

JOHN DEERE
WORLDWIDE COMMERCIAL & CONSUMER
EQUIPMENT DIVISION

Trim and Surrounds Mower
2653B

OMTCU24603 F7

OPERATOR'S MANUAL



JOHN DEERE

⚠ WARNING: Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

California Proposition 65 Warning

North American Version
Litho in U.S.A.

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.

If you have an attachment, use the safety and operating information in the attachment operator's manual along with the machine operator's manual to operate the attachment safely and correctly.

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. A convenient index located at the end of this book will help you to find needed information quickly.

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

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

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.*

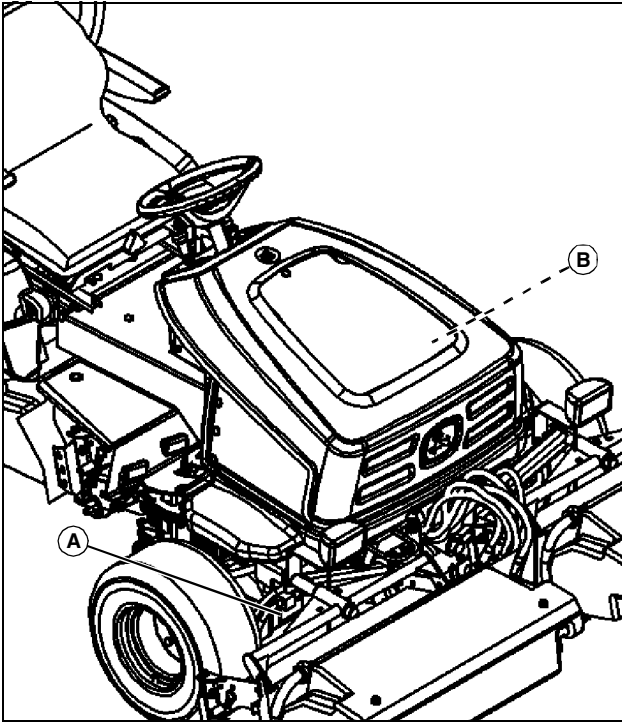
PRODUCT IDENTIFICATION

Record Identification Numbers

2653B Trim and Surrounds Mower PIN (010001-)

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 identification numbers for the product. Record the information in the spaces provided below.



MX23406

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

PRODUCT IDENTIFICATION NUMBER (A):

ENGINE SERIAL NUMBER (B):

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

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OMTCU24603 F7 - English

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.

Roll-Over Protective Structure



TCU22765

To maintain operator protection and ROPS certification:

- Replace damaged ROPS, do not repair or revise
- Any alteration of ROPS must be approved by manufacturer

Meets requirements of pending standard:

- ISO/CD 21299.3
- ROPS Maximum Machine Weight: 2500B/EH - 834Kg,

2653B - 795Kg

- For use on John Deere Mowers 2500B/EH, 2653B
- Deere & Company Moline, Illinois, U.S.A.

Warning



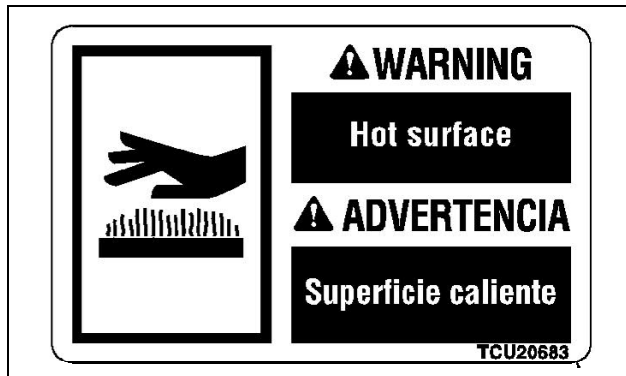
TCU22761

Use Seat Belt

- To avoid injury from crushing, always wear seat belt. Do not jump from machine.

SAFETY LABELS

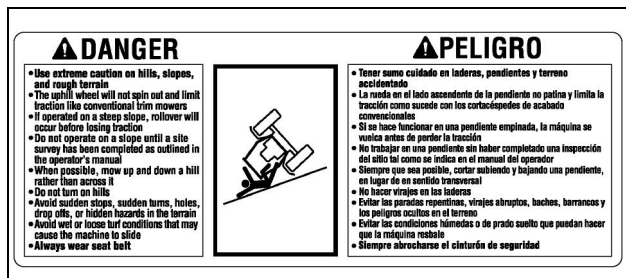
Warning



TCU20683

- Hot surface.

Danger



TCU24527A

- Use extreme caution on hills, slopes, and rough terrain.
- The uphill wheel will not spin out and limit traction like conventional trim mowers.
- If operated on a steep slope, rollover will occur before losing traction.
- Do not operate on a slope until a site survey has been completed as outlined in the operator's manual.
- When possible, mow up and down a hill rather than across it.
- Do not turn on hills.
- Avoid sudden stops, sudden turns, holes, drop offs, or hidden hazards in the terrain.
- Avoid wet or loose turf conditions that may cause the machine to slide.
- Always wear seat belt.

