


JOHN DEERE
WORLDWIDE COMMERCIAL & CONSUMER
EQUIPMENT DIVISION

Lawn and Garden Tractor
455

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

OMM144040 E0

North American Version
Litho in U.S.A.

INTRODUCTION

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.

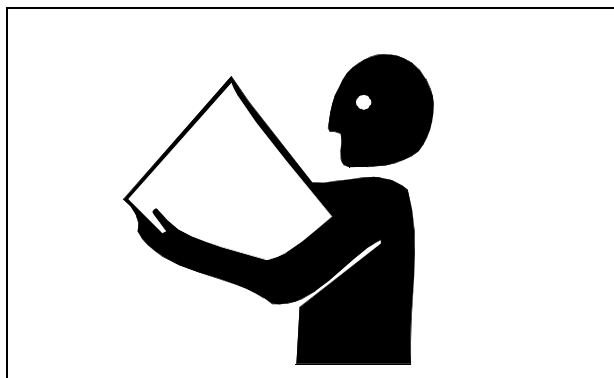
Section in your operator's manual are placed in a specific order to help you understand all the safety messages and learn the controls so you can operate this machine safely. YOU can also use this manual to answer any specific operating or servicing questions. A convenient index located at the end of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

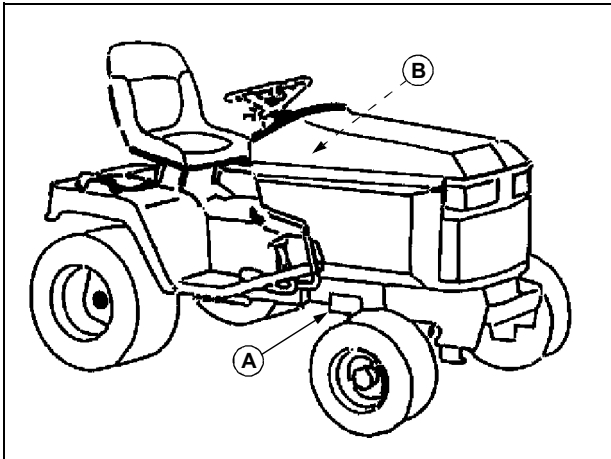
Record Identification Numbers

Lawn and Garden Tractors

455 PIN (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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Hello dear friend!

Thank you very much for reading.

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The full manual is available for immediate download.

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John Deere Worldwide Commercial and
Consumer Equipment Division
Horicon, WI

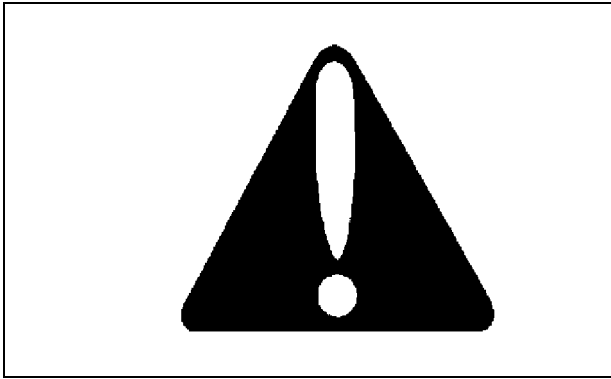
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OMM144040 E0 - English

SAFETY

Understanding The Machine Safety Labels

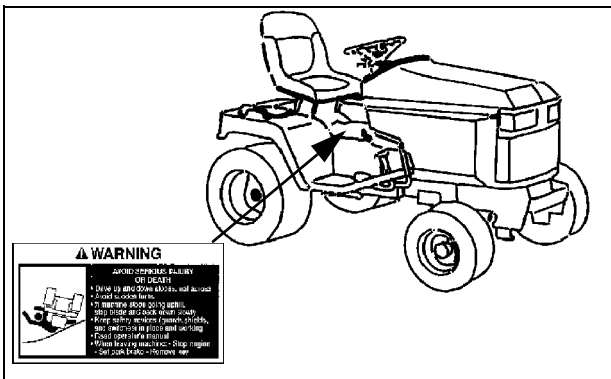


The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words **DANGER**, **WARNING**, and **CAUTION** are used with this safety-alert symbol, (▲). **DANGER** identifies the most serious hazards.

