

AutoConnect Mid-Mount Mower 54D and 60D (North America)



JOHN DEERE

OPERATOR'S MANUAL

AutoConnect Mid-Mount Mower 54D and 60D

OMLVU30970 ISSUE J5 (ENGLISH)

CALIFORNIA

Proposition 65 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.

If this product contains a gasoline engine:

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

John Deere Augusta Works

North American Edition
PRINTED IN U.S.A.

Introduction

Foreword

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. See www.techpubs.deere.com (Ag&Turf/JDPS), www.johndeeretechnico.com (C&F), or your John Deere dealer to order.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction of forward travel.

WRITE PRODUCT IDENTIFICATION NUMBERS (PIN) in the Specification or Machine Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. PIN information is helpful when ordering parts. File the identification numbers in a secure place off the machine.

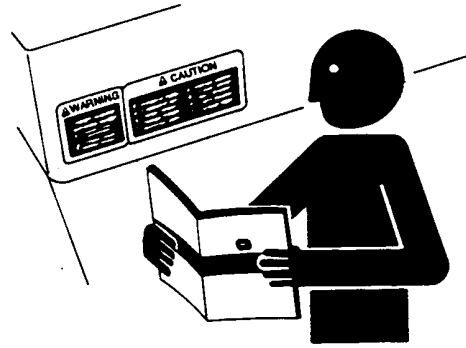
WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received at time of purchase.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

If you are not the original owner of this machine, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

DX,IFC1-19-03APR09

John Deere Is at Your Service



TS201—UN—15APR13

Customer satisfaction is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts, and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.
- **John Deere replacement parts, repair services, and information for maintenance or repair are available. For more information, please visit deere.com or deere.ca.**

DX,IFC,JDS-19-30SEP25

Contents

	Page		Page
Product Identification		Removing and Storing	
Product Compatibility	00-1	Remove Mower	35-1
Record Identification Numbers	00-1	Storing Mower	35-2
Safety Labels		Service	
Replace Safety Signs	05-1	Service Intervals	40-1
Safety Labels	05-1	Grease	40-1
Safety		Gear Oil	40-1
Recognize Safety Information	10-1	Service the Mower Deck Using the Load-N-Go Ramps	40-1
Understand Signal Words	10-1	Lubricating Mower	40-2
Follow Safety Instructions	10-1	Servicing Gearbox	40-2
Prepare for Emergencies	10-1	Servicing Mower Belt	40-2
Wear Protective Clothing	10-2	Check for Bent Mower Blades	40-3
Protect Against Noise	10-2	Remove and Install Mower Blades	40-3
Training	10-2	Sharpen Blades	40-4
Preparation	10-2	Balance Blades	40-4
Operation	10-2	Replacing Wheels	40-5
Maintenance and Storage	10-3	Replace Sheaves	40-5
Checking Mowing Area	10-3	Troubleshooting	
Park Machine Safely	10-4	Use Troubleshooting Chart	50-1
Rotating Blades are Dangerous	10-4	Mower Deck Troubleshooting	50-1
Avoid Backover Accidents	10-4	Connecting Mower Deck Troubleshooting	50-2
Protect Children	10-4	Specifications	
Stay Clear of Rotating Drivelines	10-5	Mower Deck Specifications	60-1
Avoid Tipping	10-5		
Store Attachments Safely	10-5		
Assembly			
Required Equipment	15-1		
Install Wheels	15-1		
Install Discharge Chute	15-1		
Installing			
Install Mower	20-1		
Connect Hydraulic Hose for Mower Lift	20-3		
Adjusting			
Preparing Machine	25-1		
Adjusting Mower Level (Side-to-Side)	25-1		
Adjusting Mower Level (Front-to-Rear)	25-2		
Adjusting Deck Height	25-4		
Adjusting Mower Wheels	25-6		
Operating			
Raise and Lower Mower	30-1		
Setting Height of Cut	30-2		
Engaging Mower	30-2		
Unplugging Mower	30-2		
Transporting Mower on Machine	30-2		
Transporting Machine on Trailer	30-2		

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

Product Identification

Product Compatibility

The 54D and 60D AutoConnect mowers are designed for use with compact utility tractor models:

1023E, 1025R, 1026R Serial No. (LL100001-)

2025R, 2026R Serial No.(HH100001-)

Before operating the mower, the following equipment must be installed on the machine. See your John Deere dealer or other service provider.

