

JOHN DEERE
WORLDWIDE COMMERCIAL & CONSUMER
EQUIPMENT DIVISION

Walk-Behind Rotary Mower
JA62

OMGX21223 J2

OPERATOR'S MANUAL



JOHN DEERE

North American Version
Litho in U.S.A.



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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'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.

This manual and safety signs on your machine may also be available in other languages (see your John Deere 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. 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 and LEFT 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.

Setting fuel delivery beyond published factory specifications or otherwise overpowering will result in loss of warranty protection for this machine.

Before delivering this machine, your dealer performed a predelivery inspection to ensure best performance.

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.

CALIFORNIA Proposition 65 Warning



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

PRODUCT IDENTIFICATION

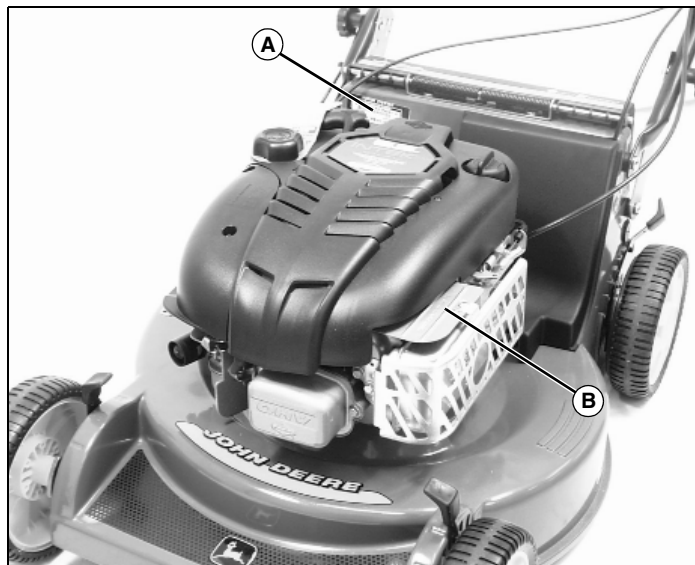
Record Identification Numbers

21-Inch Walk-Behind Rotary Mower

JA62 PIN (110001-)

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.



MX7431

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

PRODUCT IDENTIFICATION NUMBER (A):

ENGINE SERIAL NUMBER (B):

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OMGX21223 J2 - English

SAFETY

Understanding The Machine Safety Labels



MIF

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



MIF, M73170

ROTATING BLADE

DO NOT PUT HANDS OR FEET UNDER OR INTO MOWER WHEN ENGINE IS RUNNING

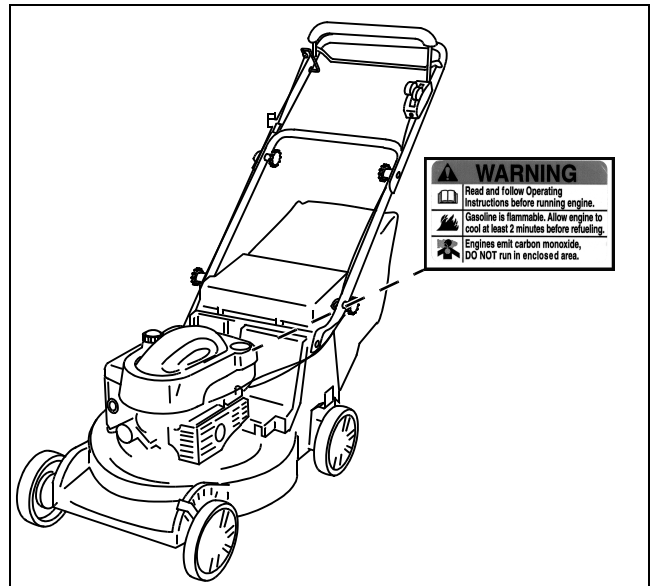
DANGER



MIF, M73171

KEEP HANDS and FEET AWAY
CUTTING BLADES

WARNING

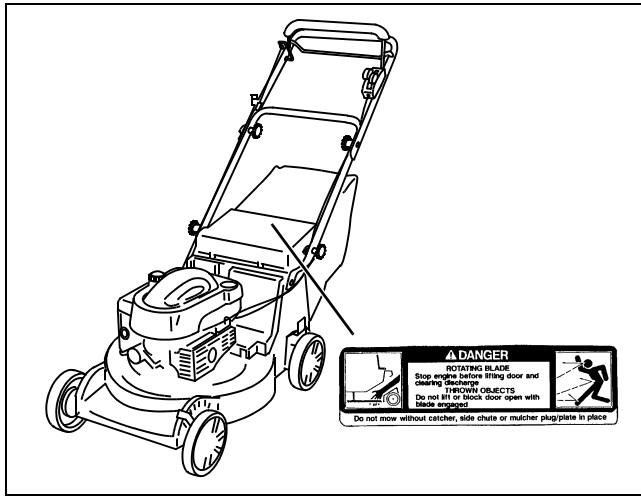


MIF, MX4878

- Read and follow Operating Instructions before running engine.
- Gasoline is flammable. Allow engine to cool at least 2 minutes before refueling.
- Engines emit carbon monoxide, DO NOT run in enclosed area.

SAFETY

DANGER



MIF, M73467

ROTATING BLADE

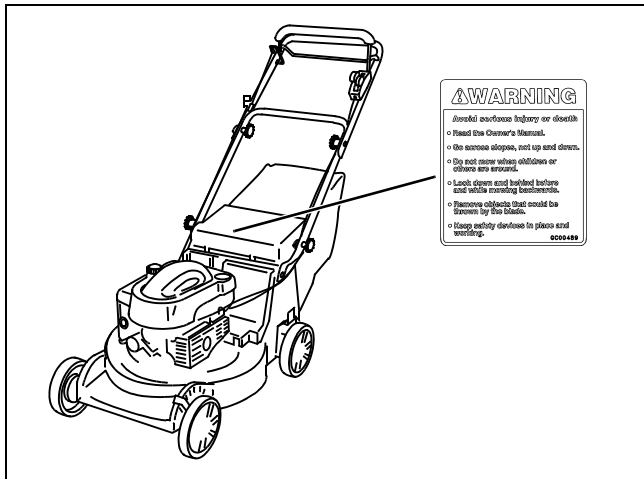
Stop engine before lifting door and clearing discharge

THROWN OBJECTS

Do not lift or block door open with blade engaged

Do not mow without catcher, side chute or mulcher plug/plate in place

WARNING



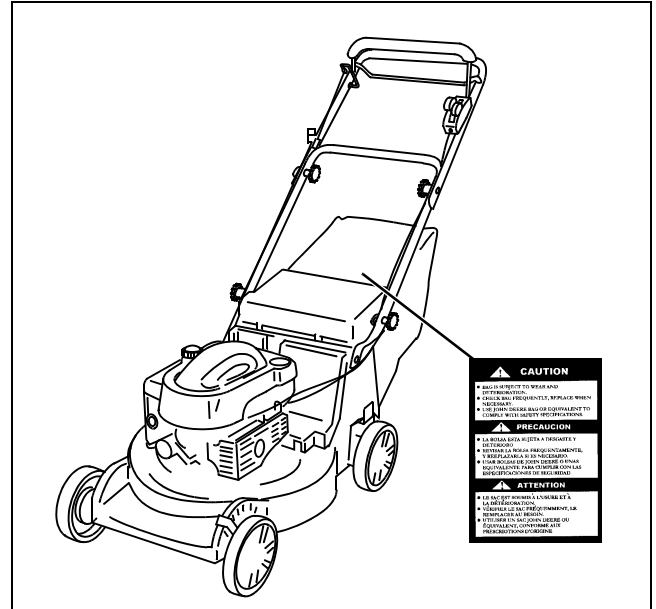
MIF, GC00489

Avoid serious injury or death

- Read the Owner's Manual.
- Go across slopes, not up and down.
- Do not mow when children or others are around.
- Look down and behind before and while mowing backwards.
- Remove objects that could be thrown by the blade.

- Keep safety devices in place and working.

CAUTION



MIF, M96543

- BAG IS SUBJECT TO WEAR AND DETERIORATION.
- CHECK BAG FREQUENTLY. REPLACE WHEN NECESSARY.
- USE JOHN DEERE BAG OR EQUIVALENT TO COMPLY WITH SAFETY SPECIFICATIONS.

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.

SAFETY

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

Certification

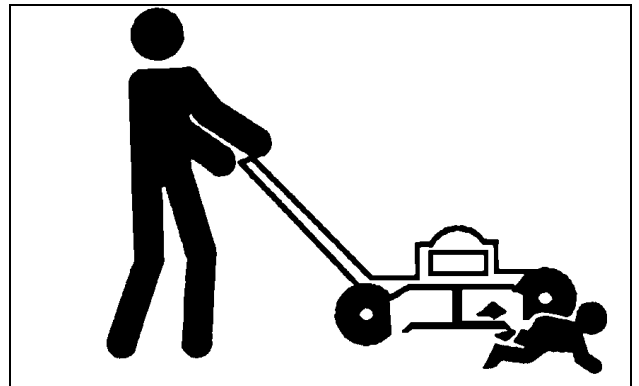
Your mower has been certified by an independent laboratory for compliance with American National Standard B-71.1, "Safety Specifications" for Power Lawn Mowers, Lawn and Garden Tractors, and Lawn Tractors.

Operating Safely

- Read, understand and follow all instructions in the manual, on the machine and on the safety video before starting.
- Only allow responsible adults, who are familiar with the instructions to operate the machine.
- 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.
- Do not operate mower without discharge chute or entire grass catcher in place.
- Check brake action before you operate. Adjust or service brakes as necessary.
- 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.

- Be aware of the mower discharge direction and make sure that no one is in the path of the discharge direction.
- 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.
- 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.

Rotating Blades are Dangerous - Protect Children and Prevent Accidents



M61473

Protect Children:

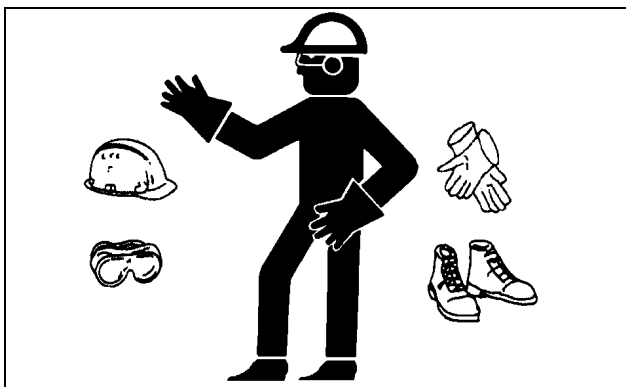
- Never assume that children will remain where you last saw them. Children are attracted to mowing activity, stay alert to the presence of children.
- Keep children in the house when you are operating the machine.
- Turn machine off if a child enters the area.
- Use extra care when you come to blind corners, shrubs, trees, or other objects that may block your vision.
- Do not let children or an untrained person operate the machine.

Help Prevent Serious or Fatal Accidents:

- Be alert at all times, people especially children can move quickly into the area before you know it.
- Stop the blade when crossing gravel drives, walks, or roads.
- Shut off blades when you are not mowing.
- Keep hands, feet, and clothing away from rotating blades.

SAFETY

Wear Appropriate Clothing



TS206TR

- 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.
- Wear a suitable protective device such as earplugs. Loud noise can cause impairment or loss of hearing.
- Do not wear radio or music headphones. Safe service and operation requires your full attention.