Caution

Help Avoid Injury



TCU24527

- Read operator's manual.
- Do not operate machine without guards, shields, and safety devices in place and working.
- Do not operate when children and/or others are around.
- Do not operate the machine unless you are trained.
- Never carry riders.
- Keep people a safe distance away.
- Before leaving machine: Stop engine - Set park brake - Remove key.

Danger



MT6517

- To avoid injury from rotating blades, stay clear of reel.
- Shut off engine before servicing, lubricating or removing cutting unit.

Danger-Poison



M97300

SAFETY LABELS



MT6268

SHIELD EYES. EXPLOSIVE GASES can cause blindness or injury.

NO

- Sparks
- Flames
- Smoking

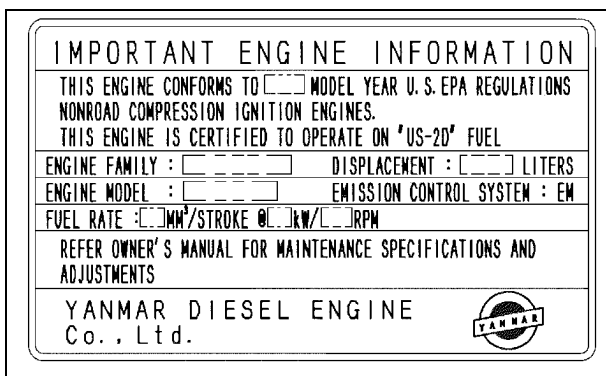
SULFURIC ACID can cause blindness or severe burns.

Keep out of reach of children. Do not tip. Keep vent caps tight and level.

FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.

Caution: For safe jump starting follow instructions in vehicle owners manual. If not available seek service assistance.

Emission Control System Certification Label



CAUTION: Avoid injury! Statutes providing severe penalties for tampering with emissions controls may apply at the user's location.

The emissions warranty described in the warranty section applies only to those engines marketed by John Deere that have been certified by the United States Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB); and used in the United States in non-road mobile (self-propelled or portable/transportable¹) equipment. The presence of an emissions label like the one shown signifies that the engine has been certified with the EPA and/or CARB. The EPA and CARB warranties only apply to new engines having the certification label affixed to the engine and sold as stated above in the geographic areas governed by the regulating agencies.

NOTE: The hp/kW rating on the engine emissions certification label specifies the gross engine hp/kW, which is flywheel power without fan. In most applications this will not be the same rating as the advertised vehicle hp/kW rating.

¹. Equipment moved at least once every 12 months.

SAFETY

Operator Training Required

- Read the operator's manual and other training material. If the operator or mechanic cannot read English, it is the owner's responsibility to explain this material to them. This publication is available in other languages.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- All operators and mechanics should be trained. The owner of the machine is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people, or property.
- Operate the machine in an open, unobstructed area under the direction of an experienced operator.
- Make sure operators are properly trained to operate on slopes and hilly terrain. Identify which slopes are safe to mow and the correct mowing procedures for operating on slopes.

Preparation

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Wear appropriate clothing including hard hat, safety glasses and hearing protection. Long hair, loose clothing or jewelry may get tangled in moving parts.
- Inspect the area where the equipment is to be used and remove all objects such as rocks, toys and wire which can be thrown by the machine.
- Use extra care when handling gasoline and other fuels. They are flammable and vapors are explosive.
 - a. Use only an approved container.
 - b. Never remove gas cap or add fuel when engine is running. Do not smoke.
 - c. Never refuel or drain the machine indoors.
- Check that the operator's presence controls, safety switches and shields are attached and functioning properly. Do not operate unless they are functioning properly.

Operating Safely

- Never run an engine in an enclosed area where

dangerous carbon monoxide fumes can collect.

- Only operate in good light, keeping away from holes and hidden hazards.
- Be sure all drives are in neutral and parking brake is engaged before starting engine. Only start engine from the operator's position. Use seat belts if provided.
- Slow down and use extra care on hillsides. Be sure to travel in the recommended direction on hillsides. For this machine, drive up and down hillsides, not across. Turf conditions can affect the machine's stability. Use caution while operating near drop-offs.
- Slow down and use caution when making turns and when changing directions on slopes.
- Never raise cutting units with reels rotating.
- Never operate without guards securely in place. Be sure all interlocks are attached, adjusted properly, and functioning properly.
- Do not change the engine governor setting or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.
- Stop on level ground, lower implements, disengage drives, engage parking brake, and shut off engine before leaving the operator's position for any reason including emptying the grasscatchers or clearing blockages.
- Stop equipment and inspect reels after striking objects or if an abnormal vibration occurs. Make necessary repairs before resuming operations.
- Keep hands and feet away from the cutting units.
- Look behind and down before backing up to be sure of a clear path.
- Never carry passengers and keep pets and bystanders away.
- Slow down and use caution when making turns and crossing roads and sidewalks. Stop reels if not mowing. Watch for traffic when operating near or crossing roadways.
- Do not operate the machine while under the influence of alcohol or drugs.
- Use care when loading or unloading the machine into or off of a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- 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.
- Keep safety labels visible when installing accessories and attachments.