- Mower Lift Kit
- Independent Hydraulic Lift Kit (Optional)

UP00731,0000A12-19-15OCT25

Record Identification Numbers

AutoConnect Mower

Mowers for 1023E, 1025R, 1026R:

For tractor Serial No. (LL100001-)

Mowers for 2025R, 2026R:

For tractor Serial No. (HL100001-)

If you need to contact an Authorized Service Center or other service provider for information on servicing, always provide the product model and serial number.

You will need to locate the model and serial numbers for the mower deck and record the information in the spaces provided below.

DATE OF PURCHASE:

DEALER NAME:

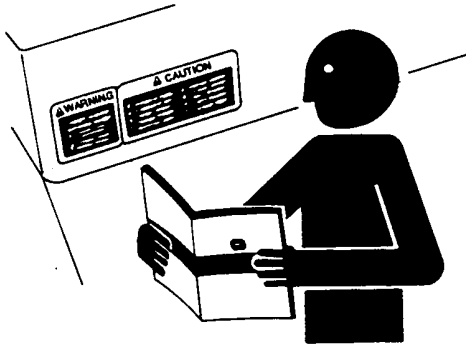
DEALER PHONE:

PRODUCT SERIAL NUMBER:

UP00731,0000A11-19-15OCT25

Safety Labels

Replace Safety Signs



TS201—UN—15APR13

Replace missing or damaged safety signs. Use this operator's manual for correct safety sign placement.

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

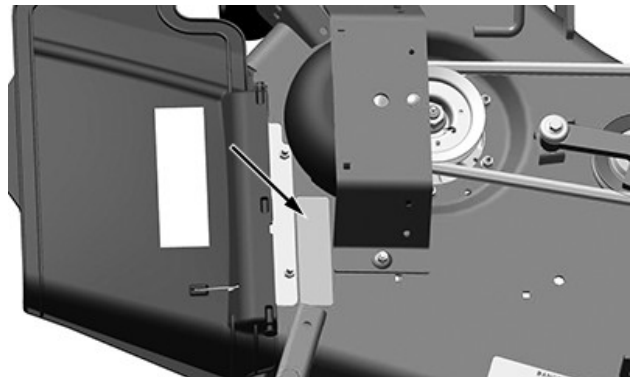
DX,SIGNS-19-18AUG09

Do not put hands or feet under or into mower when engine is running.