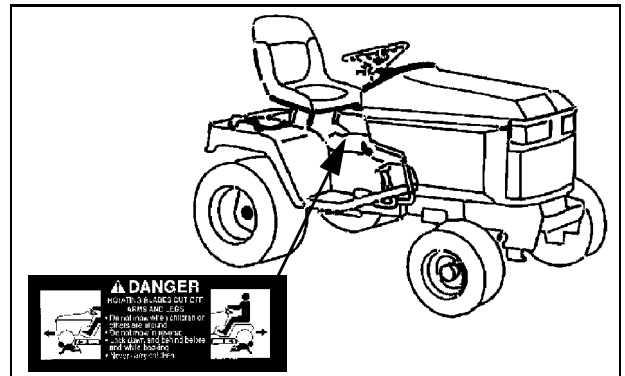
The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word, **CAUTION**, and the safety-alert symbol, (▲).

WARNING: AVOID SERIOUS INJURY OR DEATH



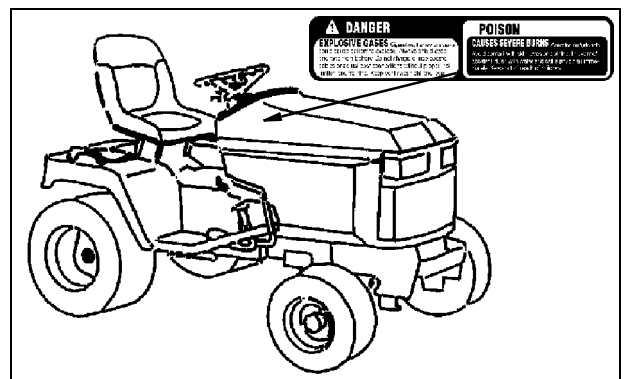
- Drive up and down slopes, not across.
- Avoid sudden turns.
- If machine stops going uphill, stop blade and back down slowly.
- Keep safety devices (guards, shields, and switches) in place and working.
- Read Operator's Manual.
- When leaving machine: Stop engine, Set park brake, Remove key.

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



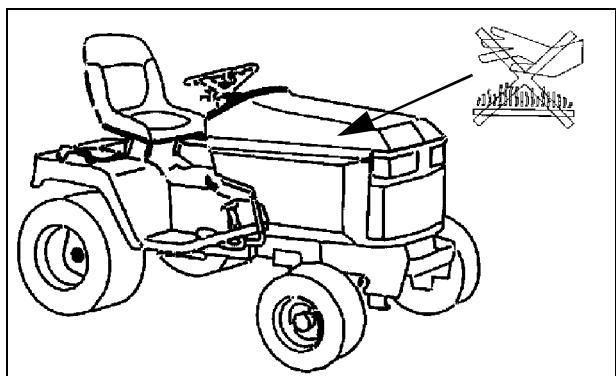
Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training. Keep vent caps tight and level.

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



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

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).

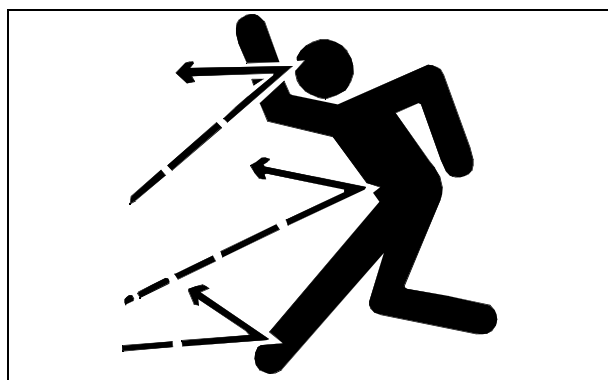
The emissions warranty applies only to those engines marketed by John Deere that have been certified by the EPA and/or CARB; and used in the United States and Canada in off-road mobile equipment.

