this manual or your attachment manual.

# SAFETY

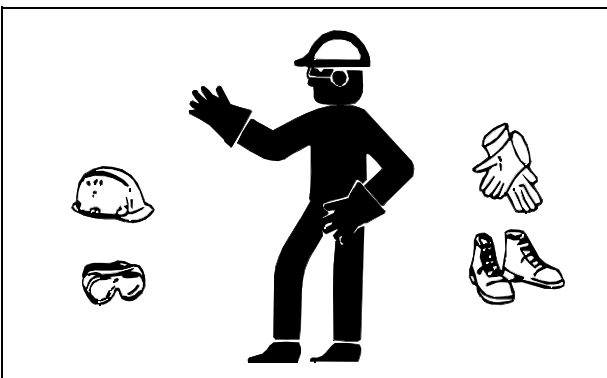
- Drive up and down a hill - not across. Be careful when you change direction on a slope.
- DO NOT stop when going up hill or down hill. If machine stops going up hill, STOP PTO and back down slowly.
- DO NOT mow wet grass. Reduced traction could cause sliding.
- DO NOT try to stabilize the machine by putting your foot on the ground.

## Keep Riders Off



- Only allow the operator on the machine. Keep riders off.
- Riders on the machine or attachment may be struck by foreign objects or thrown off the machine causing serious injury.
- Riders obstruct the operator's view resulting in the machine being operated in an unsafe manner.

## Wear Appropriate Clothing



- Wear close fitting clothing and safety equipment appropriate for the job.
- Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.

## Stay Clear of Rotating Drivelines



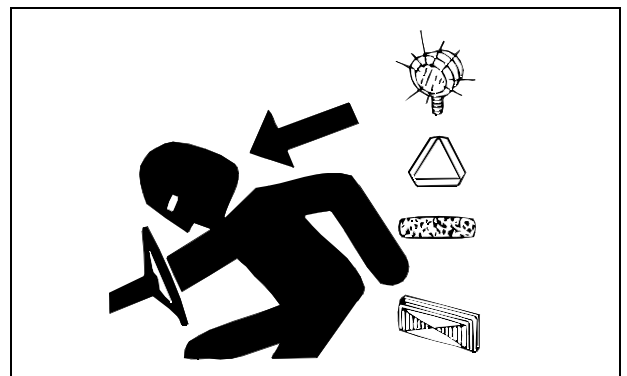
Entanglement in rotating driveline can cause serious injury or death:

- Wear close fitting clothing.
- STOP the engine and be sure PTO driveline is stopped before getting near it.

## Check Wheel Bolts

- A serious accident could occur causing serious injury if wheel bolts are not tight.
- Check wheel bolt tightness often during the first 100 hours of operation.

## Transport Safely



- Use safety lights and devices. Slow moving machines when driven on public roads are hard to see, especially at night. Avoid personal injury or death resulting from a collision with a vehicle.
- Whenever driving on public roads, use flashing warning lights and turn signals according to local regulations. Extra flashing warning lights may need to be installed.