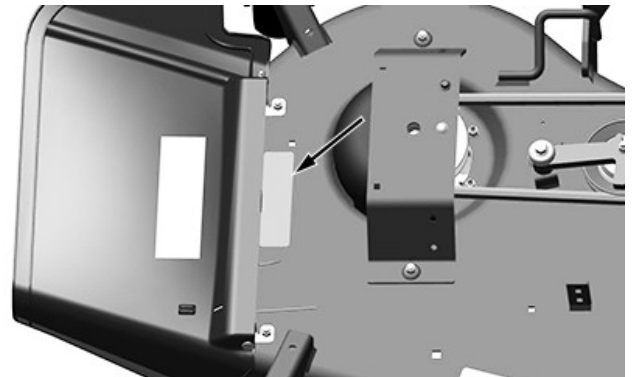
LV18772—UN—20AUG13

Safety Label - M139128



LV27033—UN—09DEC16

54 Inch Mower Deck



LV27032—UN—09DEC16

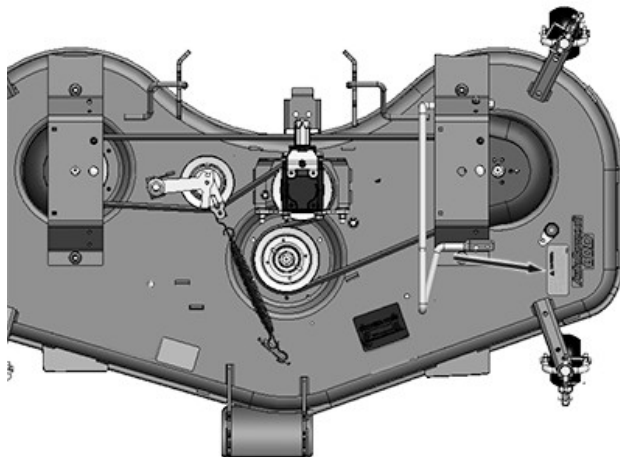
60 Inch Mower Deck

Safety Labels



LV18771—UN—20AUG13

Safety Label - M118610



LVP12162—UN—22DEC21

60 Mower Deck Shown, 54 is Similar

DANGER

To avoid injury from rotating blades and thrown objects:

Keep hands and feet away from rotating blades.

Keep bystanders a safe distance away. Do not operate mower without discharge chute or entire grass catcher in place.

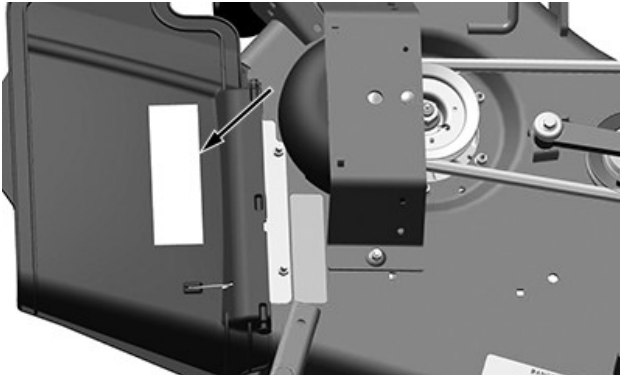
DANGER

ROTATING BLADE



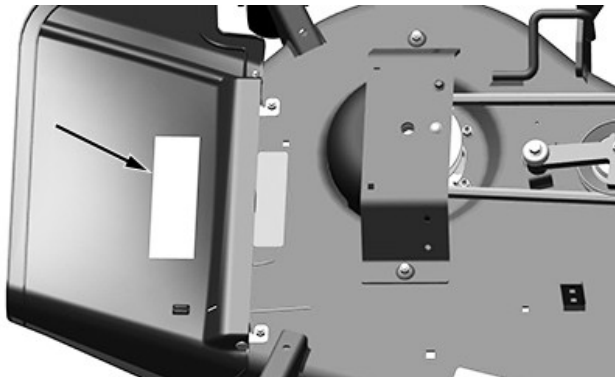
LV18773—UN—20AUG13

Safety Label - M156388



LV27031—UN—09DEC16

54 Inch Mower Deck



LV27029—UN—09DEC16

60 Inch Mower Deck

DANGER

ROTATING BLADE

Do not put hands or feet under or into mower when engine is running.

THROWN OBJECTS

Before mowing, clear area of objects that may be thrown by blade.

Do not operate mower without discharge chute or entire grass catcher in place.

AL61114,0000764-19-22DEC21

Safety

Recognize Safety Information



T81389—UN—28JUN13

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

DX,ALERT-19-03OCT22

Understand Signal Words



▲ WARNING

▲ CAUTION

TS187—19—30SEP88

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

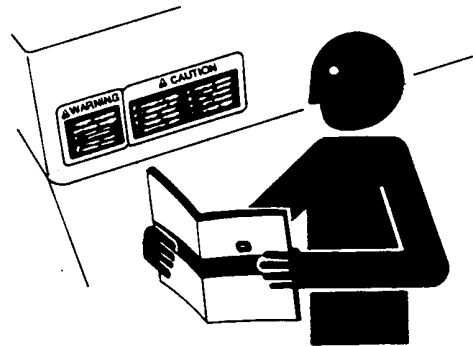
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