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.

SAFETY

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.
- 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

SAFETY

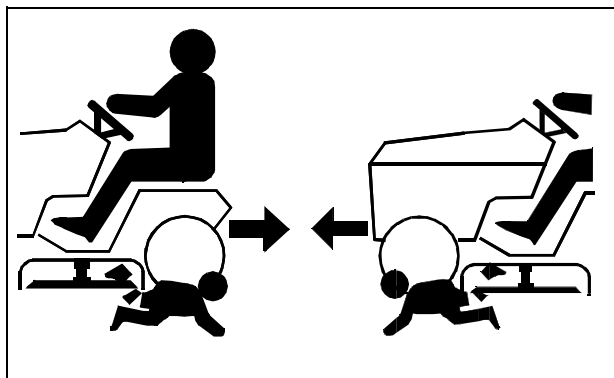
evaluate their ability to operate a mower safely enough to protect the operator and others from injury.

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.

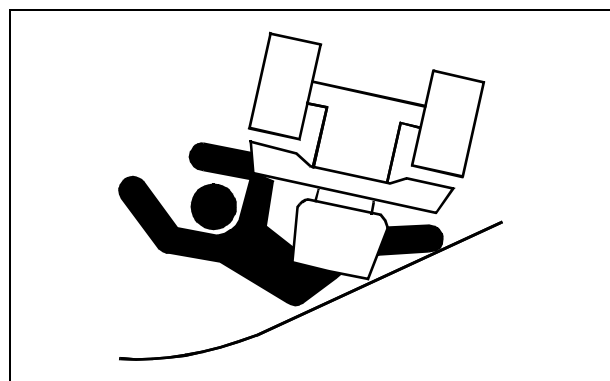
Help Prevent Serious Or Fatal Accidents:

- 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.
- 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.

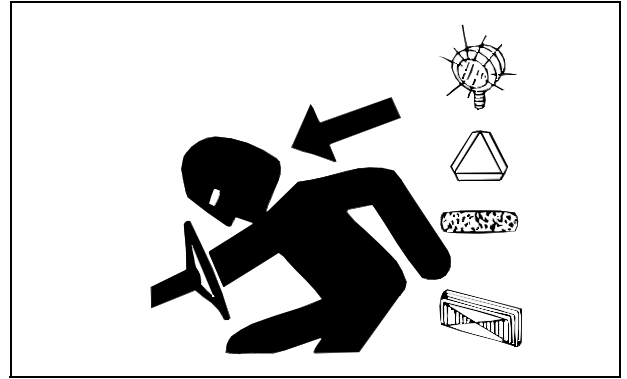
SAFETY

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.

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.

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.

Practice Safe Maintenance

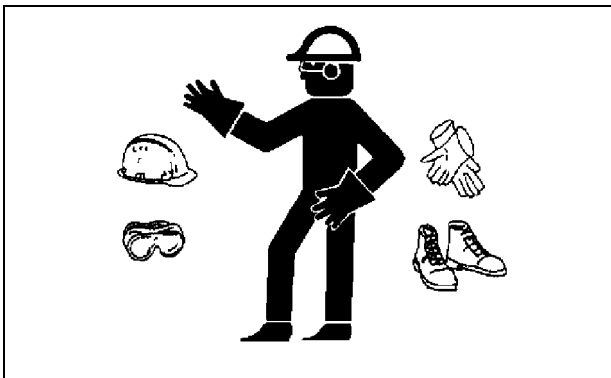


- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.
- To prevent them from getting caught, keep hands, feet, clothing, jewelry, and long 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.

SAFETY

- 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.
- Always wear safety goggles or safety glasses with side shields when operating the mower.
- 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.

