

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

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**Mower**  
**8000 E-Cut Hybrid**

OMTCU23701 K9

**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

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## 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

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## Record Identification Numbers

### 8000 E-Cut Hybrid 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.

DATE OF PURCHASE:

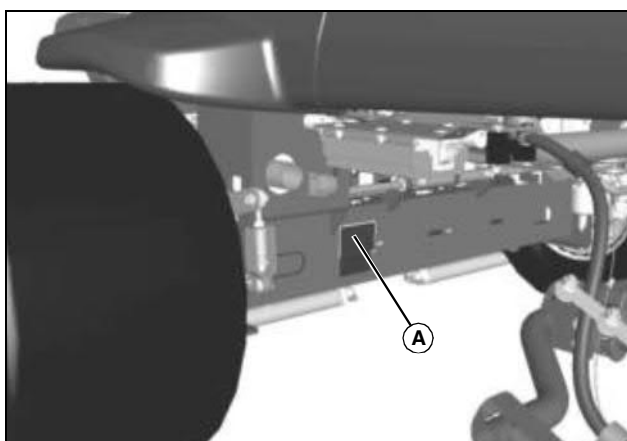
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DEALER NAME:

\_\_\_\_\_

DEALER PHONE:

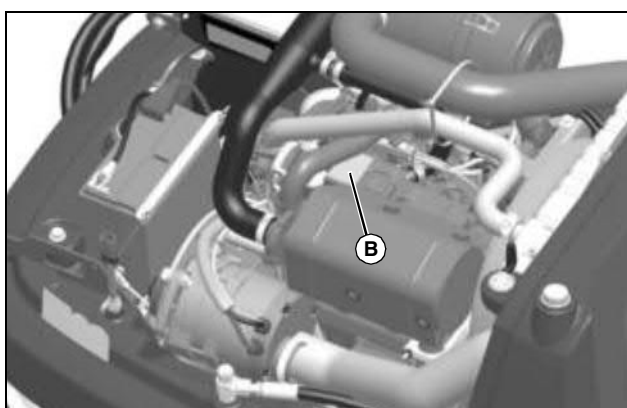
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MX41587

PRODUCT IDENTIFICATION NUMBER (A):

-----



MX41588

ENGINE SERIAL NUMBER (B):

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**<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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Original Instruction

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John Deere Worldwide Commercial and Consumer Equipment Division

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Previous Editions

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OMTCU23701 K9 - English

# SAFETY LABELS

## Safety Label Location

**A**

**B**

**C**

**D**

**E**

**F**

**G**

**H**

**I**

**CAUTION**  
HELP AVOID INJURY

- Read operator's manual
- Do not operate the machine without guards, shields, and safety devices in place and working
- Do not operate this machine when children and/or others are around
- Do not operate the machine unless you are trained
- Look behind before backing
- Keep people at safe distance away
- Stay clear of power driven parts
- Do not operate where machine could tip
- Never carry riders
- Before leaving machine:
  - Stop engine - Set park brake - Remove key

**ATTENTION**  
EVITER LES BLESSURES

- Lire le livre d'entretien
- Ne pas utiliser la machine sans que les protections et dispositifs de sécurité soient en place et en bon état de fonctionnement
- Ne pas utiliser cette machine à proximité d'enfants ou d'autres personnes
- Ne pas utiliser la machine sans avoir été formé
- Regarder derrière soi avant de reculer
- Ne laisser personne à l'arrière
- Se tenir très en arrière des pièces extérieures
- Ne pas utiliser lorsque la machine risque de basculer
- Ne jamais prendre de passager
- Avant de quitter la machine:
  - Arrêter le moteur - Serrer le frein de stationnement - Retirer la clé

**ESTRUCTURA PROTECTORA CONTRA VUELCOS**  
Para mantener la protección del operador y la certificación de la ROPS:

- Sustituir una ROPS dañada; no repararla ni modificarla
- Toda modificación de una ROPS deberá contar con la aprobación del fabricante

Satisface los requisitos de la norma con aprobación pendiente:  
ISO/CD 21299.3  
Peso máximo de máquina con ROPS:  
1290 kg

Para uso en cortacéspedes John Deere series 7000/8000  
Deere & Company  
Moline, Illinois, EE.UU.