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

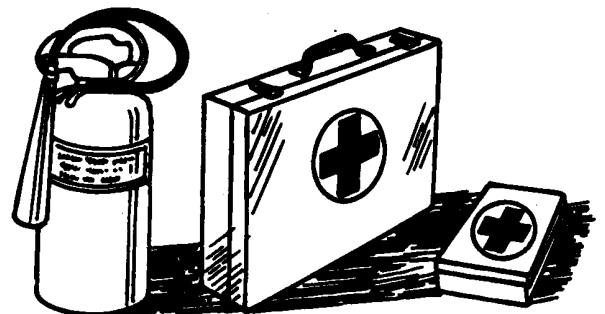
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ-19-01AUG22

Prepare for Emergencies



TS291—UN—15APR13

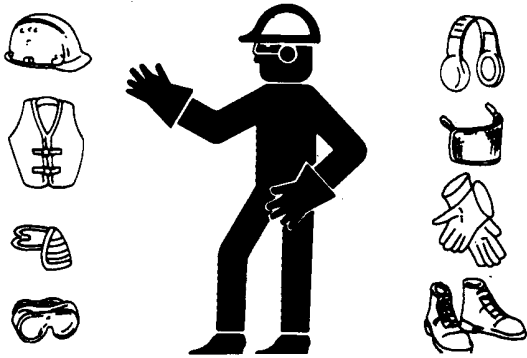
Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

DX,FIRE2-19-03MAR93

Wear Protective Clothing



TS206—UN—15APR13

Wear close fitting clothing and safety equipment appropriate to the job.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

DX.WEAR2-19-03MAR93

Protect Against Noise



TS207—UN—23AUG88

There are many variables that affect the sound level range, including machine configuration, condition and maintenance level of the machine, ground surface, operating environmental, duty cycles, ambient noise, and attachments.

Exposure to loud noise can cause impairment or loss of hearing.

Always wear hearing protection. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

DX.NOISE-19-03OCT17

Training

- Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
- Never allow children or people unfamiliar with these

instructions to use the lawn mower. Local regulations can restrict the age of the operator.

- Never mow while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Do not carry passengers.

AP43109,0000288-19-16APR13

Preparation

- While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
- Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown by the machine.
- Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

AP43109,0000289-19-15APR13

Operation

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Mow only in daylight or in good artificial light.
- Before attempting to start the engine, disengage all blade attachment clutches and shift into neutral.
- Remember there is no such thing as a safe slope. Travel on grass slopes requires particular care. To guard against overturning:
 - Never mow across the face of a slope, unless the machine is designed for this purpose.
- Stop the blades from rotating before crossing surfaces other than grass.
- Never direct discharge of material toward bystanders nor allow anyone near the machine while in operation.
- Never operate the machine with defective guards, or without safety protective devices in place.
- Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.
- Before leaving the operator's position:
 - Disengage the drive to any attachments and lower them;
 - Change into neutral and lock the parking brake;

- Stop the engine and remove the key.
- Disengage drive to attachments, stop the engine, disconnect the spark plug wires and remove the ignition key:
 - Before clearing blockages or unclogging chute;
 - Before checking, cleaning, or working on the machine;
 - After striking a foreign object. Inspect the machine for damage and make repairs before restarting and operating the equipment;
 - If the machine starts to vibrate abnormally (check immediately).
- Disengage drive to attachments when transporting or not in use.
- Stop the engine and disengage drive to attachment:
 - Before refueling;
 - Before removing the grass catcher;
 - Before making height adjustment unless adjustment can be made from the operator's position.
- Reduce the throttle setting during run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of mowing.
- Inspect machine before you operate. Repair or replace damaged, badly worn, or missing parts. Make any necessary adjustments before you operate.
- Do not operate mower without discharge chute or entire grass catcher in place. Never operate with the discharge deflector raised, removed, or altered, unless using a grass catcher.
- Stop machine if anyone enters the area.
- Use only accessories and attachments approved by the manufacturer of the machine. Keep safety labels visible when installing accessories and attachments.
- Never raise mower decks when blades are running.