Practice Safe Maintenance



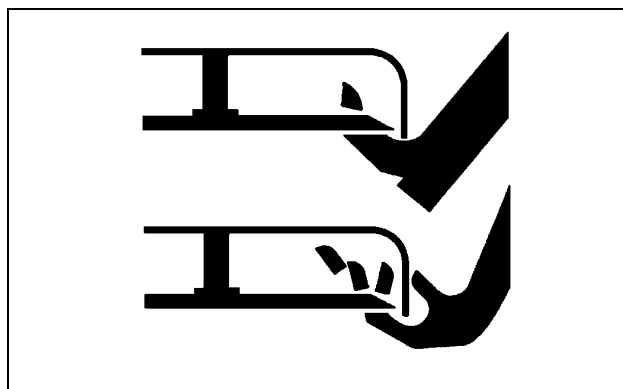
TS218

- 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.
- Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.
- Lower attachments to the ground before servicing machine. Disengage all power and stop the engine. Lock park brake and remove the key. Let machine cool.
- Disconnect battery or remove spark plug wire before

making any repairs.

- Keep all nuts and bolts tightened, especially blade attachment bolts.
- 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. Replace all worn or damaged safety and instruction decals.
- To prevent fires, remove any buildup of grease, oil, or debris from the machine, especially the engine compartment.
- Charge battery in an open, well-ventilated area, away from sparks. Unplug battery charger before connecting or disconnecting from the battery. Use insulated tools.
- Do not modify machine or safety devices. Unauthorized modifications may impair its function and safety.
- Do not wear radio or music headphones while servicing the machine. Safe service requires your full attention.

Avoid Injury from Contacting Blade



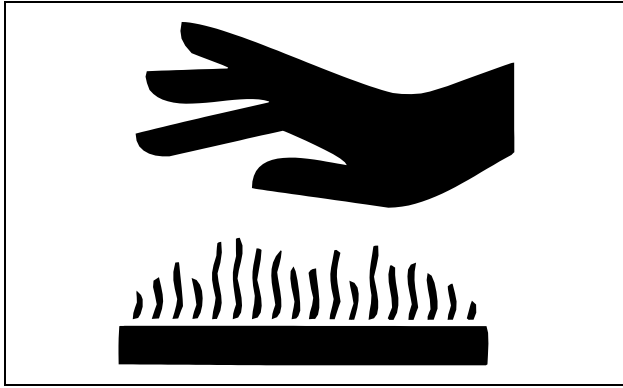
M41421

Before you unplug or adjust machine:

- Stop the engine.
- Wait for blade to stop.
- Keep hands, feet and clothing away from blade when engine is running.

SAFETY

Prevent Fires

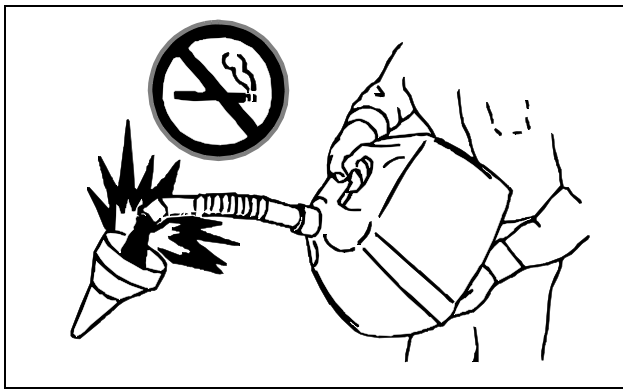


MIF

- Remove grass and debris from engine compartment and muffler area, before and after operating machine, especially after mowing or mulching in dry conditions.
- To reduce fire hazard, keep engine and engine compartment free of grass, leaves, or excessive grease.
- Allow engine to cool before storing in any enclosure.
- Never remove fuel cap, or add fuel with engine running or hot. Allow engine to cool for several minutes.
- Never store equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.

Handling Fuel Safely

Fuel and fuel vapors are highly flammable:



MIF

- 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 the fuel cap or add fuel with the engine running.
- Never fill fuel tank or drain fuel from a machine in an enclosed area. Fill fuel tank outdoors.
- Prevent fires. Clean up spilled fuel immediately.

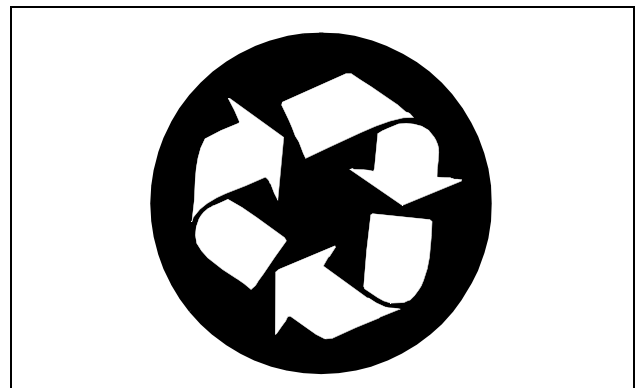
- Do not store machine with fuel in tank in a building where fumes may reach an open flame or spark.
- Prevent fire and explosion caused by static electric discharge. Use only non-metal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM). If using a funnel, make sure it is plastic and has no screen or filter.



MIF

- 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.
- For gasoline engines, do not use gas with methanol. Methanol is harmful to your health and to the environment.

Handling Waste Product and Chemicals



MIF

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.

SAFETY

- 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. The seller of the chemical products used with your machine is responsible for providing the MSDS for that product.

OPERATING

Daily Operating Checklist

- ☐ Test safety systems.
- ☐ Check fuel level.
- ☐ Check engine oil level.
- ☐ Remove grass and debris from machine.
- ☐ Check area below machine for leaks.

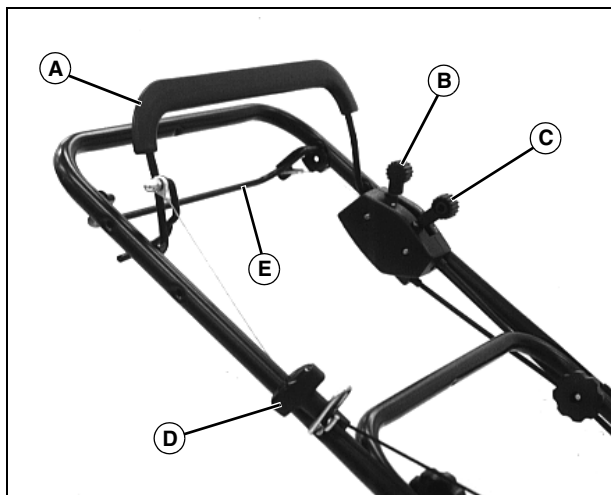
Avoid Damage to Plastic and Painted Surfaces

- 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.

Avoid Damage to Aluminum Mower Deck

- Clean under mower deck to remove harmful buildup of lawn chemicals.
- Use regular water pressure to clean under deck. Do not use high pressure spray. High pressure spray may damage clutch and transmission parts.

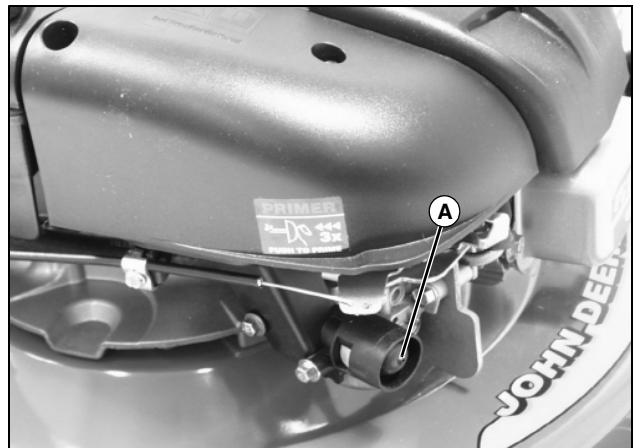
Handle Controls



M60957

- A - Blade/Engine Control Lever
- B - Gear Shift Lever
- C - Throttle Lever
- D - Starter Handle
- E - Traction Clutch Lever

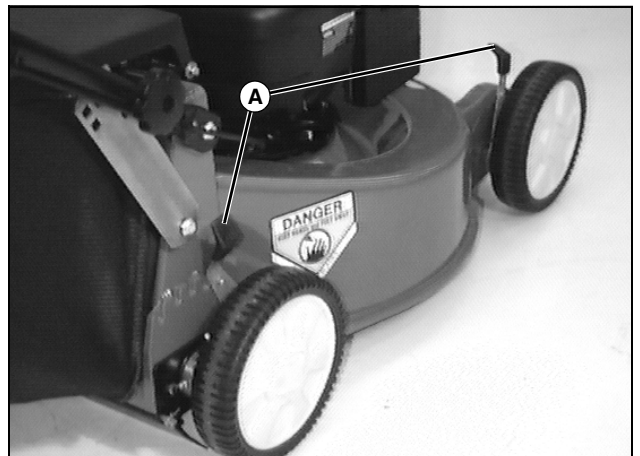
Engine Controls



MX7422

A - Primer Bulb

Cutting Height Controls



M92142

A - Cutting Height Levers

Adjusting Cutting Height



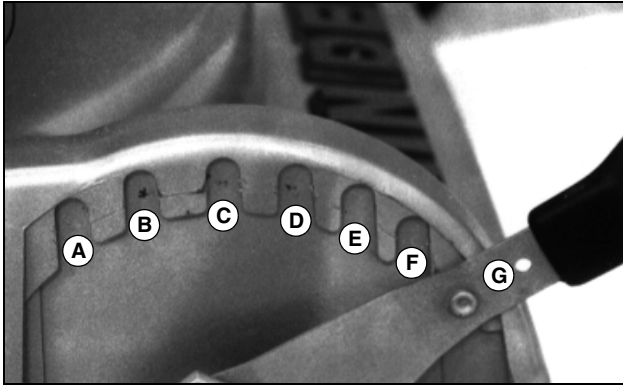
CAUTION: Avoid injury! Rotating blades are dangerous. Before you adjust cutting height: Stop engine and wait for moving parts to stop.

NOTE: Adjust both levers to same height except for two lowest cutting heights (A and B on following chart). At two lowest cutting heights, raise rear lever one notch higher than front lever. This adjustment allows for increased air flow when bagging and side discharging, and provides a larger exit window for clippings when mulching.

OPERATING

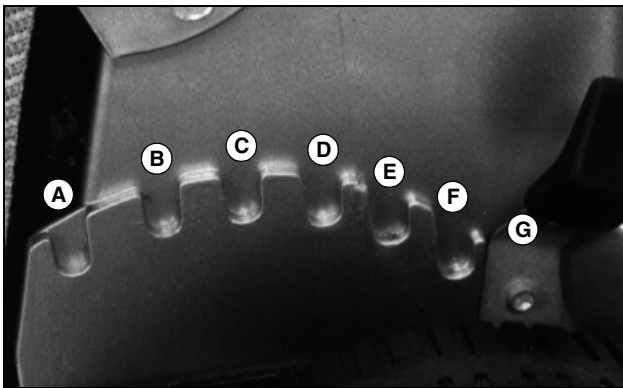
Begin at upper cutting height, then adjust downward as desired, to avoid scalping lawn with too low a setting.

Highest cutting height for rear wheel is lever in furthest front position. Highest cutting height for front wheel is lever in furthest back position.



M73261

Picture Note: Right front shown above



M73260

Picture Note: Right rear shown above

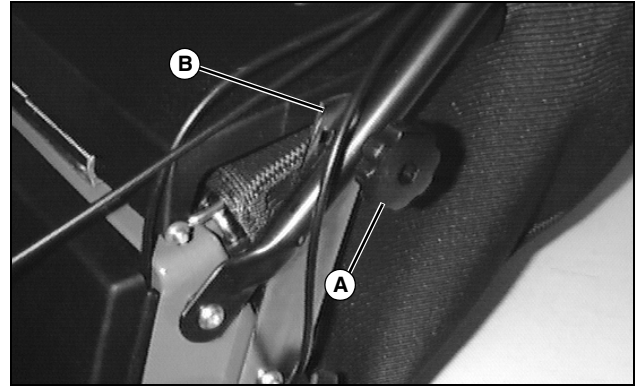
Key	Cutting Height Adjustments In mm (Inches)
(A)	13 mm (1/2 in.)
(B)	25 mm (1 in.)
(C)	38 mm (1-1/2 in.)
(D)	50 mm (2 in.)
(E)	64 mm (2-1/2 in.)
(F)	75 mm (3 in.)
(G)	90 mm (3-1/2 in.)