**ROLL-OVER PROTECTIVE STRUCTURE**  
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:  
1290 Kg

For use on John Deere 7000/8000 Series Mowers  
Deere & Company  
Moline, Illinois, U.S.A.

**CAUTION**  
Prehended equipment in hot areas may cause equipment or loss of footing.  
Wear suitable hearing protection.

**ATENCIÓN**  
La exposición prolongada a ruidos excesivos puede dañar la audición.  
Usar protección adecuada para el oído.

**WARNING** **ADVERTENCIA**  
Operation of This Equipment May Create Sparks That Can Start Fires Around Dry Vegetation. A Spark Arrestor May be Required. The Operator Should Contact Local Fire Agencies for Laws or Regulations Relating to Fire Prevention Requirements.

El uso de este equipo puede crear chispas capaces de iniciar incendios en vegetación seca. Podría ser necesario usar un parachispas. El operador deberá comunicarse con cuerpos de bomberos locales para informarse de leyes o reglamentos relacionados con los requisitos exigidos para la prevención de incendios.

TCU26800

**DANGER** **PELIGRO**

- Use extreme caution on hills, slopes, and rough terrain
- The operator must not get out and land traction like conventional tractors
- 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!

**PELIGRO**

- Tener mucho cuidado en laderas, pendientes y terrenos accidentados
- La salida en el lado opuesto de la pendiente no permite ni evita la tracción como sucede con los tractores de tracción convencional
- Si se hace funcionar en una pendiente empinada, la máquina se volcará antes de perder la tracción
- No trabajar en una pendiente sin haber completado una inspección del sitio tal como se indica en el manual del operador
- Siempre que sea posible, cortar subiendo y bajando una pendiente, en lugar de en sentido transversal
- No hacer virajes en las laderas
- Evitar las paradas repentinas, virajes abruptos, frenos, frenazos y los peligros ocultos en el terreno
- Evitar las condiciones húmedas o de suelo suelto que puedan hacer que la máquina resbale
- Siempre abrocharse el cinturón de seguridad

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

**PELIGRO**  
Para evitar sufrir lesiones causadas por las cuchillas, mantenerse alejado del molinete. Apagar el motor antes de dar mantenimiento, lubricar o retirar la unidad de corte.

**USE SEAT BELT**  
ABROCHARSE EL CINTURÓN DE SEGURIDAD

**PELIGRO**  
Para evitar las lesiones o la muerte por ser aplastado por la máquina, abrocharse siempre el cinturón de seguridad. No saltar de la máquina.

MX41589

Picture Note: Use label number listed in table below to locate complete text of safety label message following this illustration.

- A - CAUTION TCU23845
- B - DANGER POISON M97300
- C - WARNING TCU27738
- D - ROPS PROTECTION TCU27487 (Spanish)

- E - ROPS PROTECTION TCU27485 (English)
- F - DANGER TCU22761
- G - DANGER TCU20639
- H - DANGER TCU25613
- I - WARNING TCU26800

# 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.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

### DANGER-POISON M93700



M93700



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.

### CAUTION TCU23844



TCU23844

TCU23844

# SAFETY LABELS

## HELP AVOID INJURY

- Read operator's manual.
- Do not operate the machine without guards, shields, and safety devices in place and working.
- Do not operate the machine when children and/or others are around.
- Do not operate the machine unless you are trained.
- Look behind before backing.
- Keep people a safe distance away.
- Stay clear of power driven parts.
- Do not operate where machine could tip.
- Never carry riders.
- Before leaving machine
  - Stop engine
  - Set park brake
  - Remove key

