

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

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**Walk-Behind Rotary Mower**  
**JS20, JS30, JS40**

OMGX22621 L6

**OPERATOR'S MANUAL**



**JOHN DEERE**

North American Version  
Litho in U.S.A.

# INTRODUCTION

**⚠ 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

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## Introduction

### Thank You for Purchasing a John Deere Product

We appreciate having you as a customer and wish you many years of safe and satisfied use of your machine.

### Using Your Operator 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.

This manual and safety signs on your machine may also be available in other languages (see your authorized dealer to order).

Sections 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.

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 (-----), 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 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 that 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 or service of the machine.

All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

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# PRODUCT IDENTIFICATION

## Product Identification

### Record Identification Numbers

JS20 PIN (100001-)

JS30 PIN (100001-)

JS40 PIN (100001-)

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

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:

ENGINE SERIAL NUMBER:

### Register Your Product and Warranty Online

To register your product through the Internet, simply go to [www.JohnDeereWarrantyRegistration.com](http://www.JohnDeereWarrantyRegistration.com). Completing the information, either online or with the product warranty card, will ensure the customer that their product receives all post sales service and important product information.

## Safety Labels



### 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.

## Danger



GC00586

**Picture Note:** Located on rear cover and on bagger chute.

- To avoid injury, do not operate mower without protective mulch guard, side discharge chute, or grass bagging system fastened in place.

## Warning - Danger



gx22572

**Picture Note:** Located on left side of deck.

### Warning

#### Avoid Serious Injury or Death

- Read operator's manual.
- Keep safety devices (guards, shields, switches, etc.) in place and working.
- Go across slopes, not up or down.
- Remove objects that could be thrown by blade.
- Do not mow when children or others are around.
- Look down and behind before and while moving backwards.
- Wait at least 2 minutes before refueling.

### Danger

#### Amputation And Thrown Object Hazard

- Keep hands and feet away from deck.

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# SAFETY LABELS

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- Do not operate mower unless discharge chute or entire grass catcher is in its proper place.

## 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.

Agency	Category	Hours
EPA	C	125
EPA	B	250
EPA	A	500
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.

# SAFETY

## Safety

### Operating Safely

- This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.
- Read, understand and follow all instructions on the machine and in the manual before starting. Be thoroughly familiar with the controls and the proper use of the machine before starting.
- Do not put hands or feet near or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate this machine. Local regulations may restrict the age of the operator.
- Clear the area of objects such as rocks, toys, wire, and similar items which could be thrown by the blade. Stay behind the handle when the engine is running.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Do not operate the mower barefooted or while wearing sandals. Always wear substantial footwear.
- Do not pull machine backward unless absolutely necessary. Always look down and behind before and while moving backward.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade when crossing gravel surfaces.
- Do not operate machine without the entire grasscatcher, discharge guard, rear guard, or other safety protective devices in place and working. Never operate with the discharge deflector raised, removed, or altered, unless using a grasscatcher.
- Never leave a running machine unattended.
- Stop the engine and wait until the blade comes to complete stop before cleaning the machine, removing grasscatcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the mower while under the influence of alcohol or drugs.
- Never operate mower in wet grass. Always be sure of your footing. Walk; never run.
- Disengage the drive system, if so equipped, before starting the engine.
- If the machine should start to vibrate abnormally, stop the engine and check for the cause immediately. Vibration is generally a warning of trouble.
- Always wear safety goggles or safety glasses with side shields when operating mower.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.
- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Make any necessary adjustments before you operate.
- Before using, always visually inspect to see that the blades, blade bolts and the mower assembly are not worn and damaged. Replace worn and damaged blades as needed.
- Make sure spark plug, muffler, fuel cap and air cleaner are in place before starting the engine.

- Keep safety labels visible when installing accessories and attachments.

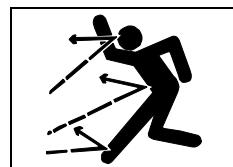
### Parking Safely

1. Stop mower on a level surface, not on a slope.
2. Disengage mower blades and wheel drive.
3. Stop the engine.
4. Wait for engine and all moving parts to stop.
5. Remove the spark plug wire before servicing the mower.

### Using a Spark Arrestor

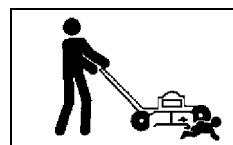
The engine in this machine is not equipped with a spark arrestor muffler. It is a violation of California Public Resource Code Section 4442 to use or operate this engine on or near any forest-covered, brush-covered or grass-covered land unless the exhaust system is equipped with a spark arrestor meeting any applicable local or state laws. Other states or federal areas may have similar laws.

A spark arrestor for your machine may be available from your authorized dealer. An installed spark arrestor must be maintained in good working order by the operator.