To help move rear wheel levers:

1. Lift lower handlebar slightly with one hand to take some weight off wheel.

2. Move lever to desired position with other hand.

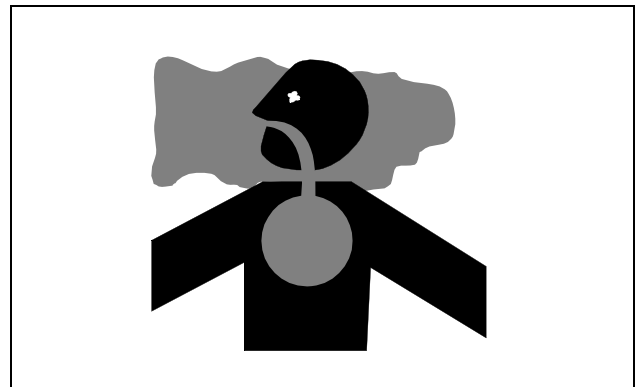
Adjusting Handle Height



M88841

1. Remove knob (A) and bolt from each side.
2. Move handle to desired height.
3. Line up square hole in bracket (B) with hole in handle.
4. Install bolt through holes. Install knob.
5. Repeat Steps 2–4 on other side.

Testing Safety Systems



MIF

OPERATING



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

Move the machine 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 machine.

If there is a malfunction during one of these procedures, do not operate machine. **See your John Deere dealer for service.**

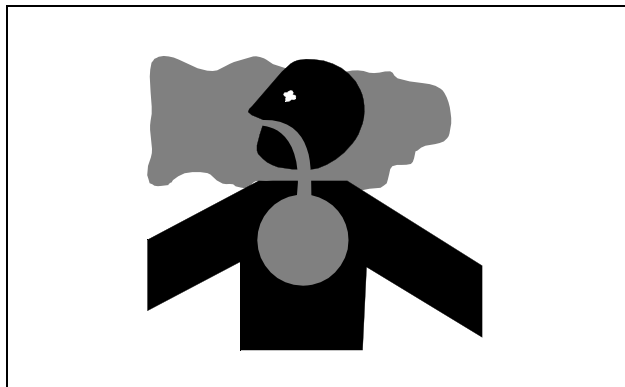
Perform these tests in a clear open area. Keep bystanders away.

Testing Blade/Engine Control Lever

1. Start engine.
2. Release blade/engine control lever.
3. Listen for blade and engine to stop. Do not look under mower to check blade.

Result: Blade and engine should stop within three seconds. If blade and engine continue to run, there is a problem with your safety interlock circuit.

Starting Engine



MIF



CAUTION: Avoid injury! Engine exhaust fumes can cause sickness or death. Run engine only in a ventilated area.

If you run engine in an enclosed area, remove exhaust with exhaust pipe extension, or open doors to bring in outside air.

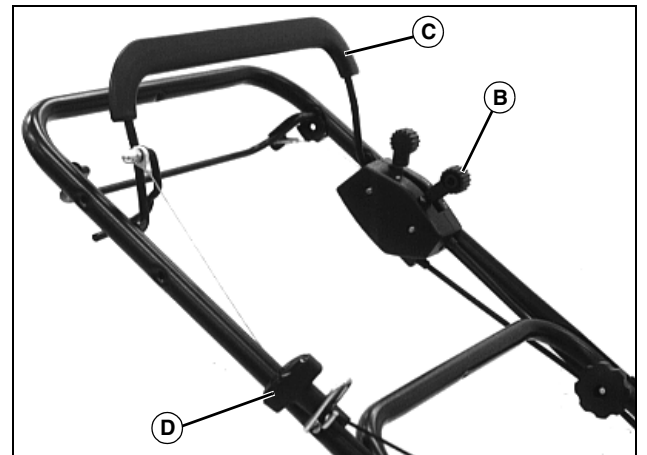
IMPORTANT: Avoid damage! To help prevent damage to starter and band brake, do not start the engine:

- **When blade is under load, such as, in heavy grass or**
- **When blade control lever is released.**



MX7422

1. Prime engine by pressing primer bulb (A) three times.



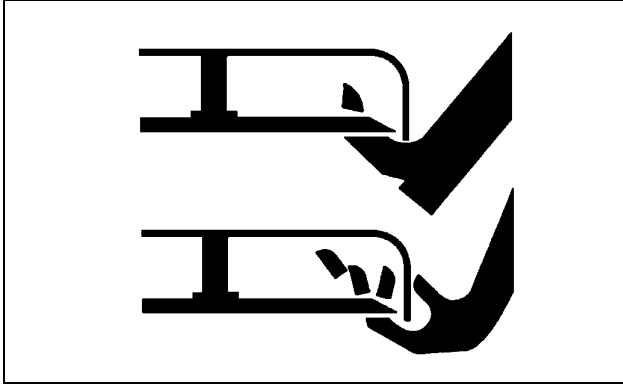
M60957

2. Move throttle lever (B) to the fast position.
3. Hold blade/engine control lever (C) against handle.
4. Pull starter handle (D) until you feel resistance. Then pull fast and steady.

OPERATING



CAUTION: Avoid injury! When engine is running, blade is turning.
Keep hands, feet and clothing away from blade.

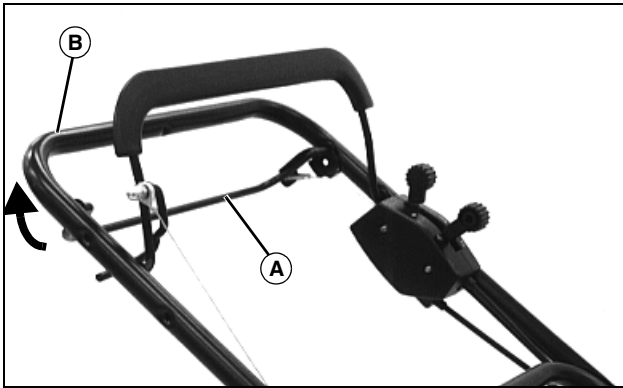


M41421

5. When engine starts, return rope slowly until handle is in bracket.

Forward Travel

To Travel Forward:



M60957

Pull and hold traction clutch lever (A) against handle (B).

To Stop Forward Travel:

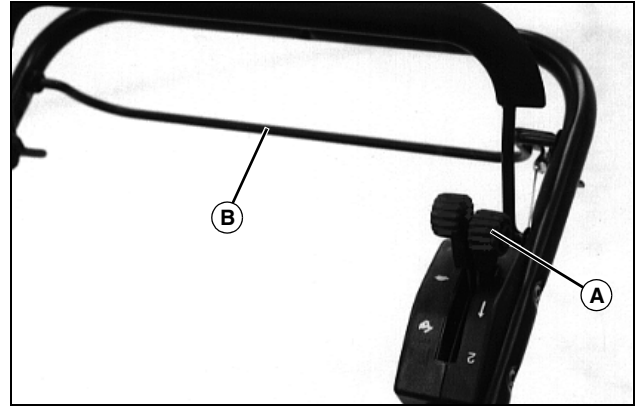
Release lever (A). Release lever before you turn.

NOTE: Rear wheels will make a clicking noise when you push mower forward. This means drivetrain is operating correctly.

Travel Speeds

- 1st Gear: 3.2 kph (2 mph)
- 2nd Gear: 5 kph (3 mph)

To change travel speeds:



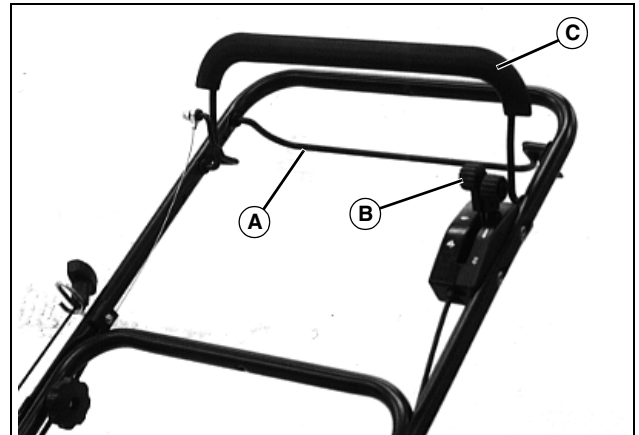
M60958

1. Stop. Move gear lever (A) to desired position:
 - 1st Gear: Move lever to rear notch as shown.
 - 2nd Gear: Move lever to forward notch.
2. Engage traction clutch lever (B).

Stopping Engine



CAUTION: Avoid injury! Engine and blade must stop within 3 seconds. If not, see your John Deere dealer.

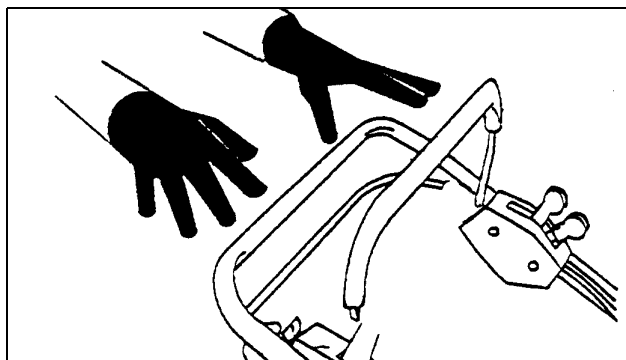


M60967

1. Release traction clutch lever (A).
2. Pull throttle lever (B) to the slow position.
3. Release blade/engine control lever (C).

OPERATING

Emergency Stopping



Release handle and levers:

- Mower travel will stop.
- Blade will stop.
- Engine will stop.

Using Grass Bag

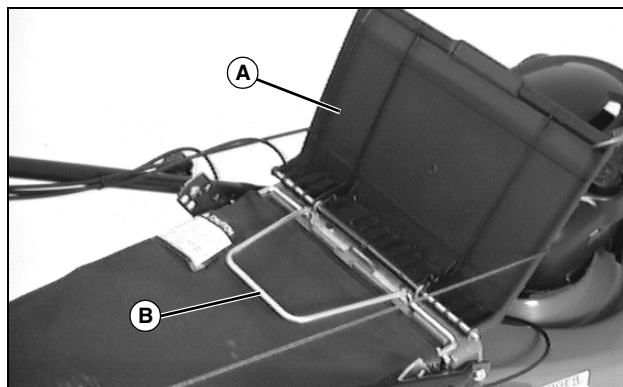


CAUTION: Avoid injury! To avoid injury from cutting blades:

- Do not put hands or feet under or into mower when engine is running.
- Stop engine before lifting door and clearing discharge chute.
- Do not lift or block door open with blade engaged.
- Do not mow without catcher, side chute or mulcher plug/plate in place.

IMPORTANT: Avoid damage!

- Bag is subject to wear and deterioration.
- Check bag frequently, replace when necessary.
- Use John Deere bag or equivalent to comply with safety specifications.



1. Lift and hold door (A).
2. Grasp handle (B). Lift bag off mower.
3. Gently lower door.

Using Mower Blade

High Lift Blade

Mower was delivered from factory with standard high lift blade installed.

For best bagging performance use a high lift blade when using the bagger.