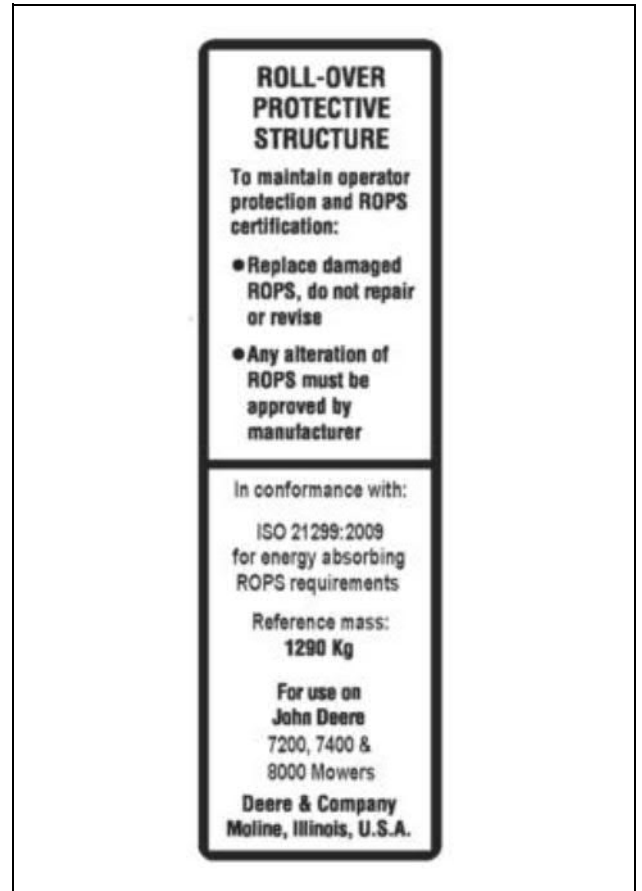
## DANGER MT6517



MT6517

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

## ROLL-OVER PROTECTIVE STRUCTURE TCU27485



TCU27485

### To maintain operator protection and ROPS certification:

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

### In conformance with:

- ISO 21299.2009
- Reference mass: 1290Kg
- For use on John Deere 7000/8000 Series Mowers
- Deere & Company Moline, Illinois, U.S.A.

# SAFETY LABELS

## CAUTION TCU27738



TCU27738

- Prolonged exposure to loud noise can cause impairment or loss of hearing.
- Wear suitable hearing protection.

## DANGER TCU22761



TCU22761

### Use Seat Belt

- To avoid injury from crushing, always wear seat belt. Do

not jump from machine.

## DANGER TCU25613



TCU25613

- 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.

## WARNING TCU26800

### SPARK ARRESTOR

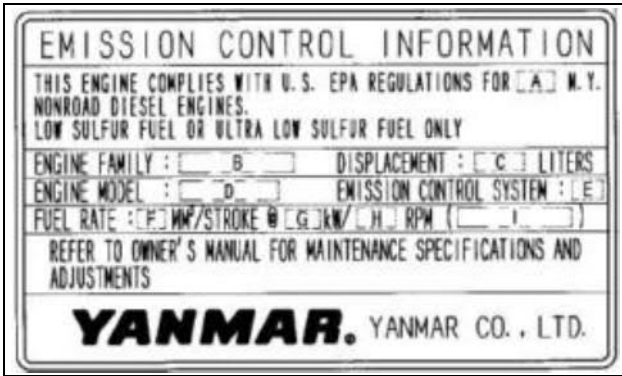


TCU26800

Operation of This Equipment May Create Sparks That Can Start Fires Around Dry Vegetation. A Spark Arrestor May Be Required. The Operator Should Contact Local Fire Agencies for Laws or Regulations Relating to Fire Prevention Requirements.

# SAFETY LABELS

## 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/transportable<sup>1</sup>) 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.**

## Certification

Your product has been certified for compliance with American National Standards Institute B-71.4, Safety Specifications for Commercial Turf care Equipment.

<sup>1</sup> Equipment moved at least once every 12 months.

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# SAFETY

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## 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 while engaged.
- 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 cutting units 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 cutting units 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

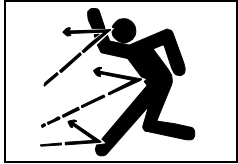
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# SAFETY

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attachments.

- 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.



## 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 or other stored energy source 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 if reels are operated hydraulically.

## Protect Children

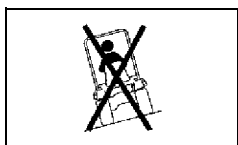
- Death or serious injury can occur when young children associate having fun with a lawn mowing machine simply because someone has given them a ride on a machine.
- Children are attracted to lawn mowing machines and mowing activities. They don't understand the dangers of rotating blades or the fact that 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.
- 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 to 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

# SAFETY

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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

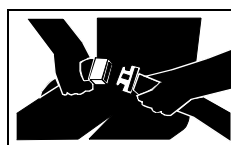
- Establish your own special procedures and rules for operating on slopes. These procedure must include a survey of all mowing sites to determine which slopes are safe for machine operation. Always use common sense and good judgement when performing this survey.
- Lay a straight piece of sturdy lumber 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 cutting units 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.