AP43109,000028A-19-18APR13

Maintenance and Storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment with fuel in the tank inside a building where fumes can reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer, battery compartment and fuel storage area free of grass, leaves, or excessive grease.
- Check the grass catcher frequently for wear or deterioration.
- Replace worn or damaged parts for safety.

- If the fuel tank has to be drained, this should be done outdoors.
- On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.
- When machine is to be parked, stored or left unattended, lower the cutting means unless a positive mechanical lock is used.
- 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 blades. Wrap the blades or wear gloves, and use caution when servicing them. Only replace blades. Never straighten or weld 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.

AP43109,000028B-19-15APR13

Checking Mowing Area

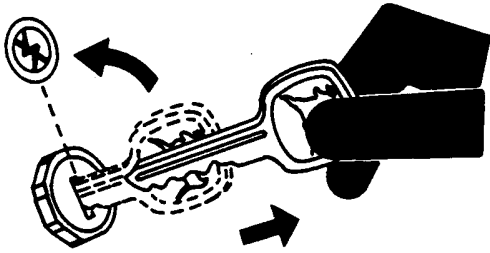


TCAL41689—UN—08APR13

- 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.
- Test drive area with mower lowered but not running. Slow down when you travel over rough ground.

AP43109,000028C-19-15APR13

Park Machine Safely



TS230—UN—24MAY89

Before working on the machine:

- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.

DX,PARK-19-04JUN90

Avoid Backover Accidents



PC10857XW—UN—15APR13

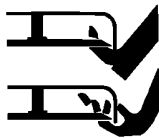
Before moving machine, be sure that all persons are clear of machine path. Turn around and look directly for best visibility. Use a signal person when backing if view is obstructed or when in close quarters.

Do not rely on a camera to determine if personnel or obstacles are behind the machine. The system can be limited by many factors including maintenance practices, environmental conditions, and operating range.

DX,AVOID,BACKOVER,ACCIDENTS-19-30AUG10

Rotating Blades are Dangerous

HELP PREVENT SERIOUS OR FATAL ACCIDENTS:

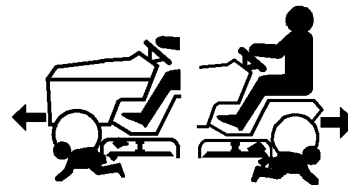


TCAL43410—UN—15MAR13

- Rotating blades 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 mower deck when engine is running.
- Be alert at all times, drive forward and in reverse carefully. People, especially children can move quickly into the mowing area before you know it.
- Before backing up, stop mower blades or attachments and look down and behind the machine carefully, especially for children.
- Do not mow in reverse.
- Shut off blades when you are not mowing.
- Park machine safely before leaving the operator's station for any reason including emptying the grasscatchers or unplugging the chute.

UP00731,000009E-19-04SEP13

Protect Children



MXAL41929—UN—18FEB13

- 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 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.
- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

OUO1023,0000037-19-21FEB13

- 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 operate machine 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.
- Danger of tipping is increased greatly with tires in narrow tread setting and driving at high speed.
- Follow the manufacturer's recommendations for wheel weights or counterweights for added stability when operating on slopes or using front or rear mounted attachments. Remove weights when not required.

UP00731,000009B-19-04SEP13

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

- Wear close fitting clothing.
- Stop the engine and be sure PTO driveline is stopped before getting near it.

UP00731,000009A-19-04SEP13

Avoid Tipping



TCAL47141—UN—12APR13

- 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.
- Be aware that mechanical front wheel drive (MFWD) can improve access to dangerously sloped terrain, thereby increasing the possibility of a tipover.
- Drive up and down a hill - not across.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- 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.
- Choose a low ground speed so you will not have to stop or shift while on a slope.
- Always keep the machine in gear when going down slopes. Do not shift to neutral and coast downhill.
- Avoid starting, stopping or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly, straight down the slope.

Store Attachments Safely



TS219—UN—23AUG88

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.