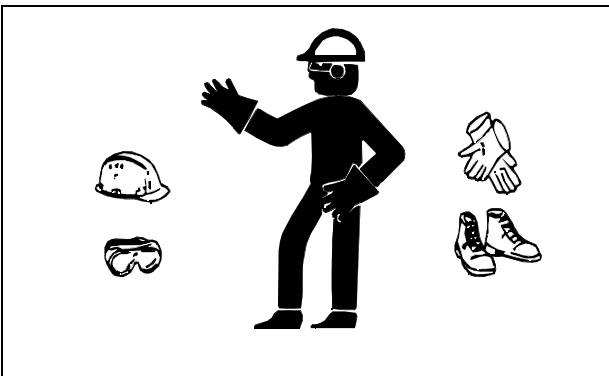
# SAFETY

## Practice Safe Maintenance



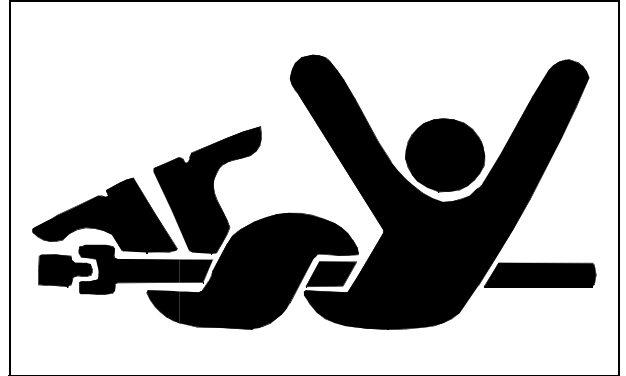
- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.
- To prevent them from getting caught, keep hands, feet, clothing, jewelry, and long hair away from any moving parts.
- Before servicing machine, lower attachments to the ground. Disengage all power and stop the engine. Move hydraulic lift levers back and forth to relieve pressure. Lock park brake and remove the key. Let tractor cool.
- Securely support any machine elements that must be raised for service work.
- Never run engine unless park brake is locked.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.
- Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on tractor.
- Unauthorized modifications to the tractor may impair its function and safety.

## Wear Appropriate Clothing



- Wear close fitting clothing and safety equipment appropriate for the job.
- Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.
- Do not wear radio or music headphones while servicing the machine. Safe service requires your full attention.

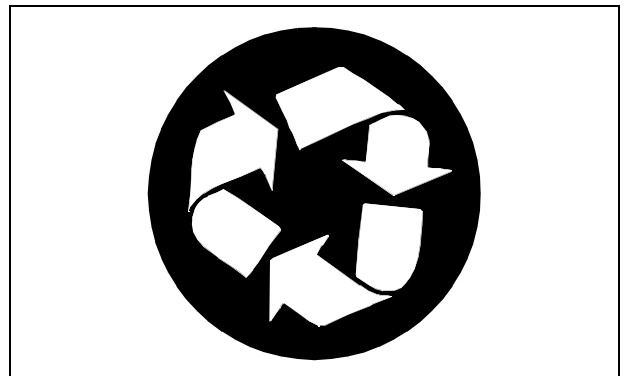
## Stay Clear of Rotating Drivelines



Entanglement in rotating driveline can cause serious injury or death:

- STOP the engine and be sure PTO driveline is stopped before getting near it.

## Handling Waste Product and Chemicals



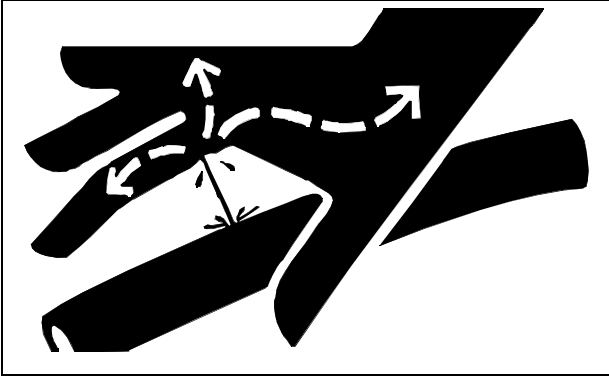
- Waste products, such as, used oil, fuel, coolant, brake fluid, and batteries, can harm the environment and people.
- DO NOT use beverage containers for waste fluids—someone may drink from them.
- See your local Recycling Center or John Deere dealer to learn how to recycle or get rid of waste products.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

# SAFETY

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See your John Deere dealer for the MSDS on chemical products used with your machine.

## Avoid High Pressure Fluids

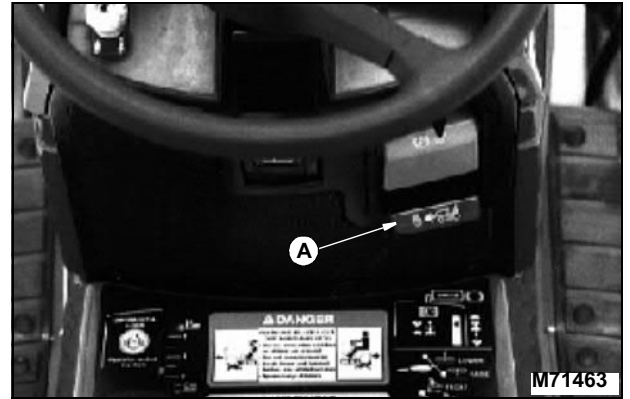


- Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.
- Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections 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.