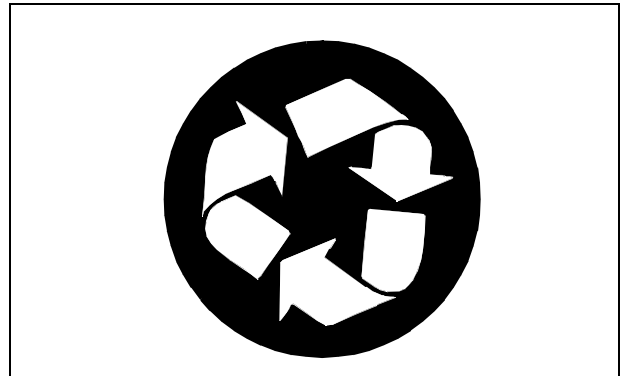
Stay Clear of Rotating Drivelines



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

Tire Safety



Explosive separation of a tire and rim parts can cause serious injury or death:

- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- When inflating tires, use a clip-on chuck and extension

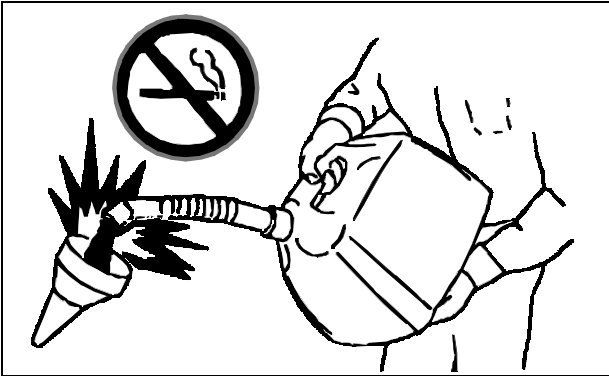
SAFETY

hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.

- Check tires for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.

Handling Fuel Safely

Fuel and fuel vapors are highly flammable:



- Do not refuel machine while you smoke, when machine is near an open flame or sparks, or when engine is running. Stop engine and allow to cool before filling.
- Never remove gas cap or add fuel with engine running.
- Never fill fuel tank or drain fuel from a machine in an enclosed area. Fill fuel tank outdoors.
- Prevent fires: clean oil, grease and dirt from machine. Clean up spilled fuel immediately.
- Do not store machine with fuel in tank in a building where fumes may reach an open flame or spark.
- Prevent fire and explosion caused by static electric discharge. Use only non-metal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM). If using a funnel, make sure it is plastic and has no screen or filter.
- Static electric discharge can ignite gasoline vapors in an ungrounded fuel container. Remove the fuel container from the bed of a vehicle or the trunk of a car and place on the ground away from the vehicle before filling. Keep nozzle in contact with container opening while filling.



- When practical, remove equipment from trailers or truck beds and refuel them on the ground. If this is not possible, use a portable, plastic fuel container to refuel equipment on a truck bed or trailer.
- Do not use methanol gasoline. methanol is harmful to the environment and to your health.