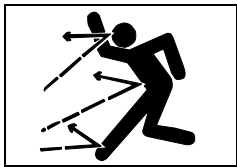
SAFETY

- Do not wear radio or music headphones. Safe service and operation require your full attention.
- When machine is left unattended, stored, or parked, lower the cutting units unless a positive mechanical lock is used.

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.

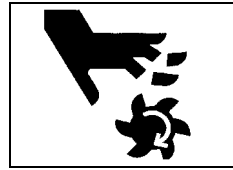
- Study mowing area. Set up a safe mowing pattern. Do not mow where traction or stability is doubtful.

- Survey all mowing sites to determine which slopes are safe for machine operation and which slopes should be maintained through other maintenance techniques.

Parking Safely

1. Stop machine on a level surface, not on a slope.
2. Disengage mower blades or any other attachments.
3. Lower attachments to the ground.
4. Lock the park brake.
5. Stop the engine.
6. Remove the key.
7. Wait for engine and all moving parts to stop before you leave the operator's seat.
8. Close fuel shut-off valve, if your machine is equipped.
9. Disconnect the negative battery cable or remove the spark plug wire(s) (for gasoline engines) before servicing

the machine.



Avoid Injury From Contacting Blades

- Rotating cutting cylinders can cut off arms and legs, and throw objects. Failure to observe safety instructions could result in serious injury or death.

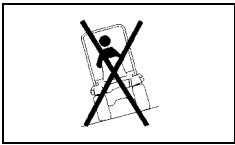
- Keep hands, feet and clothing away from rotating cutting cylinders when engine is running.
- Be alert at all times, drive forward carefully. People, especially children can move quickly into the mowing area before you know it.
- Before backing up, stop cutting cylinders and look down and behind the machine carefully, especially for children.
- Do not mow in reverse.
- Shut off cutting cylinders when you are not mowing.
- Park machine safely before leaving the operator's station for any reason including emptying the grasscatchers.
- Keep all parts of the body away from the cutting edges. Residual hydraulic pressure in the system can cause cutting cylinder rotation when the blockage is released.
- Use a long-handled brush when applying reel-sharpening compound.
- Keep bystanders away from cutting units when adjusting or servicing.
- Always wear gloves when manually rotating reel. Manually rotating one reel can cause another reel to rotate.

Protect Children

- Death or serious injury can occur when young children associate having fun with a lawn mowing machine simply because someone has given them a ride on a machine.
- Children are attracted to lawn mowing machines and mowing activities. They don't understand the dangers of rotating blades or the fact that the operator is unaware of their presence.
- Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Tragic accidents with children can occur if the operator is not alert to the presence of children, especially when a child approaches a machine from behind. Before and while backing up, stop mower blades and look down and behind the machine carefully, especially for children.

SAFETY

- Never carry children on a machine or attachment, even with the blades off. Do not tow children in a cart or trailer. They can fall off and be seriously injured or interfere with safe machine operation.
- Never use the machine as a recreational vehicle or to entertain children.
- Never allow children or an untrained person operate the machine. Instruct all operators not to give children a ride on the machine or in an attachment.
- 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.
- Stay alert to the presence of children. Never assume that children will remain where you last saw them. Turn the machine off if a child enters the work area.



Avoid Tipping

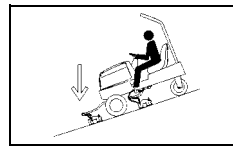
Identify Slopes for Safe Operation

- Establish your own special procedures and rules for operating on slopes. These procedure must include a survey of all mowing sites to determine which slopes are safe for machine operation. Always use common sense and good judgement when performing this survey.
- Lay a straight piece of sturdy lumber 1.2 m (4 ft) long on the slope and measure the angle of the slope with an angle indicator or protractor level.
- Never mow or operate machine on slope angles greater than 25°.
- Exceeding the maximum recommended slope angle of 25° increases the risk of rollover accidents that can result in serious injury or death.
- Always consider potential turf conditions and slope angles when determining the risk of loss-of-control and tip-over accidents.
- On slope angles of 15° or less the risk of rollover is low, but as the slope angle increases to the John Deere recommended maximum of 25° the risk increases to a moderate level.

Operate Safely on Slopes

- Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution.
- Use lower speeds while mowing and operating on slopes.
- If you feel uneasy on a hillside, do not mow it.
- Mow up and down slopes, not across.

- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Choose a low ground speed so you will not have to stop or shift while on a slope.
- Rollover can occur before the tires lose traction.
- Do not mow or operate machine on wet grass. Tires may lose traction. Tires may lose traction on slopes even though the brakes are functioning properly.
- Avoid starting, stopping or turning on a slope. If the tires lose traction, disengage the reels and proceed slowly, straight down the slope.
- Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.
- Do not mow near drop-offs, ditches, embankments, or bodies of water. The machine could suddenly roll over if a wheel goes over the edge or the edge caves in. Leave a safety area between the machine and any hazard.
- Drive machine very slowly and avoid quick stops when cutting units are removed.



- Keep cutting units lowered to ground while operating on slopes. Raising cutting units while operating on slopes can cause machine to

become unstable.

- Transport machine with cutting units lowered to improve stability.