Mulch Blade

See your John Deere dealer to purchase the optional mulch blade.

Mulch blade works equally well with mulch plug, chute, or

OPERATING

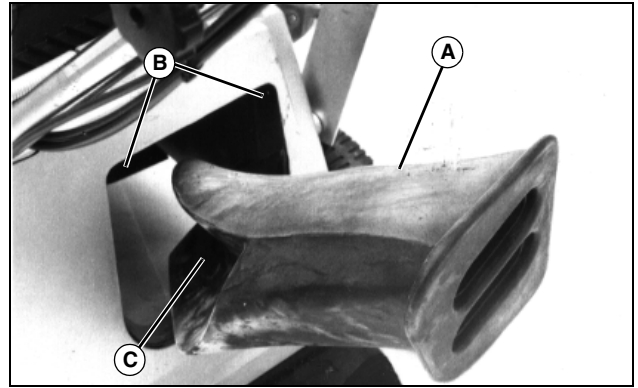
bag. There is no need to change blade when you change attachment.

Using Discharge Chute (Optional)



CAUTION: Avoid injury! To avoid injury from cutting blades:

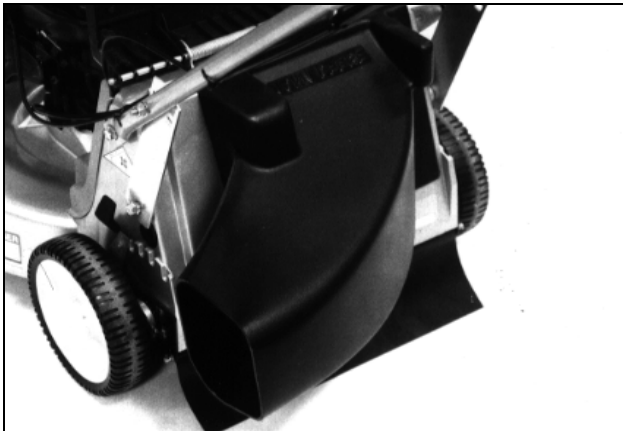
- Do not put hands or feet under or into mower when engine is running.
- Stop engine before lifting door and clearing discharge chute.
- Do not lift or block door open with blade engaged.
- Do not mow without catcher, side chute or mulcher plug/plate in place.



M75530

2. Install plug (A) in opening (B) with (C) facing left.
3. Push and turn plug to the left until it is seated.
4. Lower door.

1. Stop engine. Lift and hold door.
2. Remove grass bag.



M73294

3. Install chute. Lower door to hold chute in place.

Using Mulch Plug (Optional)

See your John Deere dealer for optional mulch plug.

Mulch blade is optional equipment for the mower and works equally well with mulch plug, chute, or bag. There is no need to change blade when you change attachment.



CAUTION: Avoid injury! Do not operate mower unless grass bag, chute, or plug is held in place by door. Before you unplug mower or remove mulch plug, Stop engine.

1. Lift and hold door up.

REPLACEMENT PARTS

Service Literature

If you would like a copy of the Parts Catalog or Technical Manual for this machine call:

- **U.S. & Canada:** 1-800-522-7448.
- **All Other Regions:** Your John Deere dealer.

Parts

We recommend John Deere quality parts and lubricants, available at your John Deere dealer.

Part numbers may change, use part numbers listed below when you order. If a number changes, your dealer will have the latest number.

When you order parts, your John Deere dealer needs your machine serial number and engine serial number. These are the numbers that you recorded in the Product Identification section of this manual.

Part Number

Item	Part Number
Air Cleaner	
• Foam Pre-cleaner	• M143275
• Paper Element	• M143278
Belt	M77167
Mower Blades:	
• High Lift Blade (Standard)	• M77178
• Mulch Blade (Optional)	• M125413
Spark Plug	M78543 Champion RC12YC

(Part numbers are subject to change without notice. Part numbers may be different outside the U.S.A.)

SERVICE INTERVALS

Servicing Your Machine

IMPORTANT: Avoid damage! Operating in extreme conditions may require more frequent service intervals:

- Engine components may become dirty or plugged when operating in extreme heat, dust or other severe conditions.
- Engine oil and spark plugs may lose efficiency if machine is operated constantly at slow or low engine speeds or run for short periods of time.

Please use the following timetables to perform routine maintenance on your machine.

Before Each Use

- Check oil level.

After Each Use

- Clean the mower.

Break In - After First 5 Hours of Operation

- Change engine oil.

Every 25 Hours

- Change engine oil.
- Clean air cleaner element.
- Tighten blade bolt.
- Lubricate rear axle bushings.
- Clean and gap spark plug.
- Clean belt and transmission area.

Every 100 Hours

- Have your John Deere dealer check flywheel brake liner.

SERVICE

Engine Warranty Maintenance Statement

Maintenance, repair, or replacement of the emission control devices and systems on this engine, which are being done at the customers expense, may be performed by any non road engine repair establishment or individual. Warranty repairs must be performed by an authorized John Deere dealer.

Adjusting Carburetor

NOTE: Carburetor is calibrated by the engine manufacturer and should not require any adjustments.

If engine is operated at altitudes above 1829 m (6,000 ft), some carburetors may require a special high altitude main jet. See your John Deere dealer.

If engine is hard to start or runs rough, check the Troubleshooting section of this manual.

After performing the checks in the troubleshooting section and your engine is still not performing correctly, contact your John Deere dealer.

Avoid Fumes



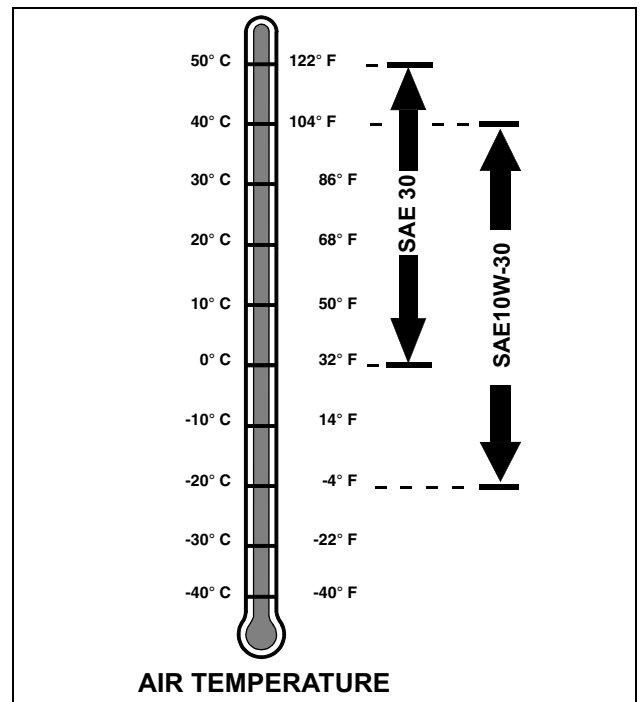
CAUTION: Avoid injury! Engine exhaust fumes contain carbon monoxide and can cause serious illness or death.

Move the machine 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.

Engine Oil



MIF

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following John Deere oils are preferred:

- TORQ-GARD SUPREME® (SAE 30)

The following John Deere oils are also recommended, based on their specified temperature range:

- TURF-GARD® (SAE 10W-30)
- PLUS-4® (SAE 10W-30)

Other oils may be used if above John Deere oil is not available, provided they meet one of the following specifications:

- SAE 10W-30—API Service Classification SG or higher
- SAE 30—API Service Classification SC or higher

Checking Engine Oil Level



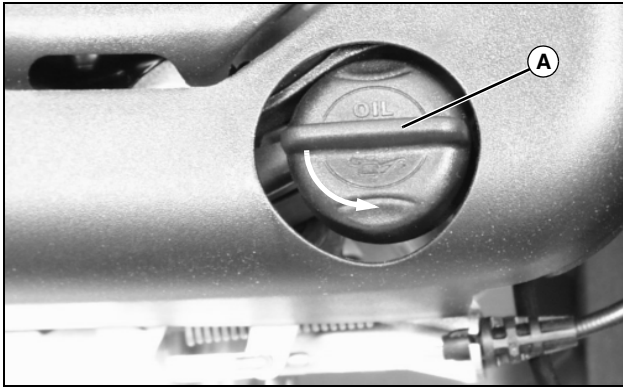
CAUTION: Avoid injury! Before you check or add oil:

- Stop engine. Let it cool.

IMPORTANT: Avoid damage! Change oil after first 5 hours of operation.

1. Park mower on level surface and stop engine.

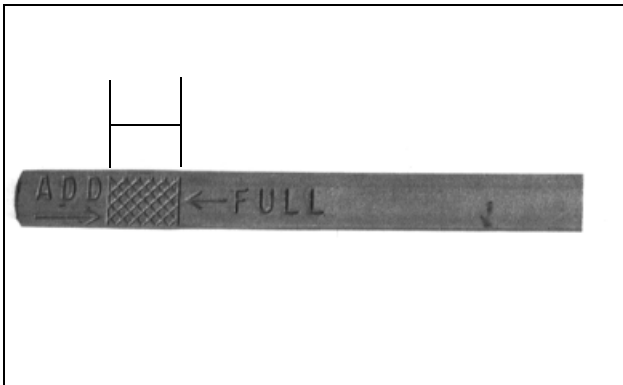
SERVICE



MX7423

2. Turn oil dipstick (A) 1/4 turn counterclockwise and remove from the filler tube.
3. Wipe dipstick off with a clean cloth.
4. Install dipstick. Turn oil dipstick (A) 1/4 turn clockwise and tighten.

IMPORTANT: Avoid damage! If oil level is below ADD mark, Do not run engine.



M73272

5. Remove dipstick. Check oil level. Oil should be between ADD and FULL marks shown on dipstick, not above FULL mark.
6. Add oil if necessary.
7. Install and tighten dipstick.

Changing Engine Oil



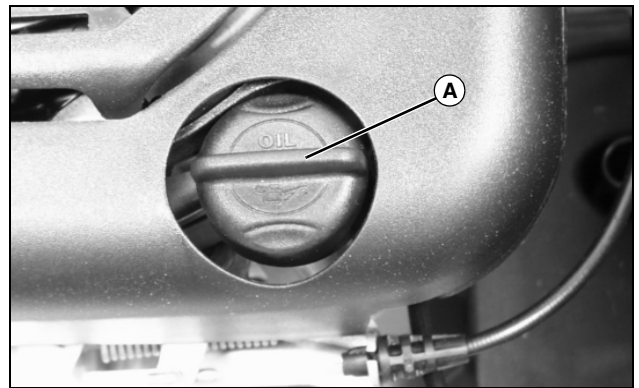
CAUTION: Avoid injury!

- Used oil may harm environment and people if it is dumped on the ground or into a drain or a body of water. Call your local Recycling Center or John Deere dealer to learn how to recycle used oil.
- Engine may be hot. Use caution to avoid burns to the hands.
- Fuel is highly flammable. To prevent fuel spillage from occurring, drain fuel from tank before tipping mower to drain oil.

IMPORTANT: Avoid damage!

- Change oil after first 5 hours of operation.
- Change oil while engine is warm.
- If mower is not operated 25 hours during the mowing season, change oil before storing mower.
- Help prevent air cleaner damage and hard starting, turn mower onto the left side when servicing.

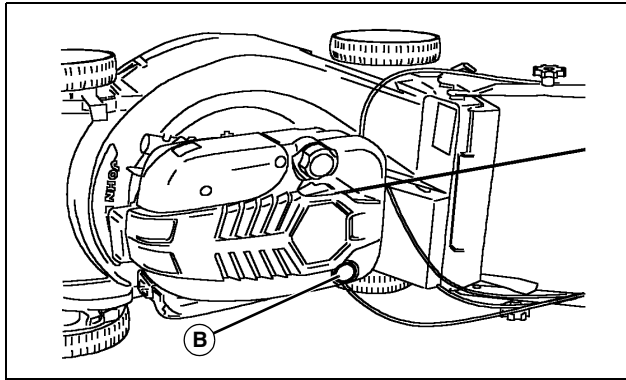
1. Park mower on a level surface.
2. Drain fuel from tank or run engine until fuel tank is empty or near empty.
3. Stop engine and disconnect spark plug wire.