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

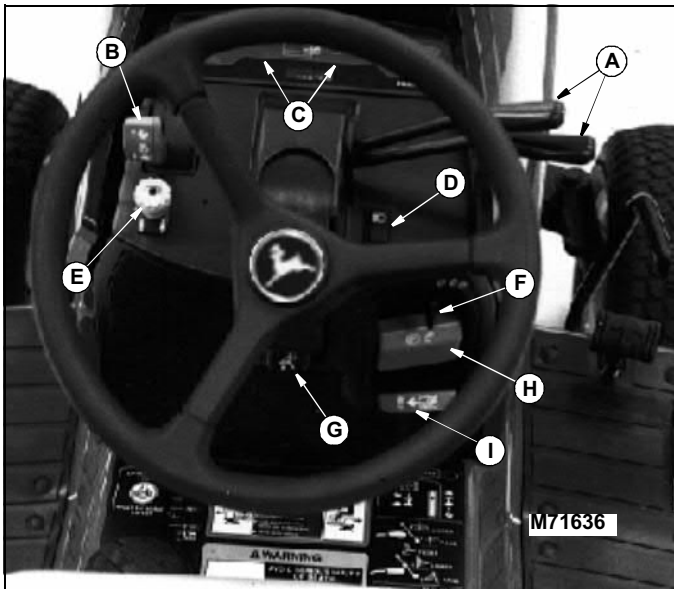
DAILY OPERATING CHECKLIST

- Test safety systems.
- Check tire pressure.
- Check fuel level.
- Check engine oil level.
- Check transaxle oil level.
- Check coolant level.
- Check air restriction indicator. (Do Not service air filter until indicator reaches red line.)
- Clean air intake screens.
- Remove grass and debris from machine.

Avoid Damage to Plastic and Painted Surfaces

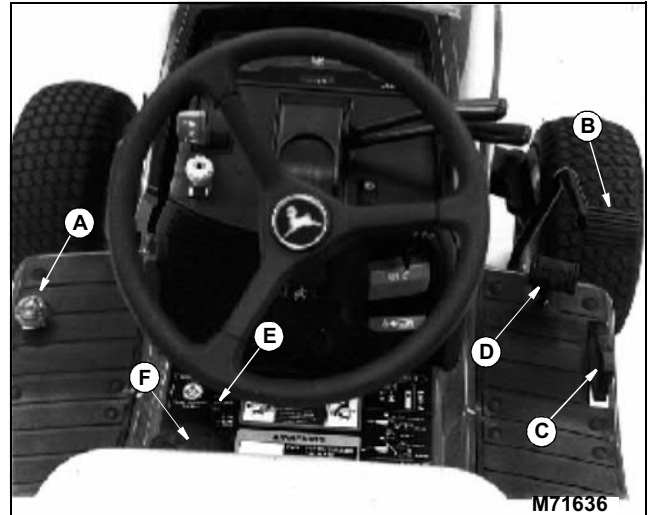
- Do not wipe plastic parts unless rinsed first.
- Insect repellent spray may damage plastic and painted surfaces. Do not spray insect repellent near machine.
- Be careful not to spill fuel on machine. Fuel may damage surface. Wipe up spilled fuel immediately.

Operator Station Controls



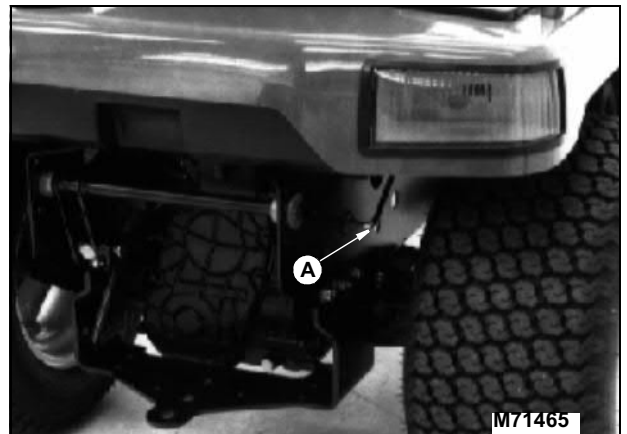
- A - Hydraulic Control Levers**
- B - Throttle Lever**
- C - Indicator Lights**
- D - Light Switch**
- E - PTO Switch**

- F - Key**
- G - Tilt Steering Wheel Button**
- H - Park Brake Lever**
- I - Cruise Control Lever**