Use Seat Belt Properly

- Use a seat belt when you operate with a Roll-Over Protective Structure (ROPS) to minimize chance of injury from an accident, such as an overturn.
- Never modify, disassemble or attempt to repair the seat belt.
- Replace entire seat belt if mounting hardware, buckle, belt, or retractor show signs of damage.
- Inspect seat belt and mounting hardware at least once a year. Look for signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace only with John Deere-approved replacement parts.
- Layers of heavy clothing can interfere with proper positioning of the seat belt and can reduce the effectiveness of the seat belt.

SAFETY

Keep ROPS Installed Properly

- Never operate the machine without the ROPS installed.
- Make certain all parts of the ROPS are installed correctly if the ROPS structure is loosened or removed for any reason. All ROPS hardware should be tightened to the proper torque per manufacturer's recommendations.
- Any alteration of the ROPS must be approved by the manufacturer. The protection provided by the ROPS will be impaired if the ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting.
- The seat is part of the ROPS safety zone. Replace only with John Deere-approved seat.
- Never attempt to repair a damaged or altered ROPS. It must be replaced to maintain the manufacturer's certification of the structure.

Keep Riders Off

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

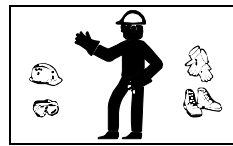
Driving Safely on Public Roads

Avoid personal injury or death resulting from a collision with another vehicle on public roads:

- Use safety lights and devices. Slow moving machines when driven on public roads are hard to see, especially at night.
- Whenever driving on public roads, use flashing warning lights and turn signals according to local regulations. Extra flashing warning lights may need to be installed.

Checking Wheel Hardware

- A serious accident could occur causing serious injury if wheel hardware is not tight.
- Check wheel hardware tightness often during the first 100 hours of operation.
- Wheel hardware must be tightened to specified torque using the proper procedure anytime it is loosened.



Wear Appropriate Clothing

- Always wear safety goggles, or safety glasses with side shields, and a hard hat 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.



Maintenance and Storage

- Never operate machine in a closed area where dangerous carbon monoxide fumes can collect.
- Disengage drives, lower implement, lock parking brake, stop engine and remove key or disconnect spark plug (for gas engines). Wait for all movement to stop before adjusting, cleaning or repairing.
- Clean grass and debris from cutting units, drives, mufflers, and engine to help prevent fires. Clean up oil or fuel spillage.
- Let engine cool before storing and do not store near flame.
- Shut off fuel while storing or transporting. Do not store fuel near flames or drain indoors.
- Park machine on level ground. Never allow untrained personnel to service machine. Understand service procedure before doing work.
- Use jack stands or lock service latches to support components when required. Securely support any machine elements that must be raised for service work.
- Before servicing machine or attachment, carefully release pressure from any components with stored energy, such as hydraulic components or springs.
- Release hydraulic pressure by lowering attachment or cutting units to the ground or to a mechanical stop and move hydraulic control levers back and forth.
- Disconnect battery or remove spark plug (for gas engines) before making any repairs. Disconnect the negative terminal first and the positive last. Reconnect positive first and negative last.
- Use care when checking reels. Wear gloves, and use caution when servicing them.
- Keep hands, feet, clothing, jewelry and long hair away

SAFETY

from moving parts. If possible, do not make adjustments with the engine running.

- Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from battery. Wear protective clothing and use insulated tools.
- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Check brake operation frequently. Adjust and service as required.
- Be careful during adjustment of the machine to prevent entrapment of the fingers between moving blades and fixed parts of the machine.



Avoid High Pressure Fluids

- Hydraulic hoses and lines can fail due to physical damage, kinks, age, and exposure. Check hoses and lines regularly. Replace damaged hoses

and lines.

- Hydraulic fluid connections can loosen due to physical damage and vibration. Check connections regularly. Tighten loose connections.
- Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
- Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A. Information may be obtained in the United States and Canada only by calling 1-800-822-8262.

Prevent Fires

- Machine fires and structure fires can occur if a machine is stored before allowing it to cool, or if debris is not removed from around the engine and muffler, or if stored near combustible materials.
- 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.

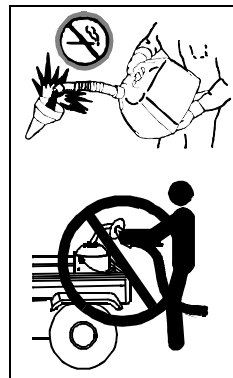
- Always shut off fuel when storing or transporting machine, if the machine has a fuel shutoff.
- Do not store machine near an open flame or source of ignition, such as a water heater or furnace.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.



Tire Safety

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

- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.
- Check tires for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.
- Make sure all tires are inflated to the recommended pressure, especially when operating on slopes. Low pressure can cause machine to become unstable on slopes.



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.

SAFETY

- 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.