### Checking Mowing Area

- Clear mowing area of objects that might be thrown. Keep people and pets out of mowing area.
- Low-hanging branches and similar obstacles can injure the operator or interfere with mowing operation. Before mowing, identify potential obstacles such as low-hanging branches, and trim or remove those obstacles.
- Study mowing area. Set up a safe mowing pattern. Do not mow where traction or stability is doubtful.



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

#### Protect Children:

- Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to lawn-mowing machines and mowing activity. Stay alert to the presence of children. Never assume that children will remain where you last saw them.
- Keep children indoors, out of the mowing area, and in the watchful eye of a responsible adult, other than the operator, when a mower is being operated.
- Be alert and turn mower off if a child enters the work area. They don't understand the dangers of rotating blades or the fact that the operator is unaware of their presence.
- Never allow a child or an untrained person to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

### Operating Safely on Slopes

- Slopes are a major factor related to slip and fall accidents which can result in severe injury. Operation on all slopes requires extra caution. If you feel uneasy on a slope, do not mow it.
- Mow across the face of slopes, never up and down. Use extreme caution when changing direction on slopes.
- Watch for holes, ruts, bumps, rocks or other hidden objects. Uneven

# SAFETY

terrain could cause a slip and fall accident. Tall grass can hide obstacles.

- Do not mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.
- Do not mow near drop offs, ditches, or embankments. The operator could lose footing or balance.
- Use extra care with grasscatchers. These can change the stability of the machine. Do not use grasscatcher on steep slopes.



## Wear Appropriate Clothing

- Always wear eye protection when operating the machine.
- Wear close fitting clothing and safety equipment appropriate for the job.

- While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- Wear a suitable protective device such as earplugs. Loud noise can cause impairment or loss of hearing.



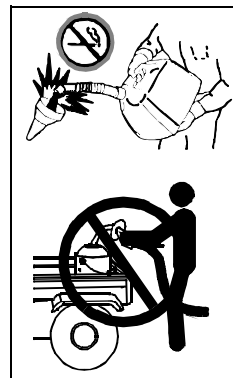
## Practice Safe Maintenance

- Only qualified, trained adults should service this machine. Understand service procedure before doing work.

- Never operate machine in a closed area where dangerous carbon monoxide fumes can collect.
- Keep all nuts and bolts tight, especially blade attachment bolts, to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris. Allow the machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running. Wait for all movement to stop before adjusting, cleaning or repairing. Disconnect the spark plug wire, and ground against the engine to prevent accidental starting.
- Check grasscatcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary. Grasscatcher components are subject to wear, damage, and deterioration which could expose moving parts or allow objects to be thrown.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra care when servicing them. Only replace blades. Never straighten or weld them.
- Do not change the governor setting or overspeed the engine.
- Maintain or replace safety and instruction labels, as necessary.
- Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.
- Never attempt to make wheel height adjustments while the engine is running.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts.
- Do not strike the flywheel with a hammer or hard object because the flywheel may later shatter during operation.

## Prevent Fires

- Remove grass and debris from engine compartment and muffler area, before and after operating machine, especially after mowing or mulching in dry conditions.
- Empty the grasscatcher completely before storing.
- Always shut off fuel when storing or transporting machine, if the machine has a fuel shutoff.
- Do not store machine near an open flame or source of ignition, such as a water heater or furnace.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.



## Handling Fuel Safely

**To avoid personal injury or property damage, use extreme care in handling fuel. Fuel is extremely flammable and fuel vapors are explosive:**

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container. 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.
- Never remove the fuel tank cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never add fuel to or drain fuel from the machine indoors. Move machine outdoors and provide adequate ventilation.
- Clean up spilled fuel immediately. If fuel is spilled on clothing, change clothing immediately. If fuel is spilled near machine, do not attempt to start the engine but move the machine away from the area of spillage. Avoid creating any source of ignition until fuel vapors have dissipated.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliance.
- Prevent fire and explosion caused by static electric discharge. Static electric discharge can ignite fuel vapors in an ungrounded fuel container.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before fueling.
- Remove fuel-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a fuel dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until the fueling is complete. Do not use a nozzle lock-open device.
- Never overfill fuel tank. Replace fuel tank cap and tighten securely.
- Replace all fuel container caps securely after use.
- For gasoline engines, do not use gas with methanol. Methanol is harmful to your health and to the environment.

## 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.

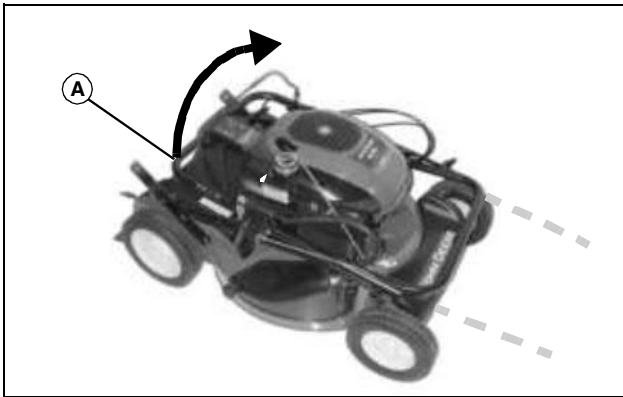
# ASSEMBLY

- See your local Recycling Center or authorized 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. The seller of the chemical products used with your machine is responsible for providing the MSDS for that product.