MX7423

4. Turn oil dipstick (A) 1/4 turn counterclockwise and remove from the oil filler tube.

SERVICE



5. Insert a plastic drain tube firmly inside oil filler tube opening (B).

IMPORTANT: Avoid damage! To help prevent air cleaner damage and hard starting:

- Turn mower on its left side.

6. Place a drain pan on the left side of the mower.
7. Turn mower onto its left side.
8. Allow engine oil to drain from the dipstick filler tube location into the drain pan.
9. After oil has drained, return mower to an upright position.
10. Remove plastic drain tube.
11. Clean area around filler tube.

IMPORTANT: Avoid damage! Do not fill oil beyond FULL mark. Oil capacity for a dry engine is 0.47 L (16 oz). You may not need to put in entire amount when you change oil. Check oil level with dipstick.

12. Add oil through dipstick filler tube. Check oil level and continue to add oil to FULL mark.
 - To check oil level, wipe dipstick, install dipstick and tighten, then remove dipstick and read level.
13. Install and tighten dipstick.
14. Connect spark plug wire.

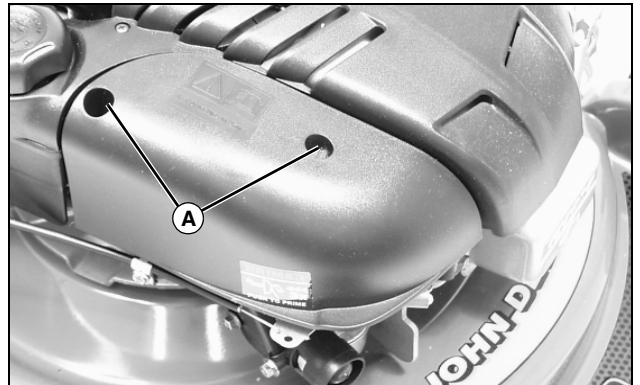
Checking and Cleaning Air Cleaner Element

1. Park machine safely. (See Parking Safely in the Safety Section.)

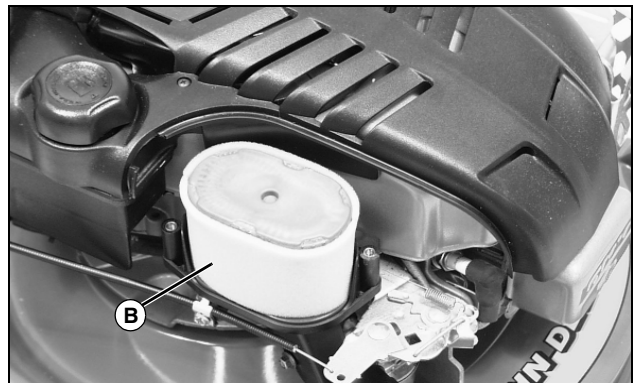


CAUTION: Avoid injury! Touching hot surfaces can burn skin. The engine and components will be hot if the engine has been running. Allow the engine to cool before servicing.

2. Let engine cool.
3. Disconnect spark plug wire.
4. Clean dirt and debris from the air cleaner cover.



5. Loosen screws (A), and remove cover.



6. Inspect the foam precleaner (B) without removing it. If the foam precleaner is dirty:
 - a. Remove it from the filter carefully, leaving the paper element in the air cleaner housing.
 - b. Wash precleaner in a solution of warm water and liquid detergent.
 - c. Rinse precleaner thoroughly. Squeeze out excess water in a dry cloth until precleaner is completely dry.

SERVICE

IMPORTANT: Avoid damage! Dirt and debris can enter the engine through a damaged filter element.

- Do not wash paper element.
- Do not attempt to clean paper element by tapping against another object.
- Do not use pressurized air to clean element.
- Replace element only if it is very dirty, damaged or the seal is cracked.

7. Inspect the paper element without removing it. If the paper element is damaged or dirty, remove and replace it with a new element.

8. Clean air cleaner base carefully, preventing any dirt from falling into carburetor.

9. Install foam precleaner onto paper element and install into air cleaner base.

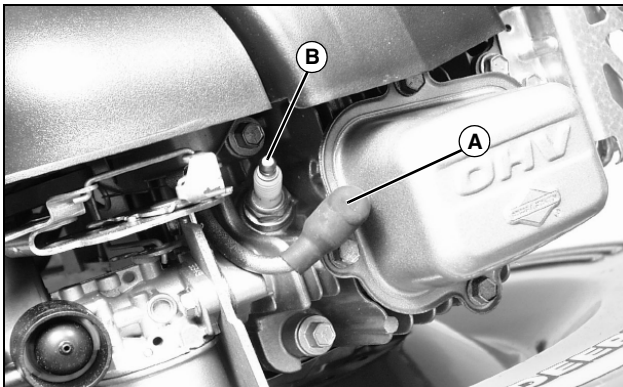
10. Close cover and tighten screws. Do not overtighten.

Cleaning and Gapping Spark Plug



CAUTION: Avoid injury! Before you remove spark plug:

- Stop engine. Let engine cool.



MX7426

1. Disconnect spark plug wire (A). Remove spark plug (B).
2. Carefully wire brush carbon from plug. Do not clean it with abrasives in a machine.
3. Inspect plug for damage. Replace damaged plug.
4. Adjust gap: 0.51 mm (0.02 in.).
5. Install and tighten plug to 20 N•m (15 lb-ft).
6. Connect wire.

Cleaning Engine Cooling Fins

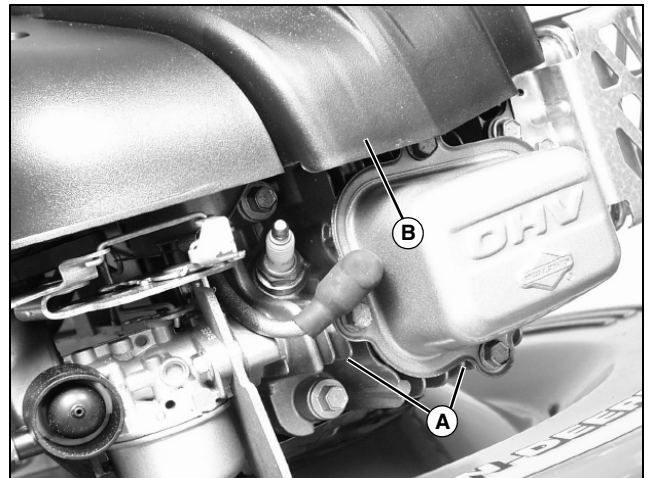


CAUTION: Avoid injury! Before you clean fins:

- Stop engine.
- Let it cool.
- Wear eye protection to guard against flying debris.

IMPORTANT: Avoid damage! Keep fins clean or engine may overheat.

1. Park mower on level surface and stop engine.
2. Let engine cool.
3. Disconnect spark plug wire.



MX7426

4. Clean fins (A) with brush, rag, or compressed air.
5. Blow compressed air under shroud (B).

Adjusting Throttle Cable

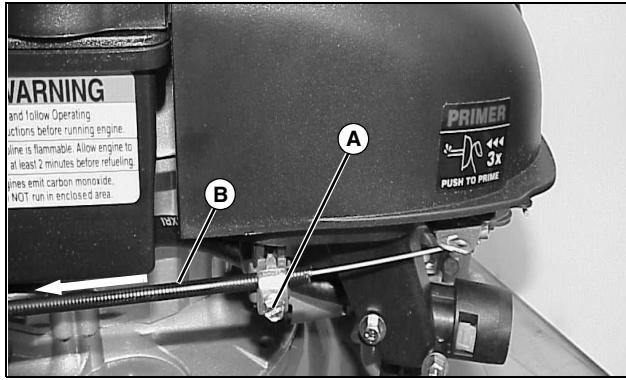


CAUTION: Avoid injury! Before you adjust cable:

- Stop engine. Let engine cool.

1. Move throttle lever to fast position.

SERVICE



MX7433

2. Loosen screw (A) until cable sheath (B) moves freely.
3. Grasp cable sheath (B) and pull toward rear of machine until cable sheath stops moving.
4. Tighten screw (A).

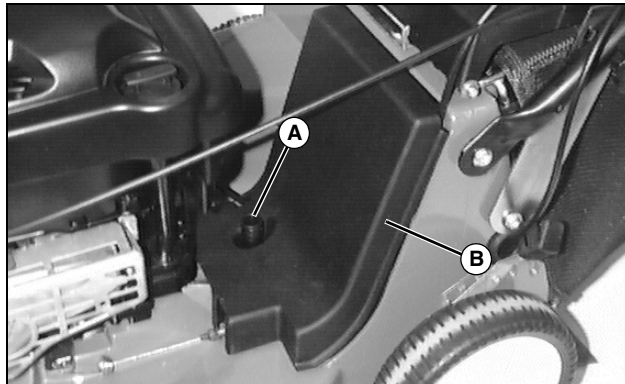
Adjusting Traction Cable



CAUTION: Avoid injury! Do not operate mower without belt shield. Before you adjust clutch:

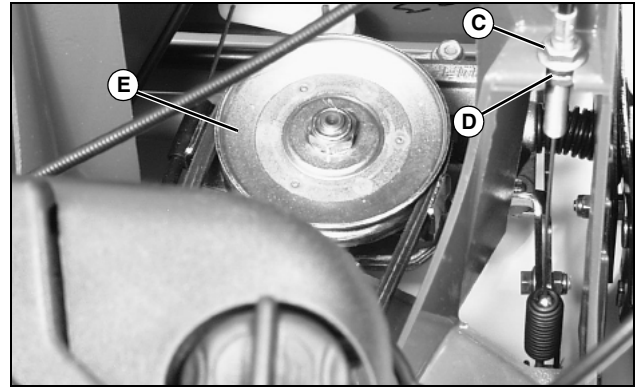
- Stop engine. Let it cool.
- Keep people and pets away from mower.
- Keep hands and tools away from belt area when engine is running.

NOTE: Adjust cable if mower slows going uphill.



M88840

1. Unscrew and remove knob (A).
2. Apply slight pressure to the top of protective shield (B) to release tabs securing shield to the mower deck.
3. Remove shield (B).



MX7428

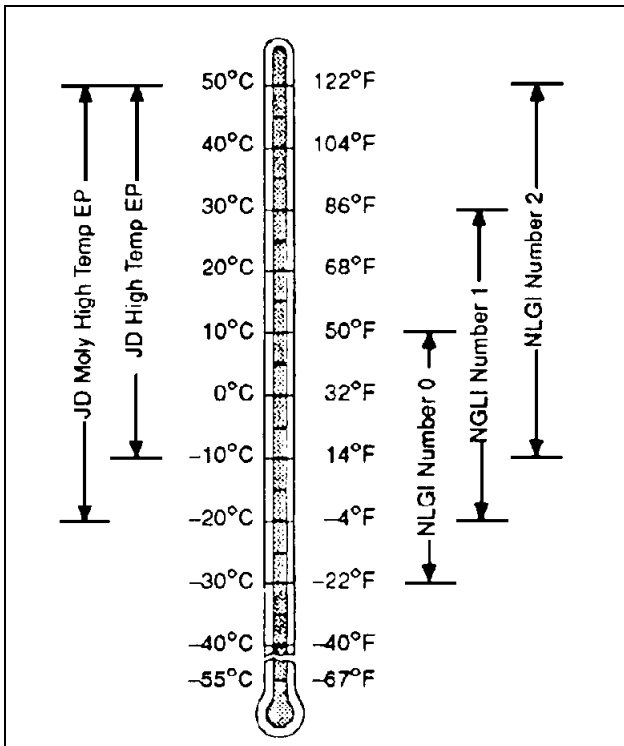
4. Loosen nut (C). Turn nut (D) down 1/8 in. (3 mm).
5. Tighten nut (C).
6. Start engine.
7. Engage traction clutch lever to check clutch action.
8. If clutch needs more tension, stop engine and repeat Steps 4 and 5.