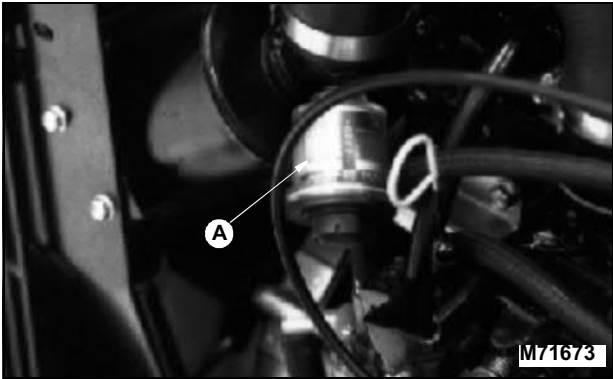
- A - Differential Lock Pedal**
- B - Brake Pedal**
- C - Reverse Travel Pedal**
- D - Forward Travel Pedal**
- E - Mower Height Indicator**
- F - Mower Height Crank**

Miscellaneous Controls



- A - Free Wheeling Lever**

OPERATING



A - Air Restriction Indicator

Adjusting Steering Wheel

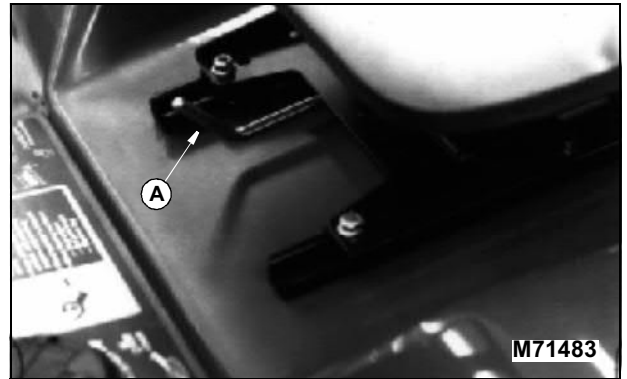
NOTE: Steering wheel has four tilt positions.



1. Push in button (A).
2. Push or pull wheel to a comfortable operating position.
3. Release button.

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

Adjusting Seat



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

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

Changing Rear Wheel Spacing (Two Wheel Steer Models with Optional 23 x 10.50-12 Tires)

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

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



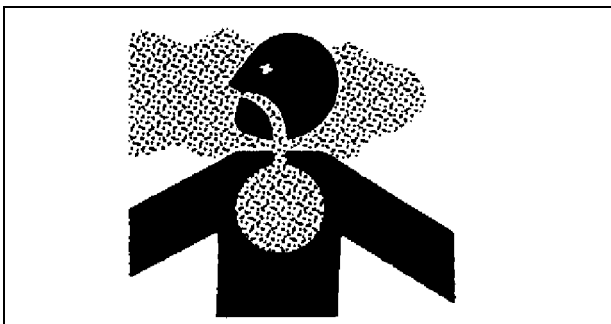
2. Loosen five rear wheel bolts (A). Lift rear wheels off the ground with floor jack or hoist.
3. Remove wheel bolts.
4. Install wheels as follows:
 - Turf tires: Install wheel on same side of tractor with valve stem inside.

OPERATING



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

Testing Safety Systems



CAUTION: Avoid injury! Engine exhaust fumes contain carbon monoxide and can cause serious illness or death.

Move the vehicle to an outside area before running the engine.

DO NOT run an engine in an enclosed area without adequate ventilation.

- Connect a pipe extension to the engine exhaust pipe to direct the exhaust fumes out of the area.
- Allow fresh outside air into the work area to clear the exhaust fumes out.

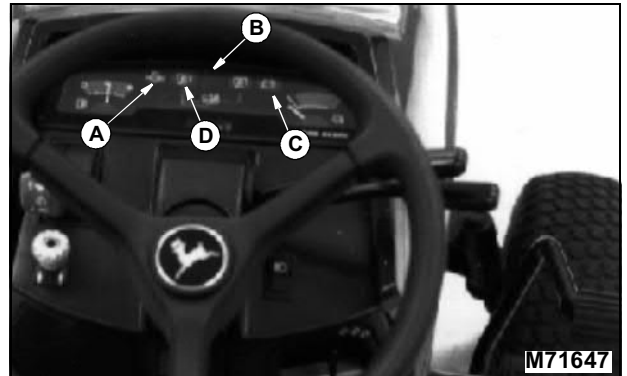
Use the following checkout procedure to check for normal operation of tractor.