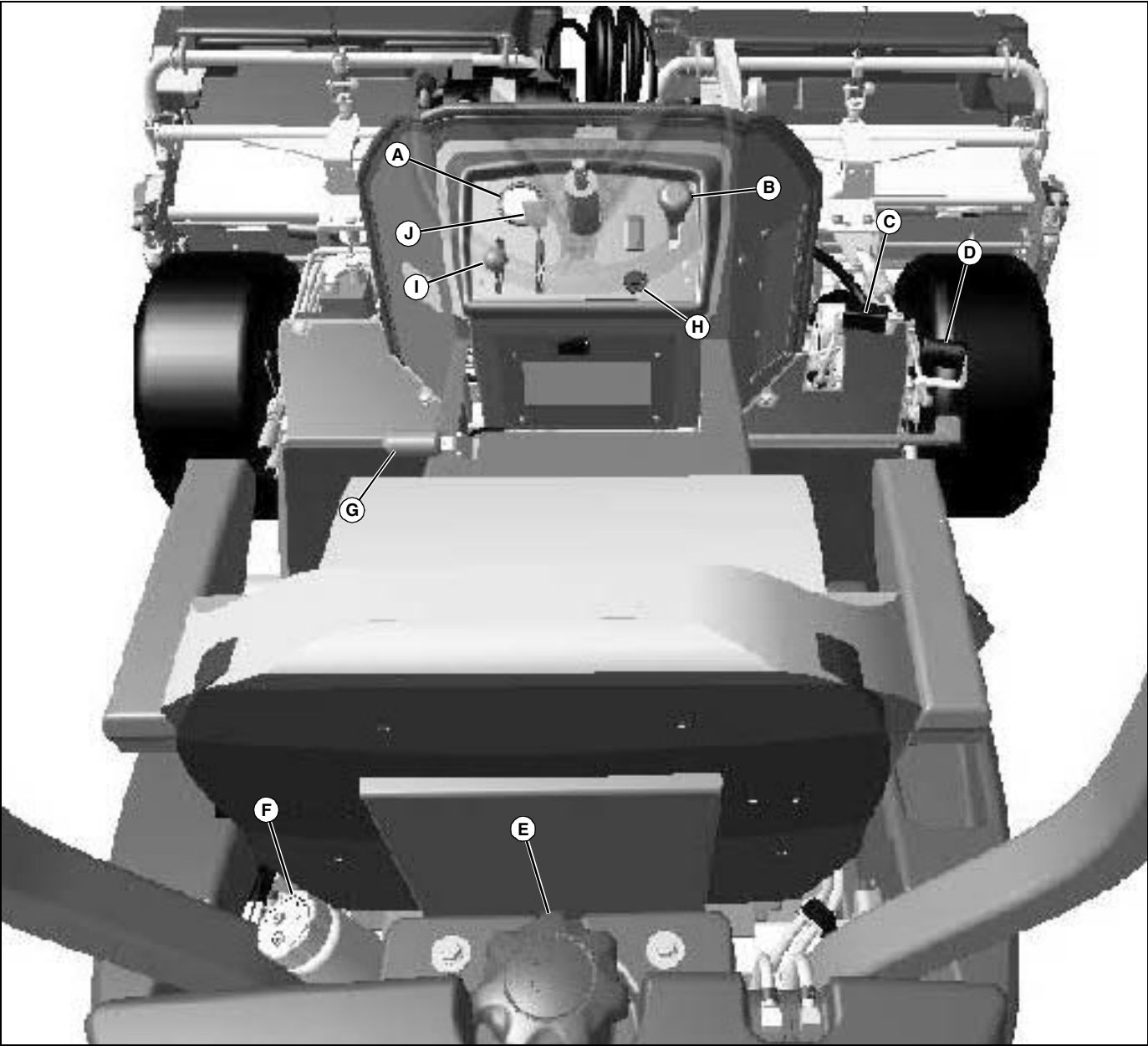
Handling Waste Product and Chemicals

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.
- 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.

OPERATING CONTROLS

Operator Controls



MX23524

Key	Description	Key	Description
A	Indicator Light-Hour Meter Module	H	Key
B	Raise-Lower Lever	I	Throttle Lever
C	Forward Travel Pedal	J	Mow-Transport Lever
D	Reverse Travel Pedal		
E	Fuel Tank Fill Cap		
F	Hydraulic Oil Reservoir Fill Cap		
G	Park Brake Lever		

OPERATING - MACHINE

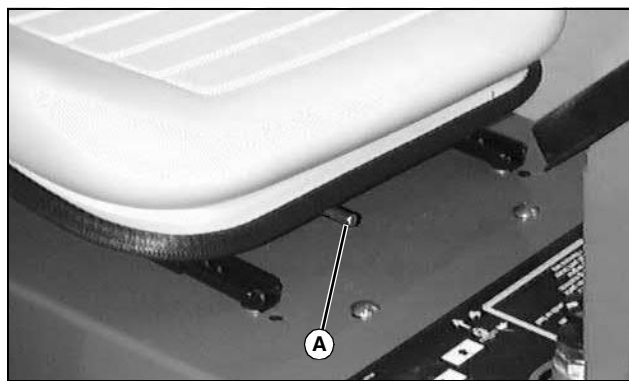
Daily Operating Checklist

- ☐ Test safety systems.
- ☐ Check tire pressure.
- ☐ Check fuel level.
- ☐ Check engine oil level.
- ☐ Check hydraulic oil level.
- ☐ Clean air intake screen.
- ☐ Check area below machine for leaks.
- ☐ Clean debris from machine, engine compartment, linkages and controls.
- ☐ Clean debris from engine, especially air intake screens.
- ☐ Check for loose, missing, or damaged parts.
- ☐ Check Air Restriction Indicator.