NOTE: Pulley (E) should not turn when engine is running and clutch lever is disengaged. If pulley turns when engine is running, traction clutch cable is adjusted too tight.

9. Stop engine.
10. Install shield and knob.

SERVICE

Grease



TS1417a

Use grease based on the expected air temperature range during the service interval.

The following greases are preferred:

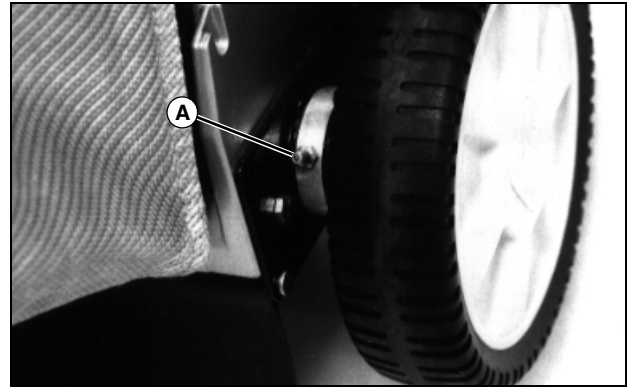
- John Deere MOLY HIGH TEMPERATURE EP GREASE
- John Deere HIGH TEMPERATURE EP GREASE
- John Deere GREASE-GARD™

Other greases may be used if they meet one of the following:

- SAE Multipurpose EP Grease with a maximum of 5% molybdenum disulfide.
- SAE Multipurpose EP Grease

Lubricating Rear Axle Bushings

1. Wipe grease fittings clean.



M73277

2. Lubricate bushing (A) on each side with John Deere multipurpose grease or an equivalent.

Cleaning Mower

IMPORTANT: Avoid damage! Do not use high pressure spray when cleaning under the deck. High pressure spray may cause damage to clutch and transmission parts.

Spray under deck to remove lawn chemicals and grass buildup.

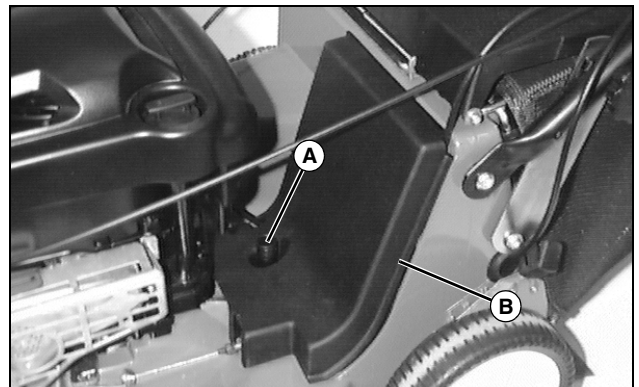
Cleaning Belt and Transmission Area



CAUTION: Avoid injury! Before you remove shield:

- Stop engine. Let it cool.
- Do not operate mower without belt shield.

IMPORTANT: Avoid damage! Do not use water when cleaning the belt and transmission areas.



M88840

1. Unscrew and remove knob (A).

SERVICE

2. Apply slight pressure to the top of protective shield (B) to release tabs securing shield to the mower deck. Remove shield.



M73281

3. Remove clippings or debris from belt area and top of the transmission (C) using a brush or compressed air.
4. Install shield and knob.

Cleaning Fuel Cap Vents



CAUTION: Avoid injury! Before you remove cap:

- Stop engine. Let it cool.
- Do not smoke.

1. Remove cap.



MX7434

2. Check two vents (A) under metal ring and vent in top, center of cap.
3. Clean cap and vents in nonflammable solvent. Let cap dry.
4. Install the cap.

Servicing Mower Blade



CAUTION: Avoid injury! Service blade safely:

- Stop engine. Let it cool.
- Disconnect spark plug wire.
- Wear gloves or wrap blade with a rag.

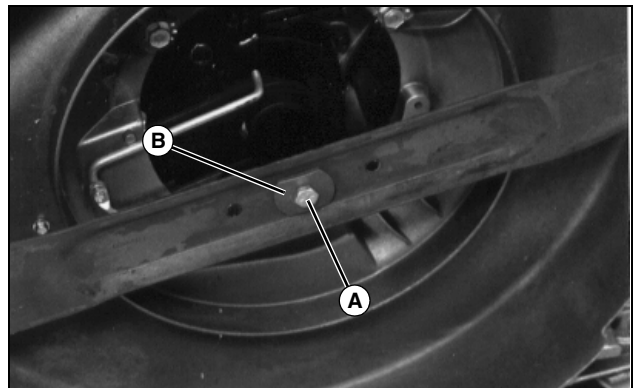
IMPORTANT: Avoid damage! To help prevent air cleaner damage and hard starting:

- Turn mower on its left side.

NOTE: Sharpened edges on blade tips must face upward when installing blade.

Checking Blade:

- Replace damaged blade.



M73275

- Tighten bolt (A) to 75 N•m (55 lb-ft).
- Sharpen dull blade.

Removing Blade:

- Remove bolt (A), washer (B), and blade.

NOTE: Make sure blade tip wing points up and washer cup is against blade.

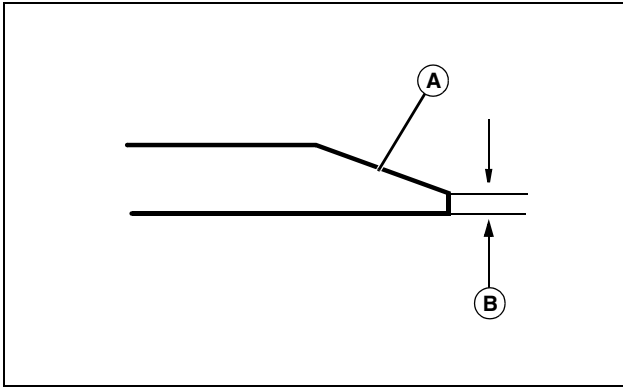
Sharpening Blade



CAUTION: Avoid injury! To avoid injury, wear goggles and gloves when sharpening, balancing or installing blade.

- Sharpen blade with grinder, hand file or electric blade sharpener

SERVICE

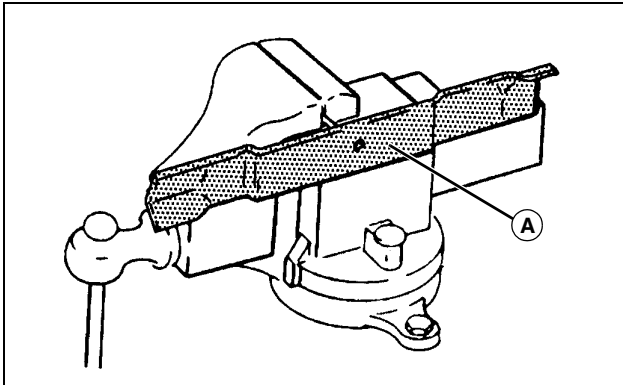


MIF

- Keep original bevel (A) when you grind.
- Blade should have 0.40 mm (1/64 in.) cutting edge (B).

IMPORTANT: Avoid damage! Balance blade after you sharpen it. An unbalanced blade may cause excessive vibration.

Balancing and Installing Blade



M61524

1. Put blade (A) on a nail in vise. Turn blade to horizontal position.
2. Check balance. If blade is not balanced, the heavy end of blade will drop.
3. Grind bevel of heavy end. Do not change bevel.
4. Install blade, washer (cup-side against blade), and bolt.
5. Tighten bolt to 75 N•m (55 lb-ft).

Filling Fuel Tank



CAUTION: Avoid injury! Fuel vapors are explosive and flammable:

- Shut engine off before filling fuel tank.
- Do not smoke while handling fuel.
- Keep fuel away from flames or sparks
- Fill fuel tank outdoors or in well ventilated area.
- Clean up spilled fuel immediately.
- Use clean approved non-metal container to prevent static electric discharge.
- Use clean approved plastic funnel without screen or filter to prevent static electric discharge.

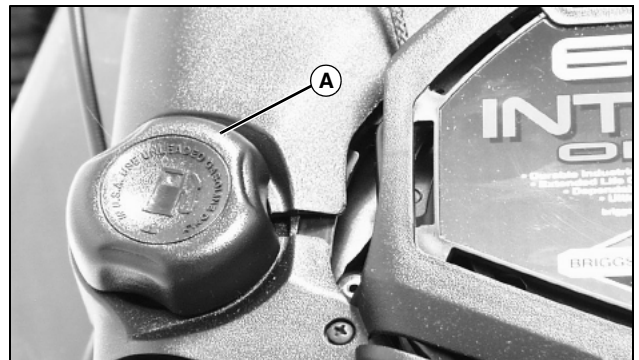
IMPORTANT: Avoid damage! Dirt and water in fuel can cause engine damage:

- Clean dirt and debris from the fuel tank opening.
- Use clean, fresh, stabilized fuel.
- Fill the fuel tank at the end of each day's operation to keep condensation out of the fuel tank.
- Use a non-metallic funnel with a plastic mesh strainer when filling the fuel tank or container.

Use regular grade 87 octane unleaded fuel.

Add John Deere fuel stabilizer to fuel before using it in your machine to prevent engine damage due to stale fuel. Follow directions on stabilizer container.

1. Stop engine. If engine is hot let it cool several minutes before you add fuel.
2. Remove grass clippings and other trash from tank area.



MX7429

3. Remove fuel cap (A).
4. Fill tank with fresh fuel only to bottom of filler neck.
5. Install fuel cap.

TROUBLESHOOTING

Using Troubleshooting Chart

If you are experiencing a problem that is not listed in this chart, see your John Deere dealer for service.

When you have checked all the possible causes listed and you are still experiencing the problem, see your John Deere dealer.

If	Check
Engine Will Not Start	Engine not primed three times. Fuel tank is empty. Stale or dirty fuel. Disconnected or dirty spark plug. Throttle lever not in fast position.
Engine Starts Hard Or Loses Power	Dirty fuel tank cap vents. Stale or dirty fuel. Dirty air cleaner element. Disconnected or dirty spark plug. Throttle cable out of adjustment.
Engine Runs Rough	Disconnected or dirty spark plug. Throttle lever not in fast position. Dirty cooling fins. Dirty air cleaner element.
Engine Overheats	Dirty blower housing and cooling fins.
Engine Vibrates Too Much	Loose blade bolt. Blade dull or not balanced.
Mower Pushes Or Pulls Hard	Rear axle not lubricated. Traction clutch needs adjustment.
Mower Mows Unevenly	Mowing pattern not changed. Wheel levers not adjusted in the same position. Blade dull or not balanced.
Discharge Chute Plugs	Grass not dry. Cutting height not raised high enough. Dirty or full grass bag. Mowing too fast. Engine not in fast throttle position.

TROUBLESHOOTING

If	Check
Mower Jerks Or Will Not Self-Propel	Traction belt broken. Traction clutch not adjusted. Dirty transmission. Shift lever not in 1st or 2nd gear.
Mulched Grass Appearance Is Poor: Clumps, Excessive Clippings, Rough Cut, Etc:	Grass not dry. Mowing too fast. Engine not in fast throttle position. Blade dull or not balanced. Cutting height set too low.