## Assembly

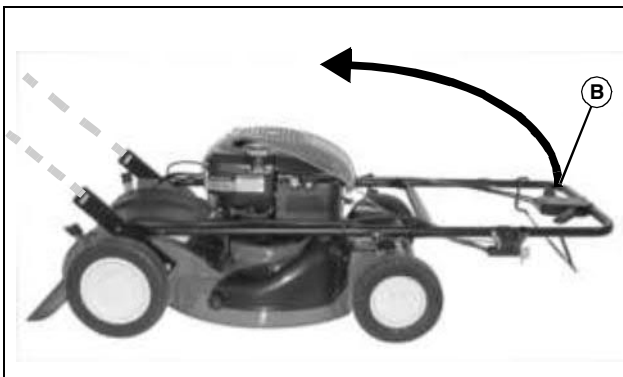
### Prepare Handle Assembly

1. Remove mower from shipping carton. Mower shown as removed from shipping carton.



MX22996

2. Unfold upper handle (A) toward front of machine until upper handle aligns with and fits into lower handle. Securely tighten upper handle knobs on both sides.



MX22997

3. Lift handle assembly (B) up and toward back of machine.

**NOTE: Carriage bolts, lock washers and knobs may already be installed in brackets. Simply remove and install.**

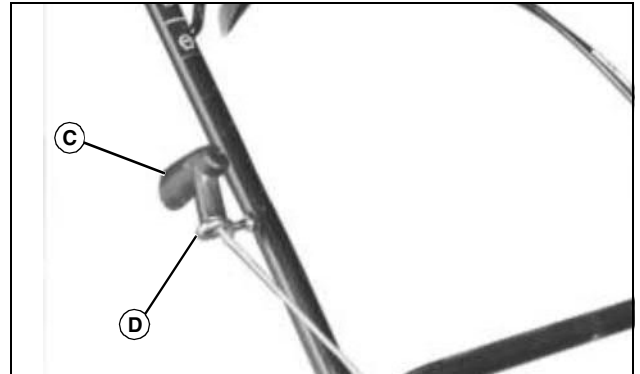
4. Align holes in lower handle with one of three height adjustment holes in mounting brackets. Insert one carriage bolt into desired hole in each bracket, out through lower handle, and secure with lock washer and knob, tightening securely.



**CAUTION: Avoid injury! Blades are sharp. Always wear gloves when handling blades or working near blades.**

**IMPORTANT: Avoid damage! Do not tip machine with carburetor or spark plug down. Oil from crankcase will saturate the air filter and cause the engine to be hard to start or not start at all. If filter contamination does occur, the air filter will have to be replaced.**

5. Tip mower back against the upper handle to gain access to cutting blade. Remove foam shipping block from cutting blade.



MX16753a

6. While squeezing blade control down against upper handle, slowly pull recoil rope handle (C) up to rope guide (D) located on right side of upper handle as shown, and hook rope through guide.

### Charge and Connect Battery

**NOTE: For electric start models only.**



**CAUTION: Avoid injury! The battery produces a flammable and explosive gas. The battery may explode:**

- Do not smoke or have open flame near battery.
- Wear eye protection and gloves.
- Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.
- Do not jump start or charge a frozen battery. Warm battery to 16°C (60°F).

1. Remove rear cover from mower. (See Removing and Installing Rear Cover in Service section.)
2. Charge the battery. (See Charging Battery in Service section.)
3. Make sure battery harness is connected to the battery and install rear cover on machine.

### Install Discharge Assembly

Your mower comes with a recycling cover installed on the mower deck, and is ready to be operated as a mulching mower. The recycling cover is raised to install the discharge deflector or the grass bag. See the Operating section for information to install the discharge deflector or the grass bag.

### Check and Add Engine Oil

1. Remove dipstick and check engine oil level. (See Checking Engine Oil Level in the SERVICE section.)



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# ASSEMBLY

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2. Add the supplied oil as needed up to the FULL mark on the dipstick. Do not overfill.

## **Insert Fuel Stabilizer Cartridge in Fresh Start™ Fuel Cap (If Equipped)**

Insert the fuel stabilizer cartridge if your machine is equipped with a Fresh Start fuel cap. (See Inserting Fuel Stabilizer Cartridge in Fresh Start Fuel Cap in the SERVICE section.)

## **Fill Fuel Tank**

Fill the fuel tank. (See Filling Fuel Tank in the SERVICE section.)

## **Check Machine Safety System**

Perform safety system check to make sure the blade/engine control lever is functioning properly. (See Testing Safety System in the OPERATING section.)

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