DX,STORE-19-03MAR93

Assembly

Required Equipment

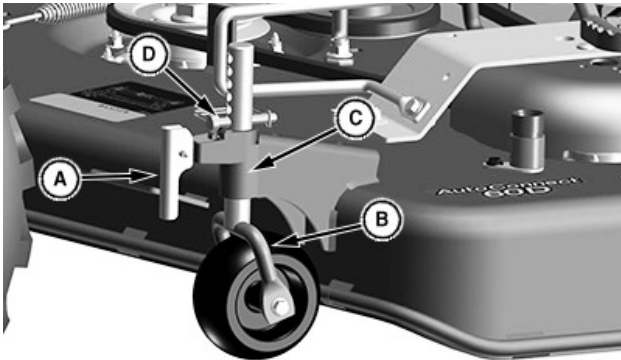
Before installing the mower, the following equipment must be installed on the machine. See your John Deere dealer for ordering information.

- Mower Lift Kit
- Independent Hydraulic Lift Kit (Optional)

CAUTION: Machine component or attachment is heavy. Use a safe lifting device with correct load capacity rating to lift, install or remove component or attachment.

UP00731,000011F-19-03JAN17

Install Wheels



LV27150—UN—21DEC16

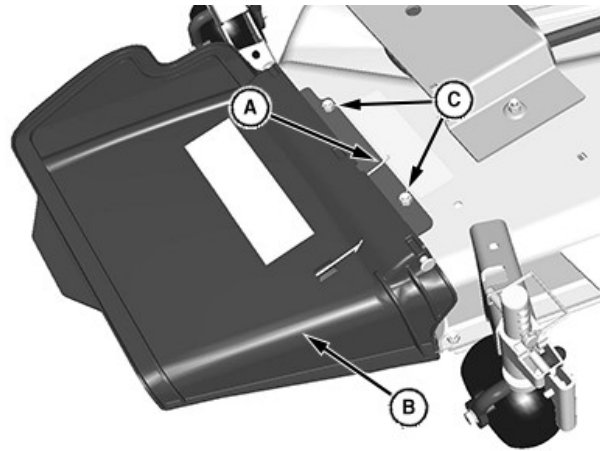
A—Wheel
B—Wheel Bracket
C—Handle
D—Spring Pin

1. Remove mower from crate using chain hoist or other suitable device.
2. Install wheels (A) by sliding wheel shaft up through wheel bracket (B).
3. Press downward on handles (C) to lock wheels. Wheels must be in the unlocked position before installing mower on tractor.
4. Install spring pin (D) in each wheel shaft.

UP00731,0000120-19-21DEC16

Install Discharge Chute

Install Discharge Chute (54D)



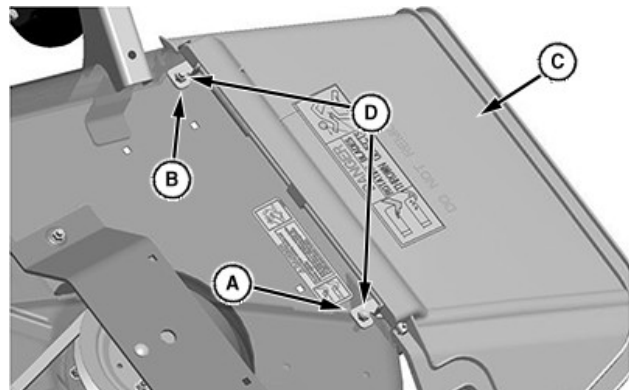
LV23983—UN—04AUG15

Discharge Chute (54D)

A—Spring
B—Chute Assembly
C—Locknuts (M8)

1. Ensure correct placement of spring (A).
2. Position the discharge chute assembly (B) on the mower and secure with two M8x16 carriage head bolts and two M8 locknuts (C).