STORING MACHINE

Storing Safety



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

- If it is necessary to run an engine in an enclosed area, use an exhaust pipe extension to remove the fumes. Always try to work in a well ventilated area.
- Do not store mower with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow engine to cool before storing in any enclosure.

Preparing Machine for Storage

1. Repair any worn or damaged parts. Replace parts if necessary. Tighten loose hardware.
2. Remove belt shield. Clean belt and transmission area. Do not use water to clean this area. Install shield.

IMPORTANT: Avoid damage! Do not use high pressure spray when cleaning under the deck. High pressure spray may cause damage to clutch and transmission parts.

3. Clean under the deck.
4. Sharpen mower blade.
5. Paint scratched or chipped metal surfaces to prevent rust.
6. Apply light coat of engine oil to pivot and wear points to prevent rust.
7. Lubricate grease points.

Preparing Fuel and Engine For Storage

Fuel:

If you have been using stabilized fuel, add stabilized fuel to tank until the tank is full.

NOTE: Filling the fuel tank reduces the amount of air in the fuel tank and helps reduce deterioration of fuel.

If you are not using stabilized fuel:

1. Park mower in a well-ventilated area.

NOTE: Try to anticipate the last time the mower will be used for the season so very little fuel is left in the fuel tank.

2. Start mower and allow to run until it runs out of fuel.

IMPORTANT: Avoid damage! Stale fuel can produce varnish and plug carburetor components and affect engine performance.

- Add fuel conditioner or stabilizer to fresh fuel before filling tank.

3. Mix fresh fuel and fuel stabilizer in separate container. Follow stabilizer instructions for mixing.
4. Fill fuel tank with stabilized fuel.
5. Run engine for a few minutes to allow fuel mixture to circulate through carburetor.

Engine:

Engine storage procedure should be used when machine is not to be used for longer than 60 days.

1. Change engine oil and filter while engine is warm.
2. Service air filter if necessary.
3. Clean debris from engine air intake.
4. Remove spark plug. Put 30 mL (1 oz.) of clean engine oil in cylinders.
5. Install spark plug, but do not connect spark plug wire.
6. Crank the engine for approximately five seconds to allow oil to be distributed.
7. Clean the engine and engine compartment.
8. Store the mower in a dry, protected place. If machine is stored outside, put a waterproof cover over it.

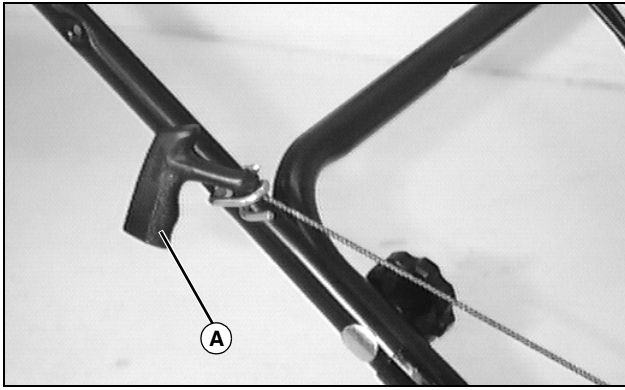
Folding Handles

IMPORTANT: Avoid damage! Avoid damage to mower control cables:

- Do not crimp cables when folding handle bars.
- Do not attempt to fold upper mower handle upward.

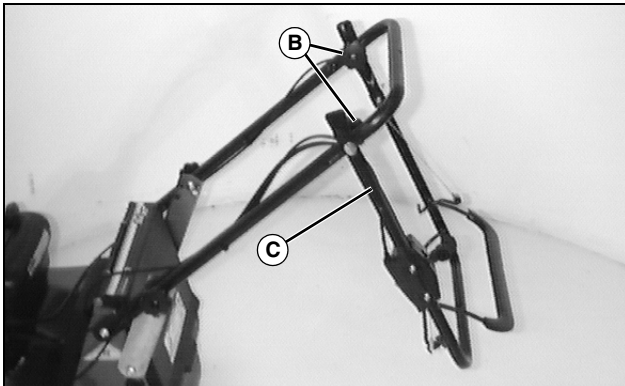
1. Remove grass bag.

STORING MACHINE



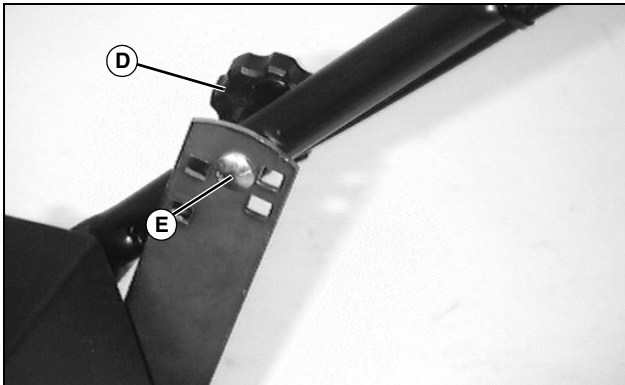
M88856

2. Remove starter handle (A) from bracket.



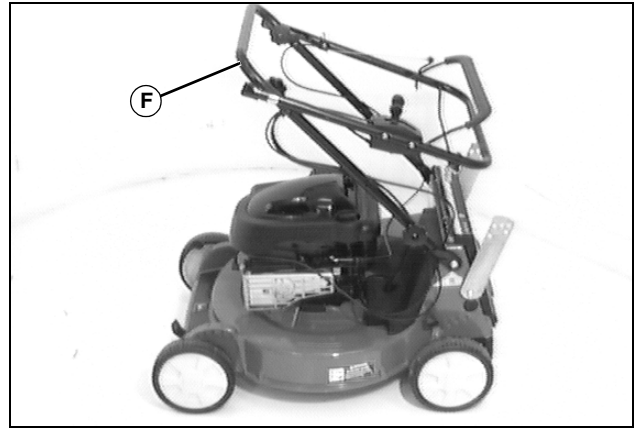
M92145

3. Loosen knob (B) 25 mm (1 in.) on each side. Carefully pivot upper handle (C) down.



M87080

4. Remove knob (D) and carriage bolt (E) from each side.



M92144

5. Carefully fold lower handle (F) forward. Guide cables inside lower handle. Do not crimp cables.
6. Install carriage bolts and knobs in handle.

Removing Mower From Storage

1. Unfold handles. Tighten knobs. Do not crimp cables.
2. Check engine oil level.
3. Connect wire to spark plug.
4. Inspect shields, safety devices and hardware.
5. Lubricate rear axle bushings.
6. Push primer bulb three times to prime engine.
7. Move throttle lever to fast position.

ASSEMBLY

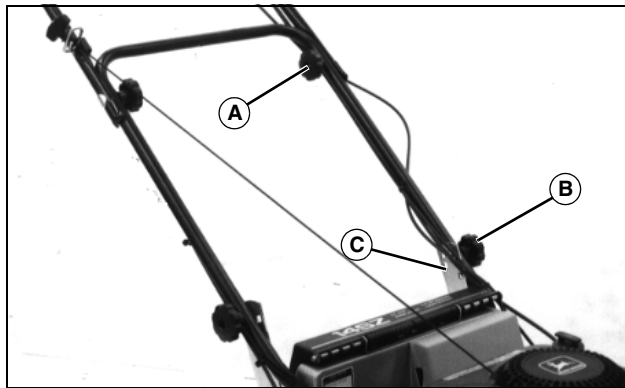
Unfold Handle

IMPORTANT: Avoid damage! Do not crimp or damage control cables.



MX7430

1. Loosen knob (A) on each side.



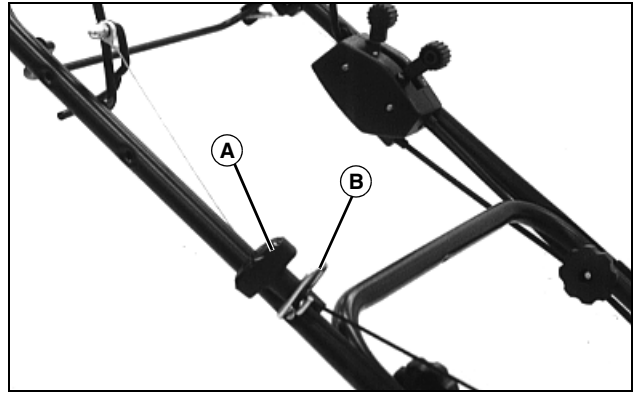
M60968

2. Remove knob (B) and bolt from each side.
3. Carefully unfold handlebar assembly.
4. Pivot upper handle to a straight position.
5. Tighten knob (A) on each side.
6. Hold handle and install bolt through square hole of bracket (C) and handle. Install knob (B) on outside of handle.
7. Repeat Step 5 on other side.

Install Starter Handle In Bracket

NOTE: Don't pull starter handle without blade control lever engaged.

When you pull starter handle, blade also turns and engine may start.



M60957

1. Pull starter handle (A) to rear and install rope in bracket (B).
2. Pivot bracket forward.

Add Engine Oil

IMPORTANT: Avoid damage! engine is shipped without oil.

You must add oil before running the engine. See Service section for correct oil application.

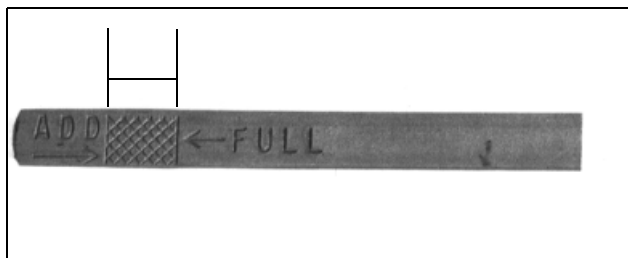
1. Park mower on a level surface and clean area around oil dipstick.



MX7423

2. Turn oil dipstick (A) 1/4 turn counterclockwise. Remove dipstick.
3. Add 0.47 L (16 oz.) oil through dipstick tube.
4. Check oil level:
 - a. Install dipstick, turn it clockwise 1/4 turn and tighten it.
 - b. Remove dipstick.

ASSEMBLY

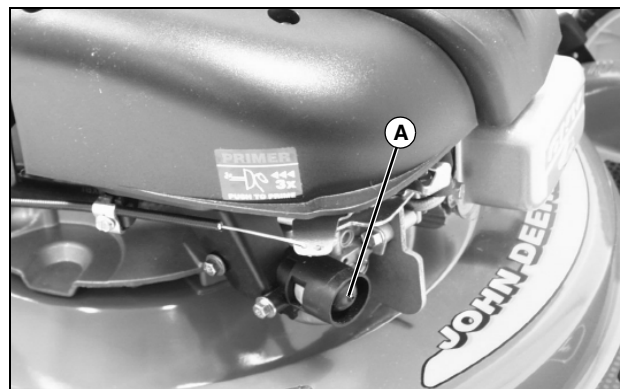


M73272

c. Check oil level: Oil should be between ADD and FULL marks on dipstick. If not, add oil.

5. Install and tighten dipstick.

6. Remove "No Oil" tag from top of engine.



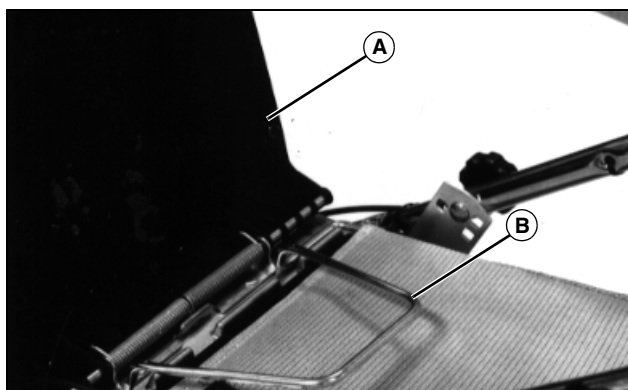
MX7422

2. Press primer bulb (A) three times to prime engine.
3. Move throttle lever to the fast position.
4. Start engine and check mower operation. (See Operating section).