# OPERATING

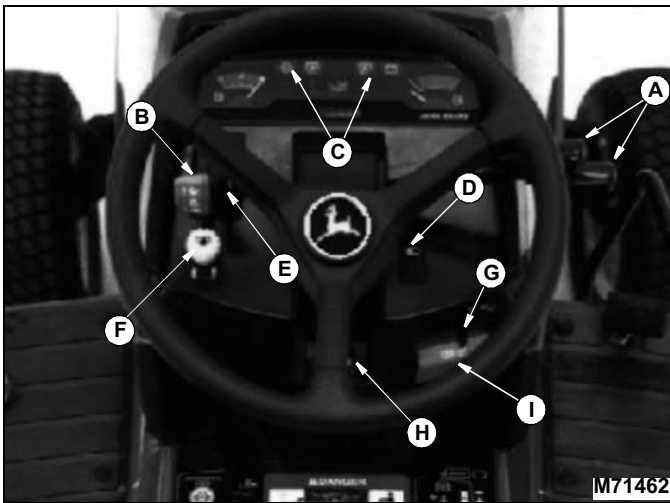
## Daily Operating Checklist

- Test safety systems.
- Check tire pressure.
- Check fuel level.
- Check engine oil level.
- Check transaxle oil level.
- Check coolanat level.
- Check Air Restriction Indicator (if so equipped).
- Clean air intake screens.
- Remove grass and debris from machine.



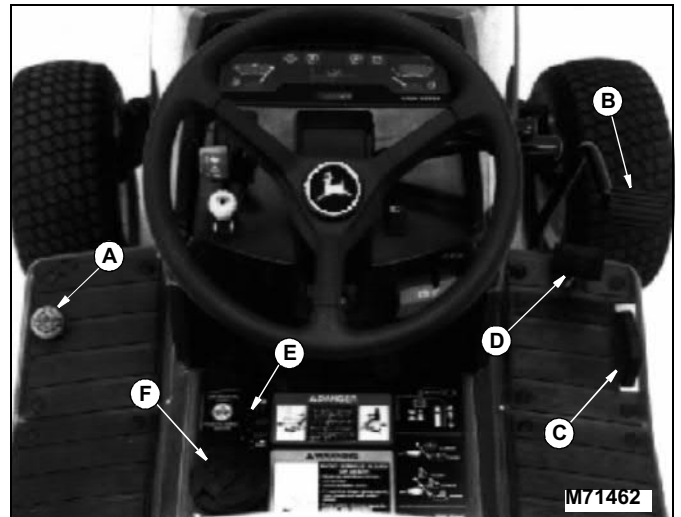
A - Cruise Control Lever

## Dash Controls



- A - Hydraulic Control Levers
- B - Throttle Lever
- C - Indicator Lights
- D - Light Switch
- E - Choke Lever (425)
- F - PTO Switch
- G - Key
- H - Tilt Steering Wheel Button
- I - Park Brake Lever

## Foot/Platform Controls

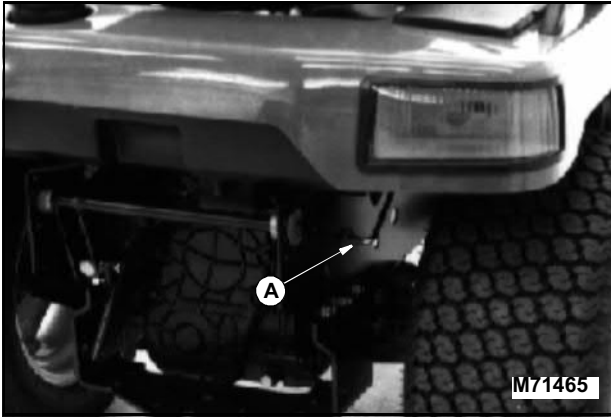


- A - Differential Lock Pedal
- B - Brake Pedal
- C - Reverse Travel Pedal
- D - Forward Travel Pedal
- E - Mower Height Indicator
- F - Mower Height Crank