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

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

Testing Operation Of Indicator Lights

1. Turn key to run position.



2. Verify that indicator lights (A) and (C) come on.
3. Verify that indicator light (B) comes on and goes out within approximately 8 seconds. If the engine has been run and then cooled, the time may be less. If the engine has been run and is hot, the light will not come on.
4. Verify that the mid PTO light (D) comes on when the engine is off, operator is on seat, park brake is off, and PTO turned on.

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.

Testing Brake Switch

1. Unlock park brake and release brake pedal.
2. Try to start engine.

Result: Engine must not start. If engine starts, there is a problem with your safety interlock circuit.

Testing PTO Switch

1. Depress brake pedal, or lock park brake.
2. Pull PTO switch up to engage.
3. Try to start engine.

OPERATING

Result: Engine must not start. If engine starts, there is a problem with your safety interlock circuit.

Testing Seat Switch

First Test:

1. Start engine.
2. Move throttle lever up to maximum (🐄) engine speed.
3. Unlock park brake and release brake pedal.
4. Engage PTO.
5. Raise up off seat. Do not get off tractor.

Result: Engine should begin to stop and mower blades should stop. If engine does not begin to stop and mower blades do not stop, there is a problem with your safety interlock circuit.

Second Test:

1. Disengage PTO.
2. Start engine.
3. Unlock park brake and release brake pedal.
4. Raise up off seat. Do not get off tractor.

Result: Engine should begin to stop. If engine does not begin to stop, there is a problem with your safety interlock circuit.

Third part of test:

1. Disengage PTO.
2. Start engine.
3. Lock park brake
4. Raise up off seat. Do not get off tractor.

Result: Engine should continue to run. If engine stops, there is a problem with your safety interlock circuit.

Testing Mower Blade Stop Time

NOTE: This test should be performed once a year or every 100 hours.

Perform this test while sitting on the tractor.

1. Start engine.
2. Engage PTO.



3. Watch left-hand side mower spindle (A). Disengage PTO, mower spindle should stop turning within 5 seconds.

Result: If spindle does not stop within 5 seconds, the PTO brake needs servicing. (See your John Deere dealer for service.)

Testing Reverse Implement Option



CAUTION: Avoid injury!

Before moving rearward, make sure area is clear of bystanders, especially children.

1. Start engine.
2. Engage PTO to start attachment.
3. Look behind the vehicle to be sure there are no bystanders.
4. Begin reverse travel by depressing reverse foot pedal.

Result: Attachment should stop operation. If attachment continues to operate while tractor travels in reverse, do not continue to operate attachment. See your John Deere dealer for service.

Using Fuel Shut-Off Valve

1. Raise hood.
2. Remove left-hand side panel.



Suggest:

If the above button click is invalid.

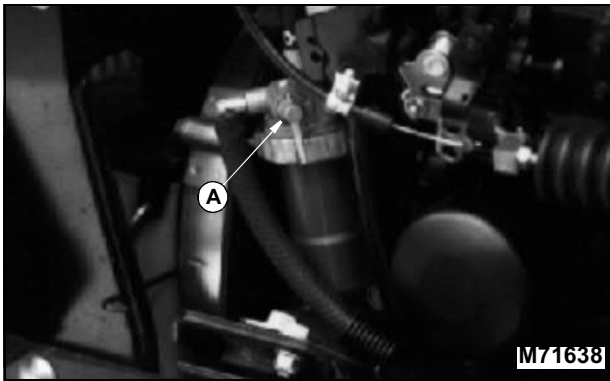
Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