## 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.

# SAFETY

- 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.

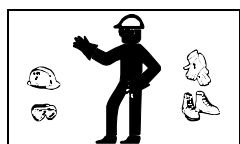
## Driving Safely on Public Roads

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 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 before making any repairs. Disconnect the negative terminal first and the positive last. Reconnect positive first and negative last.
- Use care when checking blades. Wear gloves, and use caution when servicing them.
- Keep hands, feet, clothing, jewelry and long hair away 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.
- Never straighten or weld blades.
- Only replace blades.

# SAFETY



## 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, if debris is not removed from critical areas of the machine, or if machine is stored near combustible materials.
- Remove grass and debris completely from engine compartment and muffler area, and from on top of the mower deck, before and after operating machine, especially after mowing or mulching in dry conditions.
- Empty any grasscatcher bags or containers 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.

## Using a Spark Arrestor

The engine in this machine is not equipped with a spark arrestor muffler. The California Public Resources Code, section 4442.5 provides as follows:

No person shall sell, offer for sale, lease, or rent to any person any internal combustion engine subject to Section 4442 or 4443, and not subject to Section 13005 of the Health and Safety Code, unless the person provides a written notice to the purchaser or bailee, at the time of sale or at the time of entering into the lease or rental contract, stating that it is a violation of Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrestor, as defined in Section 4442, maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443. Cal. Pub. Res. Code 4442.5.

Other states or jurisdictions 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.

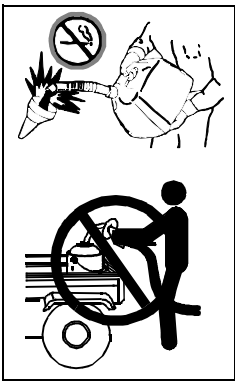


## Tire Safety

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.

# SAFETY



## Handling Fuel Safely

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

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container. Use only non-metal, portable fuel containers approved by

the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM). If using a funnel, make sure it is plastic and has no screen or filter.

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

and batteries, can harm the environment and people:

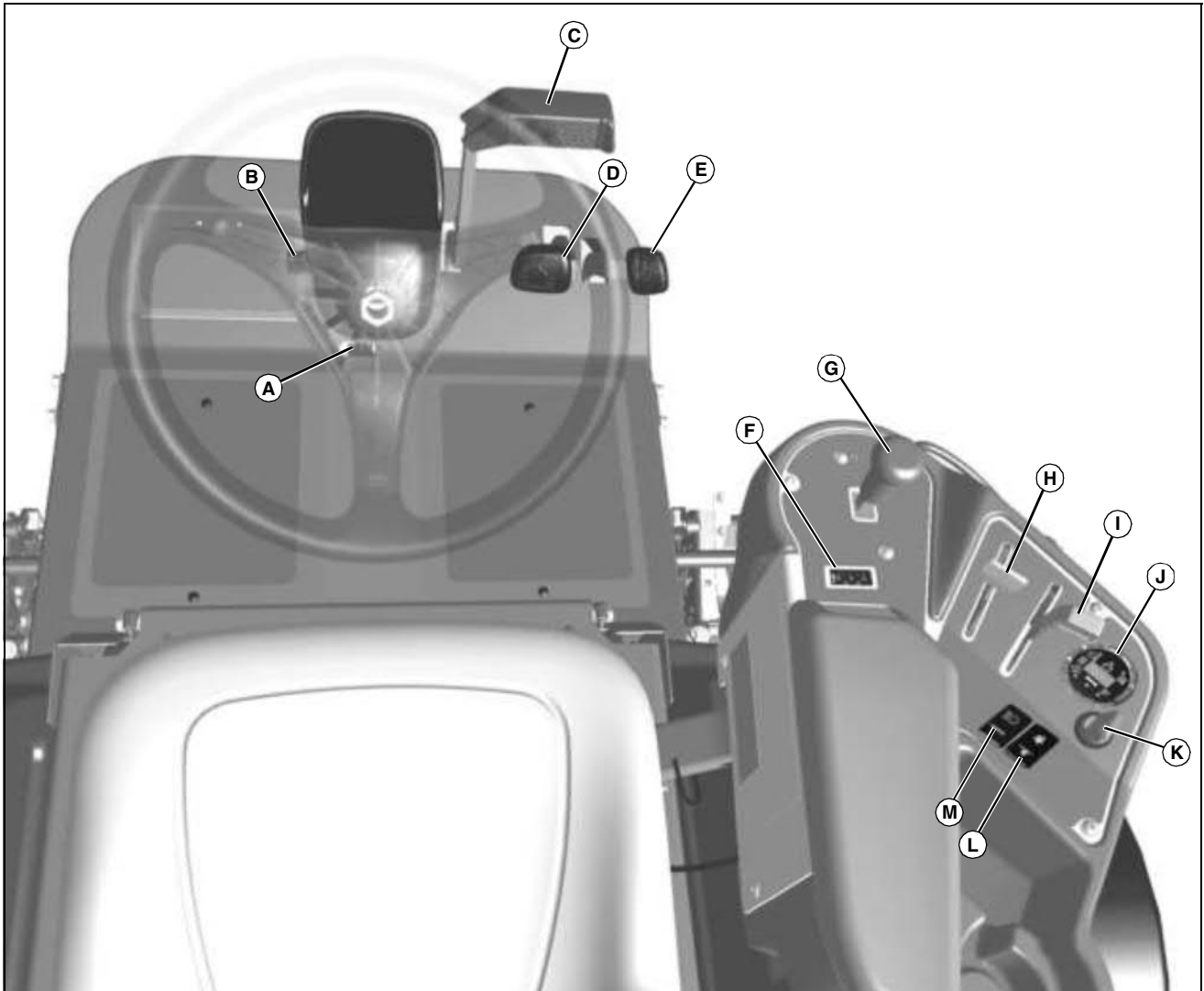
- Do not use beverage containers for waste fluids - someone may drink from them.
- See your local Recycling Center or authorized dealer to learn how to recycle or get rid of waste products.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, 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.