Adjusting Standard Seat



CAUTION: Avoid injury! Installing a seat other than one designed for the machine can cause unsafe operating conditions. The seat can become loose and fail. Only install seat designed and approved for the machine by the manufacturer.



M78109

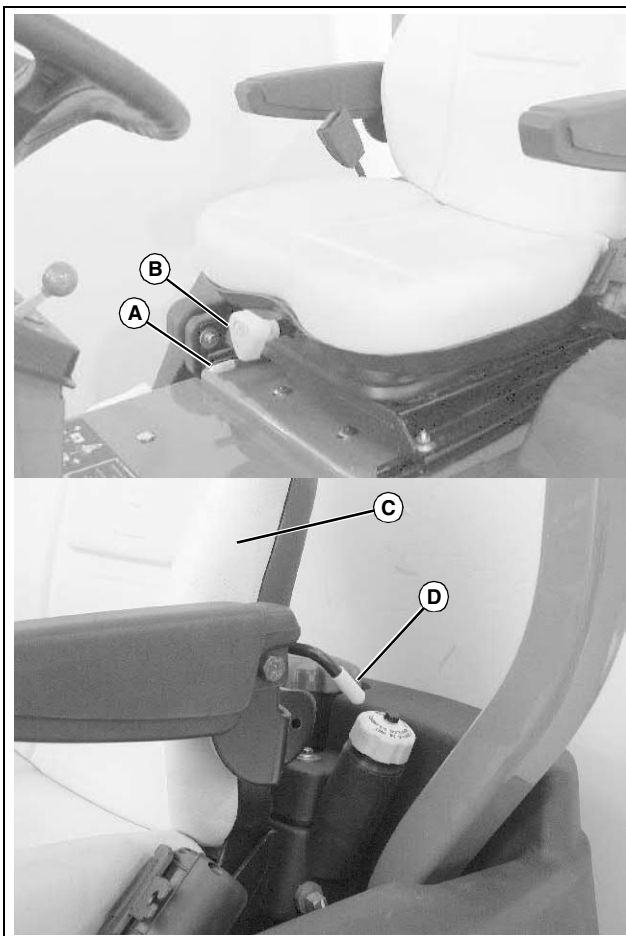
1. Push lever (A) to the left.
2. Slide seat forward or backward to desired position.
3. Release lever.

Adjusting Deluxe Seat

Select Seat Position



CAUTION: Avoid injury! Installing a seat other than one designed for the machine can cause unsafe operating conditions. The seat can become loose and fail. Only install seat designed and approved for the machine by the manufacturer.



MX23356, MX23357

1. Move lever (A) to the left.
2. Slide seat forward or backward to desired position.
3. Release lever to lock seat in position. Make sure all controls can be easily accessed.

Adjust Ride Comfort

Adjust seat spring tension knob (B) to the weight of the operator, so that the seat "floats" in the center of its travel as the machine traverses rough terrain.

1. Adjust seat suspension.
 - Turn seat spring tension knob (B) to the right

OPERATING - MACHINE

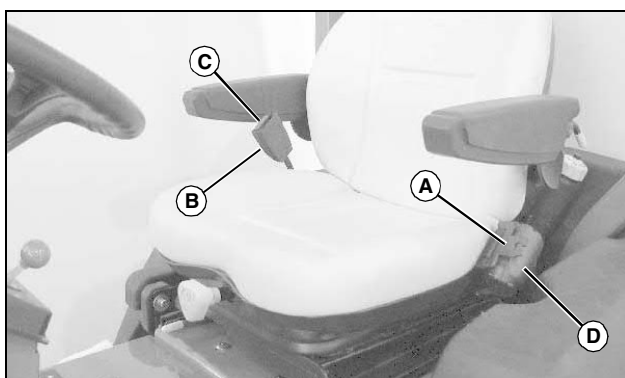
(clockwise) for a firmer ride.

- Gently pull forward or backward on the seat back (C) and lift lever (D) to lock in desired position and release.

Using Seat Belt

CAUTION: Avoid injury! Always wear seat belt when operating machine with a Roll-Over Protective Structure (ROPS). Do not jump from machine if machine tips.

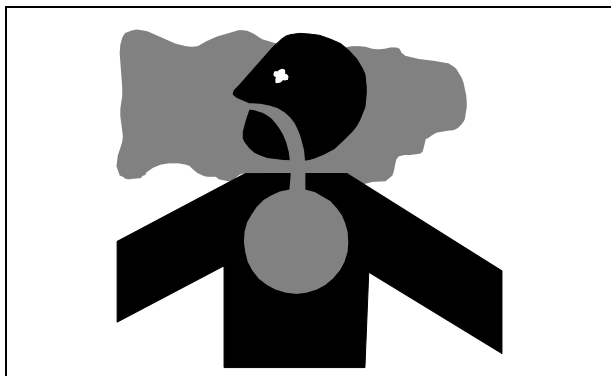
1. Sit on seat.