Install Discharge Chute (60D)



LV23984—UN—04AUG15

Discharge Chute (60D)

A—Rear Hinge
B—Front Hinge
C—Chute Assembly
D—Nuts

1. Attach rear hinge (A) to deck with nut. Do not tighten.
2. Pre-load spring with one hand and attach front hinge (B) to deck with nut. Do not tighten.
3. Pull discharge chute assembly (C) away from deck as nuts (D) are tightened to help align hinges.

UP00731,000036C-19-28JUL15

Installing

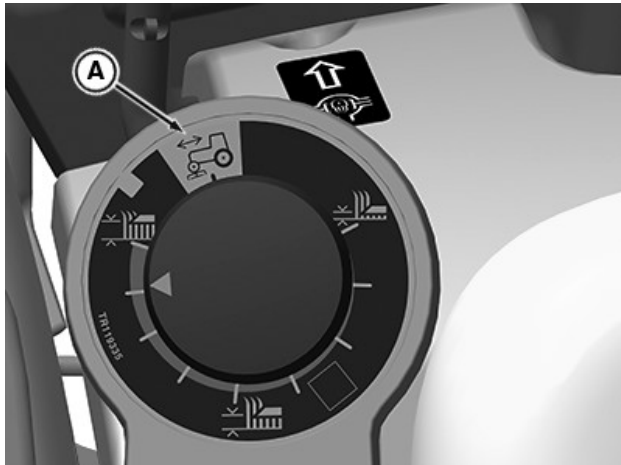
Install Mower

NOTE: If equipped, remove the front weights before installing the mower deck. Replace the weights after the mower deck is installed.



LVP11309—UN—09SEP20

Numeric Label (1 - family shown, 2 - family is similar)

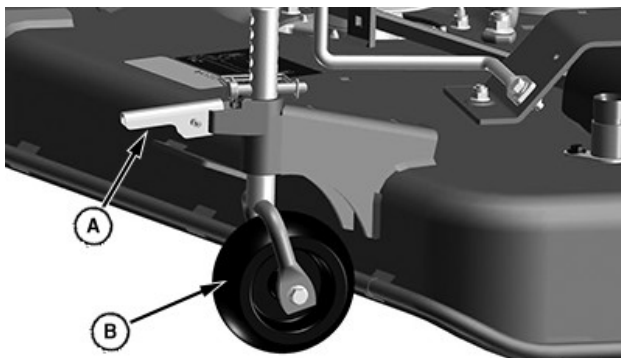


LVP11152—UN—19AUG20

Symbolic Label (1 - family shown, 2 - family is similar)

A—Install Position

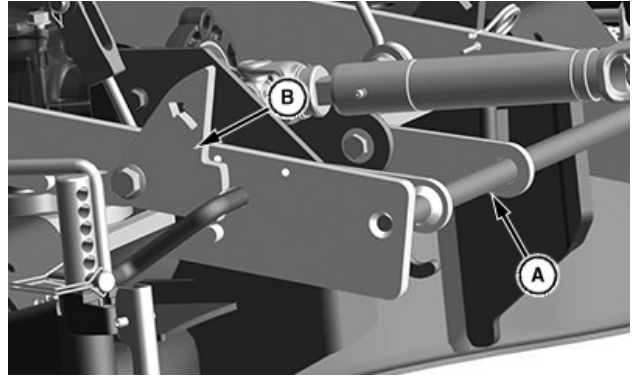
1. Set the mower height control to the install position (A).



LV27027—UN—09DEC16

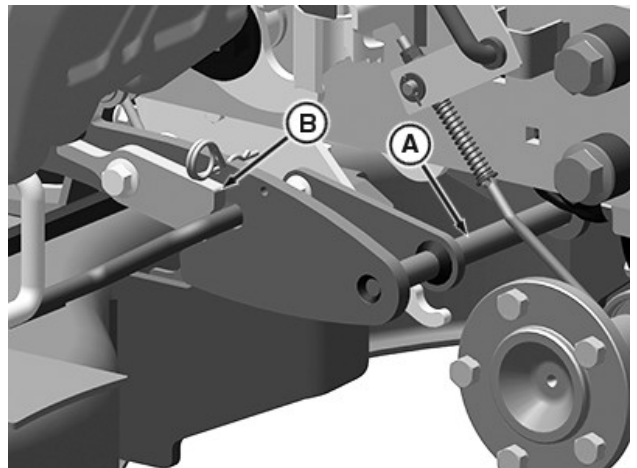
A—Handle
B—Wheel

2. Raise handle (A) to release the lock on each gauge wheel (B). The mower rests fully on the ground.
3. Ensure that the mower deck is sitting on firm, level ground. A smooth surface allows the mower to be pushed along by the tractor. Inflate tires to 20 PSI.