OPERATING



Picture Note: Fuel Shut-off valve shown in open position

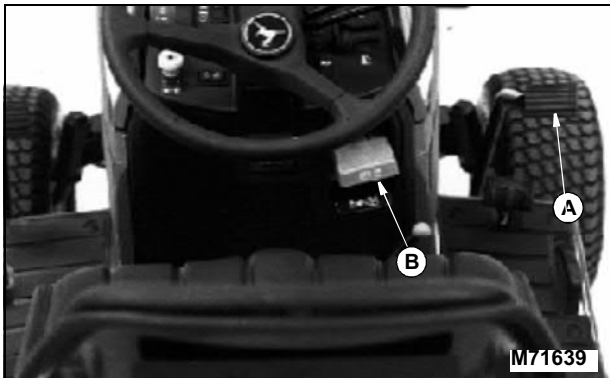
3. Turn lever (A) counterclockwise to open and clockwise to close.

Using the Park Brake

Locking Park Brake



CAUTION: Avoid injury! Always lock park brake before getting off tractor or leaving tractor unattended.



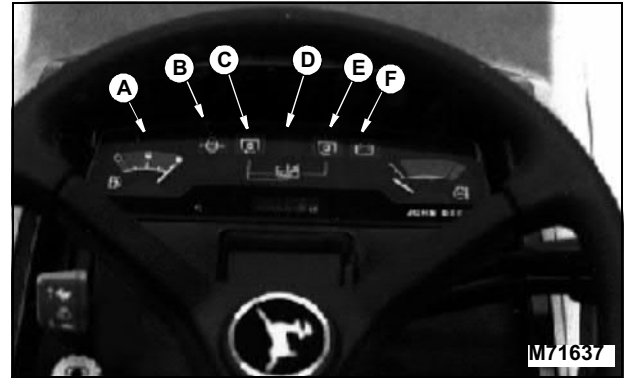
1. Push down on brake pedal (A) and hold pedal all the way down.
2. Pull park brake lever (B) up to lock park brake.
3. Release pedal and then park brake lever. Pedal should stay down and park brake lever should stay up in locked position.

Unlocking Park Brake

1. Push down on brake pedal and hold pedal all the way down.
2. Push park brake lever down.
3. Release pedal. Pedal should come up to operating

position.

Indicator Lights and Gauges



A - Fuel Gauge - indicates fuel level.

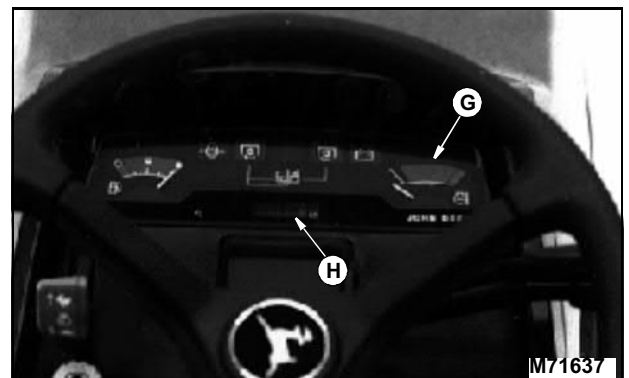
B - Oil Pressure Indicator Light - will come on when engine oil pressure is too low. If indicator comes on during operation, stop engine and perform appropriate service. This is an indication that the engine is low on oil.

C and E - PTO Indicator Lights - will come on when mid/front or rear PTO is engaged.

D - Engine Preheat/Overheat Indicator Light - will come on for up to 8 seconds when starting the engine. If the engine has been run and then cooled, the time may be less. If engine has been run and is hot, the light will not come on.

This light will also come on when the needle on the temperature gauge is in the red range.

F - Battery Discharge Indicator Light - will come on when output is too low. If indicator comes on during operation, stop engine and perform appropriate service.



G - Coolant Temperature Gauge - indicates temperature of the cooling system. If the needle on the gauge reaches the red range, the engine is overheating. If the PTO is engaged, it will automatically shut off.

If engine is overheated, push down PTO knob, let engine cool at idle speed (⚙️) until needle returns to the green

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