# OPERATING

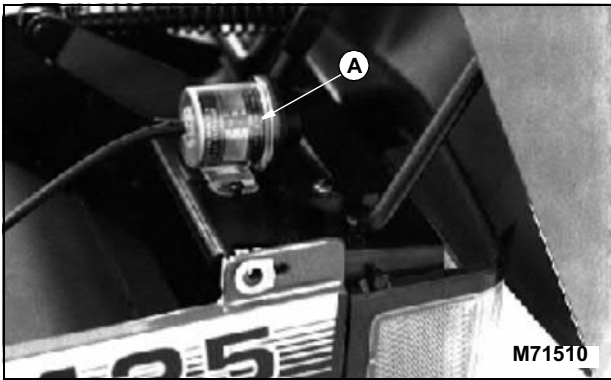
## Miscellaneous Controls

### Free Wheeling Lever



A - Free-Wheeling Lever

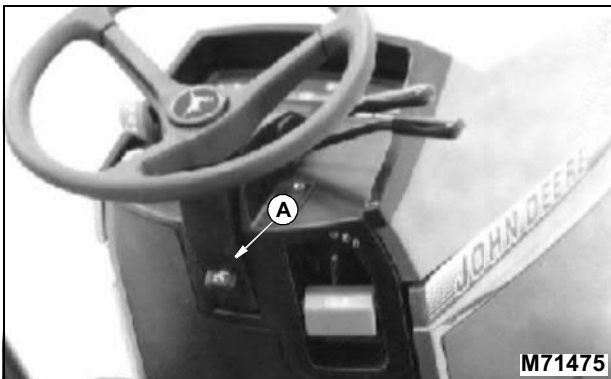
### Air Restriction Indicator



A - Air Restriction Indicator (Optional)

## Adjusting Steering Wheel

**NOTE:** Steering wheel has four tilt positions.



1. Push in button (A) and push or pull wheel to a comfortable operating position.

2. Release button.

**NOTE:** Before operating, be sure steering wheel is locked in position.

## Adjusting Seat (425)

### Adjust Forward / Rearward

**NOTE:** This tractor is equipped with a fourteen position slide rail seat. Be sure seat is locked in position before operating.

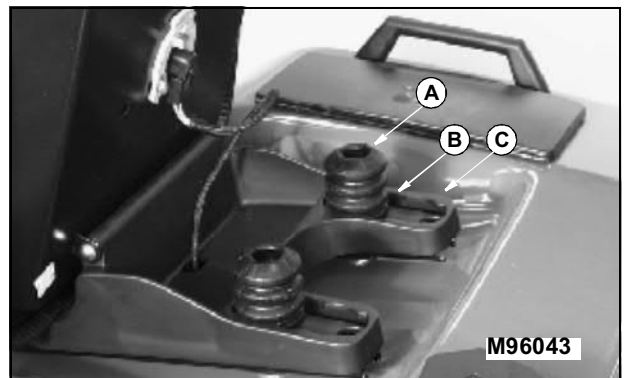


1. Push lever (A) to the left.
2. Slide seat forward or backward to desired position.
3. Release lever.

### Adjust Seat Suspension

**NOTE:** Seat suspension can be adjusted to better match the weight of the operator.

1. Lift operators seat.
2. Suspension coils can be moved to three different settings:



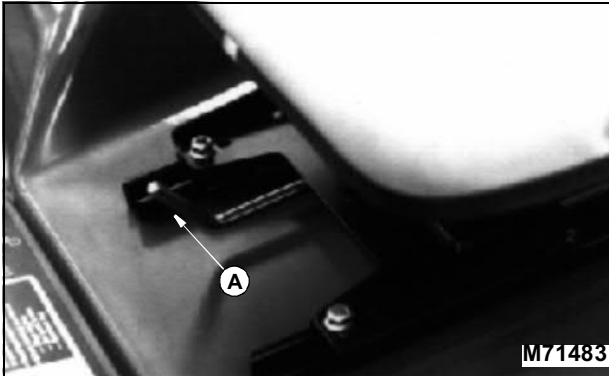
- Soft Ride (A)
- Average Ride (B)
- Firm Ride (C)

# OPERATING

3. Make sure suspension coils are in the same ride setting for each side.

## Adjusting Seat (445)

**NOTE:** This tractor is equipped with a fourteen position slide rail seat. Be sure seat is locked in position before operating.