Install Grass Bag



CAUTION: Avoid injury! Do not operate mower unless grass bag, chute (optional), or mulch plug (optional) is held in place by door.



M73481

1. Lift and hold door (A).
2. Grasp handle (B). Install bag.
3. Lower door to hold bag in place.

Test Mower Operation

1. Put enough fuel in tank to test mower operation.

SPECIFICATIONS

Engine

Manufacturer	Briggs & Stratton
Model Series	121602
Horsepower	4.8 kW (6.5 hp)
Cycle	4
Valve Type	Over Head Valve (OHV)
Choke	Primer Bulb
Displacement	190 cc (11.59 cu in.)
Bore & Stroke	68 x 52 mm (2.64 x 2.04 in.)
Operating Range	2900-3100 rpm
Spark Plug	John Deere M78543, Champion RC12YC
Spark Plug Gap	0.51 mm (0.02 in.)
Spark Plug Torque	20 N•m (15 lb-ft)
Starter	Recoil
Air Cleaner	Paper Element with Foam Pre-Cleaner

Capacities

Fuel Tank	1.5 L (1.6 qt)
Engine Oil	0.47 L (16 oz)
Rear Grass Bag	74 L (2.5 bu)

Machine Specifications

Deck Material	Cast Aluminum
Adjustable Handle	Standard
Blade Hardware Torque	75 N•m (55 lb-ft)
Rear Grass Bag	Standard
Side Discharge Chute	Optional
Mulching Plug	Optional
Cutting Height Range	13 - 90 mm (1/2 - 3-1/2 in.)
Number of Cutting Heights in 1/2 in. (13 mm) Steps	7
Wheel Diameter	200 mm (8 in.)
Cutting Width	53.3 cm (21 in.)
Safety System	Zone Start
Number of Travel Speeds	2
Weight	41 kg (90 lb)
Travel Speed Range	
1st Gear	3.2 kph (2 mph)
2nd Gear	5.0 kph (3 mph)

SPECIFICATIONS

Recommended Lubricants

Fuel See Filling Fuel Tank in the Service section
Engine Oil TORQ-GARD SUPREME® (SAE 30 or SAE 10W-30)
Grease John Deere MOLY HIGH TEMPERATURE EP GREASE
..... John Deere HIGH TEMPERATURE EP GREASE
..... John Deere GREASE GARD™

(Specifications and design subject to change without notice)

WARRANTY

Product Warranty

Product warranty is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual.

Engine related warranties stated in this manual refer only to emissions-related parts and components of your engine. The complete engine warranty, less emission-related parts and components, is provided separately as the "Limited Warranty for New John Deere Commercial & Consumer Equipment".

John Deere, Federal and California Emission Control System Warranty (Small Off-Road Gas Engines)

Your Warranty Rights and Obligations

The United States Environmental Protection Agency (EPA), the California Air Resources Board (CARB) and John Deere are pleased to explain the emission control system warranty on your 1995 or later small off-road equipment engine. In California, 1995 and later small off-road equipment engines must be designed, built and equipped to meet the State's stringent anti-smog standards. In other states, 1997 and later model year equipment engines must be designed, built and equipped to meet the U.S. EPA regulations for small non-road, spark ignition engines. John Deere must warrant the emission control system on your small off-road equipment engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road equipment engine.

Your emission control system may include parts such as the carburetor, fuel-injection system and ignition system. Also included may be connectors and other emission related assemblies.

Where a warrantable condition exists, John Deere will repair your small off-road equipment engine at no cost to you including diagnosis, parts and labor.

John Deere Emission Control System Warranty Coverage

In California, 1995 and later small off-road equipment engines are warranted relative to emission control parts for two years. In other states, 1997 and later model year equipment engines are warranted relative to emission control parts for two years. If any emission related part on your engine is defective, the part will be repaired or replaced by John Deere.

Owner's Warranty Responsibilities

As the small off-road equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. John Deere recommends that you retain all receipts covering maintenance on your small off-road equipment engine, but John Deere cannot deny warranty solely for lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road equipment engine owner, you should however be aware that John Deere may deny you warranty coverage if your small off-road equipment engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road equipment engine to an authorized John Deere Commercial and Consumer Equipment Retailer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact your John Deere Commercial and Consumer Equipment Retailer, or the John Deere Customer Communications Center at 1-800-537-8233.

Length Of Warranty Coverage

John Deere warrants to the initial owner and each subsequent purchaser that the small off-road equipment engine is:

- Designed, built and equipped so as to conform with all applicable regulations adopted by the California Air Resources Board (CARB) for 1995 and later equipment engines, and all applicable regulations of the United States Environmental Protection Agency (EPA) for 1997 and later equipment engines; and
- Free from defects in materials and workmanship which can cause the failure of an emission warranted part for a period of two years after the engine is delivered to the initial retail purchaser. John Deere is liable for damages to other engine components caused by the failure of a warranted part during the warranty period. If any emission related part on your engine is defective, the part will be repaired or replaced by John Deere.

Warranted Parts

Coverage under this warranty extends only to the parts listed below (the emission control system parts) to the extent these parts were present on the engine purchased.

Fuel Metering System:

- Carburetor and internal parts (or fuel injection system).
- Air/fuel ratio feedback and control system.
- Cold start enrichment system.

Air Induction System:

- Air Cleaner
- Intake manifold.

Ignition System:

- Spark plugs.
- Magneto or electronic ignition system.
- Spark advance/retard system.

Catalyst System:

- Exhaust manifold.

Miscellaneous Items Used in Above Systems

- Vacuum and temperature switches.
- Electronic controls.
- Hoses, belts, connectors and assemblies.

Since emission related parts may vary slightly from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

Warranty Service And Charges

Warranty service shall be provided during customary business hours at any authorized John Deere Commercial and Consumer Equipment Retailer. Repair or replacement of any warranted part will be performed at no charge to the owner, including diagnostic labor which leads to the determination that a warranted part is defective, if the diagnostic work is performed at an authorized John Deere Commercial and Consumer Equipment Retailer. Any parts replaced under this warranty shall become the property of John Deere.

Maintenance Warranty Coverage

a) Any warranted part that is not scheduled for replacement as required maintenance must be warranted as to defects for the warranty period. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.

b) Any warranted part that is scheduled only for regular inspection to the effect of "repair or replace as necessary" must be warranted as to defects

WARRANTY

for the warranty period. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.

c) Any warranted part which is scheduled for replacement as required maintenance must be warranted as to defects only for the period of time up to the first scheduled replacement for that part. Any such part repaired or replaced under the warranty must be warranted for the remainder of the period prior to the first scheduled replacement point for that part.

d) Normal maintenance, replacement or repair of emission control devices and systems, which are being done at the customers expense, may be performed by any repair establishment or individual; however, warranty repairs must be performed by an authorized John Deere Commercial and Consumer Equipment Retailer.

e) Any replacement part that is equivalent in performance and durability may be used in the performance of any non-warranty maintenance or repairs, and shall not reduce the warranty obligations of John Deere.

Consequential Warranty Coverage

Warranty coverage shall extend to the failure of any engine components caused by the failure of any warranted part still under warranty.

Limitations

This Emission Control System Warranty shall NOT cover any of the following:

- a) Repair or replacement required as a result of (i) misuse or neglect, (ii) improper maintenance or unapproved modifications, (iii) repairs improperly performed or replacements improperly installed, (iv) use of replacement parts or accessories not conforming to John Deere specifications which adversely affect performance and/or durability, (v) alterations or modifications not recommended or approved in writing by John Deere.
- b) Replacement parts, other services and adjustments necessary for normal maintenance.
- c) Transportation to and from the John Deere Commercial and Consumer Equipment Retailer, or service calls made by the Retailer.

Limited Liability

a) The liability of John Deere under this Emission Control System Warranty is limited solely to the remedying of defects in materials or workmanship. This warranty does not cover inconvenience or loss of use of the small off-road equipment engine or transportation of the engine to or from the John Deere Commercial And Consumer Equipment Retailer. JOHN DEERE SHALL NOT BE LIABLE FOR ANY OTHER EXPENSE, LOSS, OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL (EXCEPT AS LISTED ABOVE UNDER "COVERAGE") OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE SMALL OFF-ROAD EQUIPMENT ENGINE FOR ANY OTHER PURPOSE.

b) NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY JOHN DEERE WITH RESPECT TO THE ENGINE EXCEPT AS SPECIFICALLY SET FORTH IN THIS DOCUMENT. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS EXPRESSLY LIMITED TO THE EMISSION CONTROL SYSTEM WARRANTY TERMS SET FORTH IN THIS DOCUMENT.

c) No dealer is authorized to modify this Federal, California and John Deere Emission Control System Warranty.

Tire Warranty

John Deere warranty applies for tires available through the John Deere

parts system. For tires not available through the John Deere parts system, the tire manufacturer's warranty applicable to your machine may not apply outside the U.S. (See your John Deere dealer for specific information.)

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

TO SECURE WARRANTY SERVICE

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

FREE REPLACEMENT

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

PRO RATA ADJUSTMENT

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

THIS WARRANTY DOES NOT COVER

- A. Breakage of the container, cover, or terminals.
- B. Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.
- C. Transportation, mailing, or service call charges for warranty service.

LIMITATION OF IMPLIED WARRANTIES AND PURCHASER'S REMEDIES

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations, or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

NO DEALER WARRANTY

The selling dealer makes no warranty of its own and the dealer has no

WARRANTY

authority to make any representation or promise on behalf of John Deere,
or to modify the terms or limitations of this warranty in any way.

PRO RATA MONTHS OF ADJUSTMENT

NOTE: *If your battery is not labeled with a warranty code, it is a warranty code “B”.*

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

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JOHN DEERE QUALITY STATEMENT

John Deere Quality



John Deere equipment is more than just a purchase, it's an investment in quality. That quality goes beyond our equipment to your John Deere dealer's parts and service support. This support is needed to keep you a satisfied customer.

That's why John Deere has initiated a process to handle your questions or problems, should they arise. The following three steps will help guide you through the process.

Step 1

Refer to your operator's manual

- A. It has many illustrations and detailed information on the safe and proper operation of your equipment.
- B. It gives troubleshooting procedures, and specification information.
- C. It gives ordering information for parts catalogs, service and technical manuals.
- D. If your questions are not answered in the operator's manual, then go to Step 2.

Step 2

Contact your dealer (Call 1-800-537-8233 to locate your nearest John Deere dealer)

- A. Your John Deere dealer has the responsibility, authority, and ability to answer questions, resolve problems, and fulfill your parts and service needs.
- B. First, discuss your questions or problems with your dealer's trained parts and service staff.
- C. If the parts and service people are unable to resolve your problem, see the dealership manager or owner.
- D. If your questions or problems are not resolved by the dealer, then go to Step 3.

Step 3

Call the John Deere Customer Communications Center

- A. Your John Deere dealer is the most efficient source in addressing any concern, but if you are not able to resolve your problem after checking your operator's manual and contacting your dealer, call the Customer Communications Center.
- B. For prompt, effective service, please have the following ready before you call:
 - The name of the dealer with whom you've been working.
 - Your equipment model number.
 - Number of hours on machine (if applicable).
 - Your 13-digit serial number which you recorded on the inside front cover of this manual.
 - If the problem is with an attachment, your attachment identification number.
- C. Then call 1-800-537-8233 and our advisor will work with your dealer to investigate your concern.