MX23356

2. Insert seat belt buckle (A) into latch assembly (B) until a click is heard and it locks into the latch assembly.
3. Attempt to pull seat belt buckle from latch assembly to verify it has locked into place.
4. Depress release button (C) to unlock seat belt buckle from latch assembly. Allow seat belt to retract into retractor assembly (D).

Testing Safety Systems



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.**

The safety systems installed on your machine should be checked before each machine use. Be sure you have read the machine operator manual and are completely familiar with the operation of the machine before performing these safety system checks.

Use the following checkout procedures to check for normal operation of machine.

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

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

Checking Ignition Interlock Switches

Use the following procedure to check correct operation of the ignition interlock system. Do not operate the machine with a faulty system.

Test 1

1. Sit on the seat.
2. Lock park brake.
3. Move travel pedals to the neutral position.
4. Move mow-transport lever to the mow position.
5. Turn key to the START position. Starter must not engage.
6. Turn key to the OFF position.
7. Move mow-transport lever to the transport position.
8. Turn key to the START position. Starter should engage.

Test 2

1. Sit on the seat.
2. Lock park brake.
3. Move mow-transport lever to the transport position.

OPERATING - MACHINE

4. Move travel pedals out of the neutral position.
5. Turn key to the START position. Starter must not engage.
6. Turn key to the OFF position.
7. Move travel pedals to the neutral position.
8. Turn key to the START position. Starter should engage.

Test 3

1. Sit on the seat.
2. Move mow-transport lever to the transport position.
3. Unlock park brake.
4. Move travel pedals to the neutral position.
5. Turn key to the START position. Starter must not engage.
6. Turn key to the OFF position.
7. Lock park brake.
8. Turn key to the START position. Starter should engage.

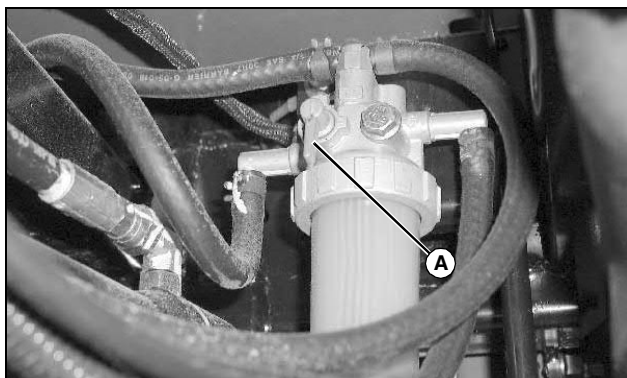
Test 4

1. Sit on the seat.
2. Lock park brake.
3. Move mow-transport lever to the transport position.
4. Move travel pedals to the neutral position.
5. Start engine.
6. Unlock park brake.
7. Rise off of seat. Engine must stop running.

Using Fuel Shut-Off Valve

IMPORTANT: Avoid damage! Never attempt to start engine with the fuel shut-off valve in the off position.

1. Locate fuel filter sediment bowl assembly underneath left side of machine near hydraulic tank.



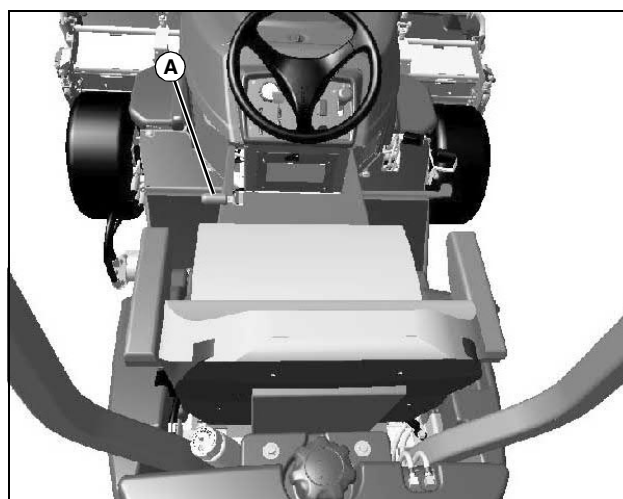
MX23353

Picture Note: Fuel shut-off valve shown in the open

position

- Fuel supply is turned on when fuel shut-off valve is in the "O" (OPEN) position as shown.
 - Fuel supply is turned off when fuel shut-off valve is in the "C" (CLOSED) position.
2. Place the fuel shut-off valve in the full OPEN position:
 - During normal operation.
 3. Place the fuel shut-off valve in the full CLOSED position:
 - When performing any type of engine service.
 - During transport.
 - During periods of extended storage.

Using Park Brake

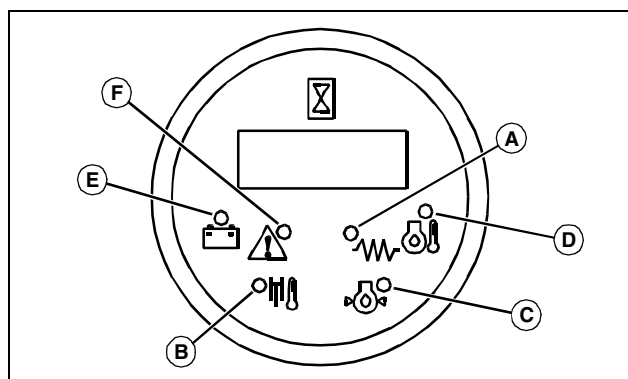


MX23525

- Lock park brake by pulling park brake lever (A) toward operator.
- Unlock park brake by pushing park brake lever away from operator.