1. Push lever (A) to the left.
2. Slide seat forward or backward to desired position.
3. Release lever.

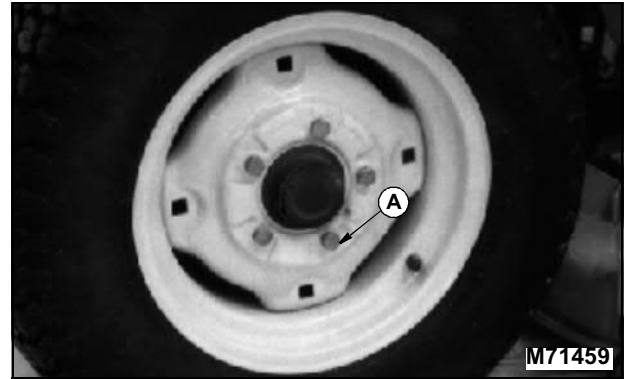
## Rear Wheel Spacing (Two Wheel Steer Models With 23 x 10.50-12 Tires)

**IMPORTANT:** Avoid damage! On 26 x 12.00-12 tire option, wheels should always be in the wide position.



**CAUTION:** Avoid injury! Do not work under a raised tractor unless it is safely supported. A tractor that slips and falls off a jack could cause serious injury or death.

1. Park tractor on level surface. STOP engine. LOCK park brake. Put blocks in front and back of front wheels.



2. Loosen five rear wheel bolts (A). Lift rear wheels off the ground with floor jack or hoist.
3. Remove wheel bolts.
4. Install wheels as follows:
  - Turf tires: Install wheel on same side of tractor with valve stem inside.



- Bar tires: Install each wheel on opposite side of tractor. Bars on tires must point forward.
- Tighten wheel bolts to 88 N•m (65 lb-ft).
- Lower rear wheels to the ground. Remove blocks from front wheels.



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# OPERATING

## Testing Safety Systems



**CAUTION: Avoid injury! Engine exhaust fumes can cause sickness or death.**

- If it is necessary to run an engine in an enclosed area, remove the exhaust fumes for the area with an exhaust pipe extension.
- If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

Use the following checkout procedure to check for normal operation of tractor.

If there is a malfunction during one of these procedures, DO NOT operate tractor. (See your John Deere dealer for service.)

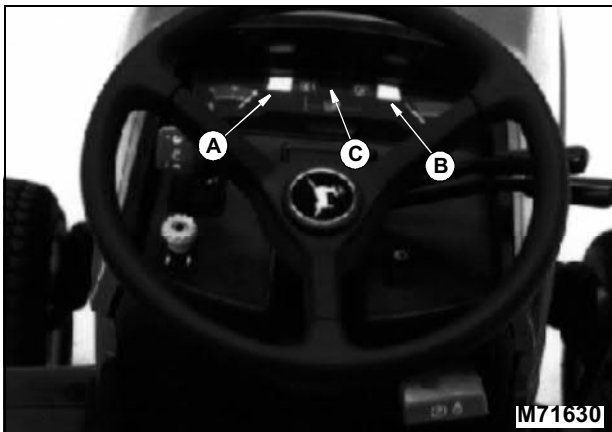
**IMPORTANT: Avoid damage! Tests 1, 2 and 3 are performed WITHOUT the engine running.**

Perform these tests in a clear open area. Keep bystanders away.

### Test 1

Check operation of indicator lights:

- Turn key to RUN position.



- LOOK: Indicator lights (A) and (B) must light.
- LOOK: On Model 445, indicator light (C) will come on and go out in two to three seconds.
- If one indicator does not light, see **Replacing Indicator Light Bulb** in Service-Electrical section.
- If new indicator bulb does not light or no indicators work, see your John Deere dealer.

### Test 2

**IMPORTANT: Avoid damage! If test fails, the engine may start and tractor may move.**

Test brake switch:

1. Unlock park brake and release brake pedal.
2. Turn key to START position.
3. Engine must not crank.

### Test 3

**IMPORTANT: Avoid damage! If test fails, the engine may start and PTO may engage.**

Test PTO switch:

1. Depress brake pedal, or lock park brake.
2. Put PTO switch lever in ON position.
3. Turn key to START position.
4. Engine must not crank.

### Test 4

Test seat switch:

1. First part of test:
  - Start engine. Run engine at MAXIMUM (🐄) engine speed. Unlock park brake and release brake pedal.
  - Put PTO switch lever in ON position.
  - Raise up off seat. DO NOT get off tractor.
  - Engine should begin to die. PTO should immediately SHUT OFF and mower blades should STOP.
2. Second part of test
  - DISENGAGE PTO.
  - Start engine.
  - UNLOCK brake.
  - Raise up off seat. DO NOT get off tractor.
  - Engine should STOP.
3. Third part of test:
  - DISENGAGE PTO.
  - Start engine.
  - LOCK park brake
  - Raise up off seat. DO NOT get off tractor.
  - Engine should continue to run.

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