## Handling Waste Product and Chemicals

Waste products, such as, used oil, fuel, coolant, brake fluid,

# OPERATING CONTROLS

## Operating - Controls



MX41586

Key	Description	Key	Description
A	Park Brake Lock	I	Throttle Control Lever
B	Tilt Steering Adjustment Lever	J	Indicator Light and Hourmeter Module
C	Park Brake Pedal/Emergency Stop	K	Key
D	Forward Travel Pedal	L	Cruise Control Switch (Optional)
E	Reverse Travel Pedal	M	Light Switch
F	Fault Indicator (Reel Controller)		
G	Raise-Lower Lever		
H	Mow-Transport Lever		

# OPERATING - MACHINE

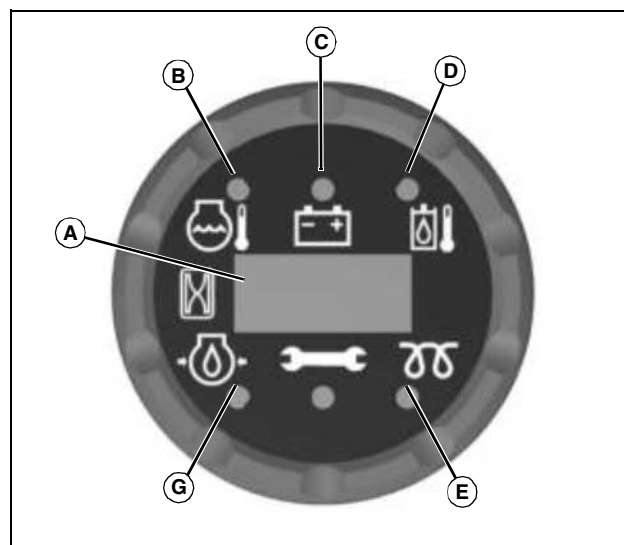
## Daily Operating Checklist

- Test safety systems.
- Check tire pressure.
- Check fuel level.
- Check engine oil level.
- Check engine coolant 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 Cleaner Restriction Indicator.
- Check Fuel/Water Separator for the presence of water (red ring floating off the bottom of the bowl) and drain as needed.
- Check and clean space between radiator and hydraulic oil cooler.

## Avoid Damage to Plastic and Painted Surfaces

- Do not wipe plastic parts unless rinsed first. Using a dry cloth may cause scratches.
- 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.
- Prolonged exposure to sunlight will damage hood surfaces.