OPERATING - MACHINE

Checking Indicator Lights



• **Glow Plug Indicator (A)** (Diesel Models) will glow when key switch is turned to the run position. After approximately 3 seconds, the light will go out.

• **Hydraulic Oil Temperature Indicator (B)** will glow when hydraulic oil temperature is high. Stop all hydraulic functions immediately. Let hydraulic oil cool by allowing engine to idle under a no-load situation. This keeps the oil flowing through the oil cooler and cools the oil. Check oil level and make sure oil cooler coils are clean. Continued operation may cause higher temperatures, resulting in damage.

• **Engine Oil Pressure Indicator (C)** will glow when engine oil pressure is low. If lamp glows when engine is running, stop engine immediately. See your John Deere distributor.

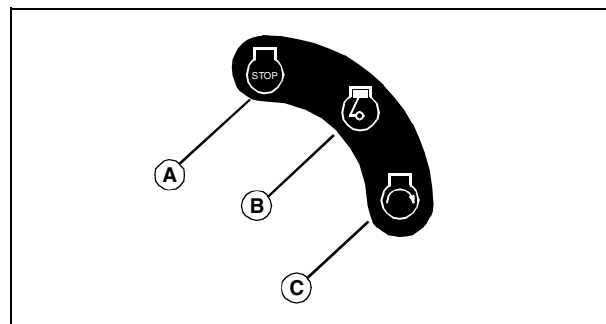
• **Engine Coolant Temperature Indicator (D)** will glow if engine temperature becomes excessive. Stop engine and determine cause.

• **Battery Discharge Indicator (E)** will glow when alternator is not producing adequate current. Stop engine and determine cause.

Using Key Switch

Key Switch Positions

NOTE: To help prevent engine backfiring, the engine will continue to run approximately 2 seconds after key switch is turned to the STOP position. After engine has stopped, an approximate 2-second delay will prevent the engine from immediately being restarted.



• STOP position (A) - shut engine off.

• RUN position (B) - the engine oil pressure indicator light and battery indicator light should come on. Glow plug indicator light will illuminate for approximately 3 seconds and then go out. Engine is now ready to start.

• START position (C) - Starter should engage and start the engine. After engine starts, release the key to the RUN position. All indicator lights should go out.

Using Glow Plug

NOTE: Glow plugs preheat the combustion chamber for better starting performance.

1. Turn key switch to the RUN position.
 - The glow plug indicator light should illuminate.
 - The indicator light should go out approximately 3 seconds after the key switch is turned to the RUN position.
2. Turn key switch to the START position to start the engine.



Suggest:

If the above button click is invalid.

Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

OPERATING - MACHINE

Starting the Diesel Engine



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.**

IMPORTANT: Avoid damage! Never attempt to start engine with the fuel shut-off valve in the off position.

NOTE: Mower has an ignition interlock switch. Engine will not start unless:

- **Park brake is locked.**
- **Mow-transport lever is in transport position.**
- **Travel pedals are in neutral.**

1. Lock park brake by pulling park brake lever toward operator.
2. Move mow-transport lever to the transport position.
3. Move throttle lever to half speed position.
4. Turn key to RUN position and wait for glow plug indicator light to go out.

IMPORTANT: Avoid damage! Starter may be damaged if starter is operated for more than 20 seconds at a time:

- **Wait two minutes before trying again if engine does not start.**

5. Turn key to the START position.

When key is in START position, the following indicator lights in the warning light-hour meter module should come on:

- Engine Oil Pressure
- Hydraulic Oil Temperature
- Battery Discharge Indicator
- Engine Coolant Temperature
- Glow Plug Indicator

6. When engine starts, release key to the RUN position.

Warming and Idling Engine

Warming Engine:

- Run engine at half speed for 2 to 3 minutes.

Idling Engine:

- The engine needs a large volume of air to keep cool. Keep grille and screens clean.
- Avoid unnecessary engine idling.

Using Throttle Lever

IMPORTANT: Avoid damage! For best performance always operate engine at full speed while mowing.

- Push lever forward against stop to operate engine at fast idle.
- Pull lever downward against stop to operate at slow idle. Slow engine to idle before shutting off ignition.

Stopping Engine

1. Move throttle lever down to slow position. Let engine idle before stopping.
2. Lock park brake.
3. Turn key to the off position.
4. Remove the key.

Using Hydrostatic Transmission

1. Unlock park brake.
2. Move mow-transport lever to the transport position.
3. Pull raise-lower lever rearward to raise cutting units.
4. Move throttle lever forward to fast idle position.

Using Travel Pedals

NOTE: The travel pedals are pressure sensitive. The farther the pedals are depressed, the faster the machine will travel.

1. To travel forward, depress forward travel pedal. Forward travel speed is 0-12.8 km/h (0-8 m.p.h.).
2. Remove foot from pedal to stop mower.

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