## Using Indicator Lights



MX41275

- **Hourmeter (A)** will display number of hours the engine has been running.
- **Engine Coolant Temperature Indicator (B)** will glow if engine temperature becomes excessive. Stop engine and determine cause.
- **Battery Discharge Indicator (C)** will glow when alternator is not producing adequate current. Stop engine and determine cause.
- **Hydraulic Oil Temperature Indicator (D)** will glow when hydraulic oil temperature is high. Stop all hydraulic functions immediately. Let hydraulic oil temperature 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 Air Preheat and Diagnostic Indicator Light (E)** will glow when key switch is turned to the run position. After approximately three to fifteen seconds the light will go out. Indicator light will also flash a diagnostic code to help the operator identify operational and electrical problems. For codes see safety interlock diagnostic codes in the operating section of this manual
- **Engine Oil Pressure Indicator (G)** will glow when engine oil pressure is low. If lamp glows when engine is running, stop engine immediately. See your John Deere distributor.

## Using the Hour Meter

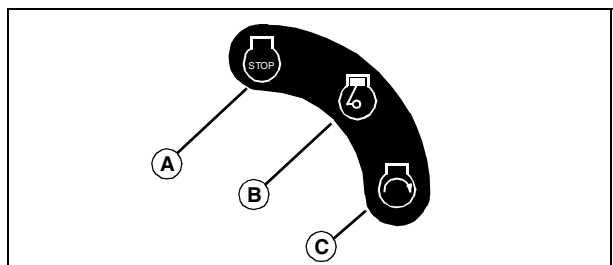
- The hour meter shows the approximate number of hours the engine has run.

# OPERATING - MACHINE

- Use the hour meter and Service Interval Chart to determine when the machine will need service.

## Using Operating Controls

### Using Key Switch



MX20433, MIF

- 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 three seconds and then go out. Engine is now ready to start.
- Start position (C) - starter should engage and crank the engine. After engine starts release the key to the run position. All indicator lights should go out.

### 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 the fast position.

### To Travel in Forward or Reverse

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

1. To travel forward, depress forward travel pedal.
2. Remove foot from pedal to stop mower.



**CAUTION: Avoid injury! Look down and behind before and while backing. Clear area of all bystanders before backing machine.**

3. To travel in reverse, depress reverse travel pedal.
4. Remove foot from pedal to stop mower.

### Using the Mow-Transport Lever

1. Pull the raise-lower lever rearward to raise cutting units.

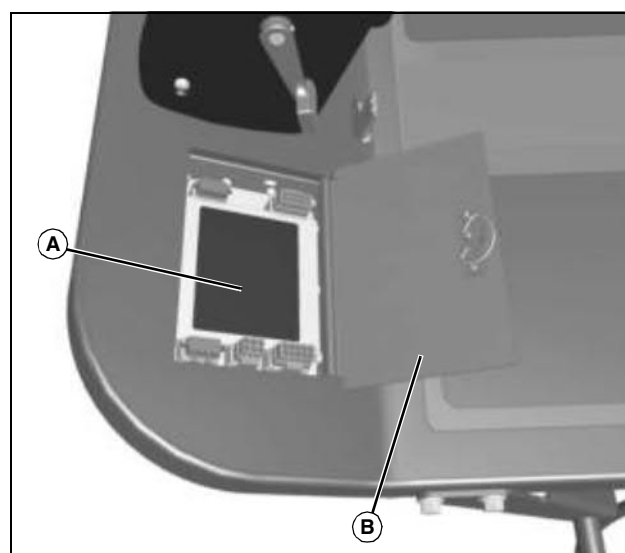
**IMPORTANT: Avoid damage! Moving the Mow-Transport lever while the travel pedals are in use may cause damage to the Mow-Transport cable. Release the travel pedals before using the Mow-Transport lever.**

2. Move the mow-transport lever to the mow position.
3. Push the raise-lower lever forward to lower cutting units.
  - Cutting reels will begin to rotate as the cutting units are lowered.
4. Pull raise-lower lever rearward to raise cutting units.
  - Cutting reels will stop rotating as the cutting units are raised.
5. Move the mow-transport lever to the transport position to disengage reel drive for cutting units.

### Using the Raise-Lower Lever

1. Push raise-lower lever forward to lower cutting units.
  - If the mow-transport lever is in the mow position, the cutting reels will begin to rotate.
  - If the mow-transport lever is in the transport position, the cutting units will lower but the reels will not rotate.
2. Pull raise-lower lever rearward to raise cutting units.
  - If the mow-transport lever is in the mow position, the cutting reels will stop rotating.

## Electronic Control Module



MX41599

This machine is equipped with an electronic control module (A) under the left floor panel cover (B). The module controls and monitors all safety interlock functions and the engine



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## OPERATING - MACHINE

air preheater function.

### Sit-on-Seat Diagnostics

Sit-On-Seat (SOS) diagnostics are provided to help diagnose problems starting the engine.

The following conditions must be met to energize the starter solenoid and engage the starter motor:

- Park brake locked.
- Mow-transport lever in the transport position.
- Pedals are in the neutral position.
- Key switch in the START position.

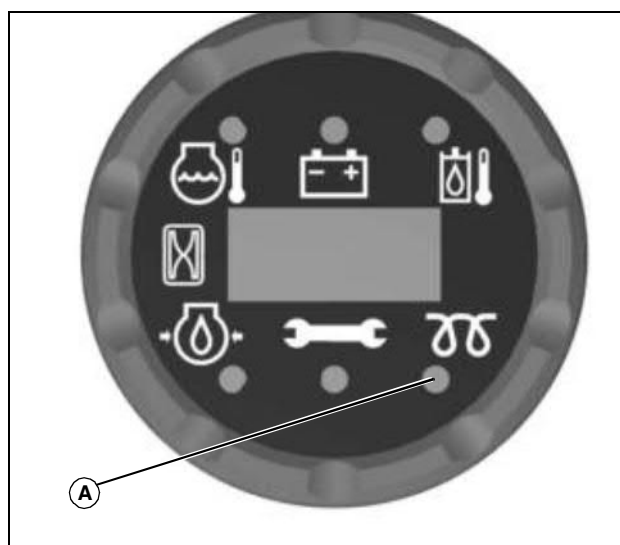
If engine does not turn over, hold the key in the START position, the engine air preheat light on the indicator light module will begin to flash a diagnostic code.

If any codes are flashing other than the ones described below, refer to the Technical Manual or consult your John Deere distributor.

**NOTE:** Sit-On-Seat diagnostic code label is located on the side panel of the right side command arm, and the indicator light/hour meter module is on top of the command arm.

<b>SIT ON SEAT DIAGNOSTIC CODES:</b> 1-2 Brake not engaged 1-3 Attempted start with PTO turned on 2-1 Traction pedals out of neutral 2-2 Hydraulic overtemp 2-3 Hood switch open <b>HARNESS TROUBLE CODES FOR CHECKING SOFTWARE:</b> 3-1 Overvoltage 3-5 Missing ground input connection 3-6 Missing power input connection 3-7 Internal overtemperature 9-1 Invalid software selected <b>SEE OPERATOR'S MANUAL FOR MORE DETAIL</b>	<b>CODIGOS PARA DIAGNOSTICO DE FALLA CON ASIENTO OCUPADO:</b> 1-2 Freno no aplicado 1-3 Se intentó el arranque con la TDF engranada 2-1 Pedales de la tracción fuera del hilo neutro 2-2 Sobretemperatura del aceite hidráulico 2-3 Interruptor de la capilla abierto <b>CODIGOS DE AVERIA DE ARNES PARA COMPROBACION DE SOFTWARE:</b> 3-1 Sobrevoltaje 3-5 Conexión a tierra faltante en entrada 3-6 Conexión a alimentación faltante en entrada 3-7 Sobretemperatura interna 9-1 Selección no válida de software <b>VER EL MANUAL DEL OPERADOR PARA MAS INFORMACION</b>
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TCU16303



MX41275

**Picture Note:** Engine Air Preheat and Diagnostic Indicator Light (A).

- **Code 1-2** (One pulse followed by a short pause by two pulses). Indicates that the brake switch is not activated during an attempted start. Lock park brake to start engine.
- **Code 1-3** (One pulse followed by a short pause followed by three pulses). Indicates that there was an attempted start with the PTO turned on. Turn PTO off before attempting to start.
- **Code 2-1** (Two pulses followed by a short pause followed by one pulse). Indicates forward/reverse pedals are not in the NEUTRAL position during an attempted start. Be certain forward/reverse pedals are in the neutral position before attempting to start.
- **Code 2-2** (Two pulses followed by a short pause followed by two pulses). Indicates hydraulic oil is in an over-temperature condition. Allow machine to cool before attempting to start.

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