LV27143—UN—16DEC16

Rear Lock Assembly (—MY19)



LVP11520—UN—15OCT20

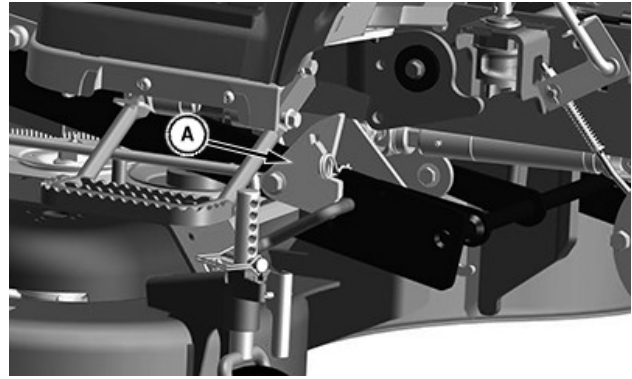
Rear Lock Assembly (MY20—)

A—Rear Lock Assembly
B—Locked Position

4. Ensure the rear lock assembly (A) is in the locked position (B). The lock assembly automatically unlocks as the machine engages the mower, and locks after full engagement.
5. Lower the mower lift arms using the SCV or the rockshaft lever control.
6. Shift the machine PTO selector to the rear PTO to allow the mid-PTO and driveshaft to turn freely and engage the mower gear case with minimal resistance.



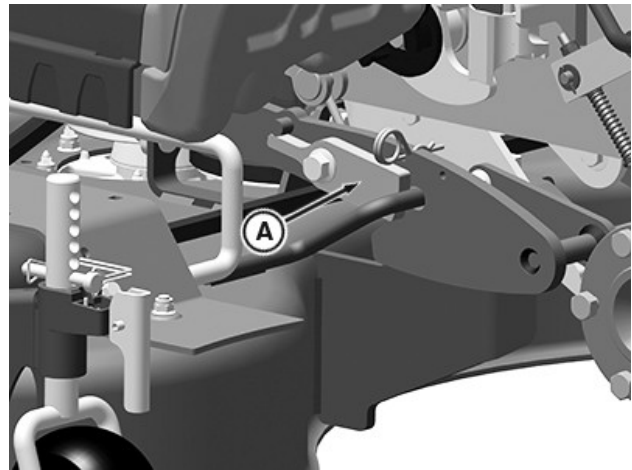
LV27016—UN—09DEC16
Mower Deck (—MY19) Shown, MY20— is Similar



LV27019—UN—09DEC16
—MY19

A—Guide Bar

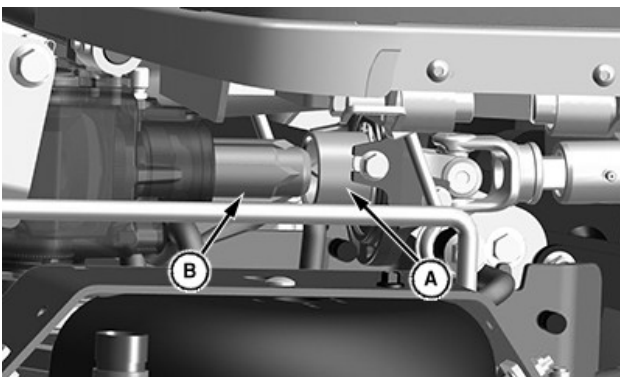
7. Engage the tractor MFWD with the machine in low range. Drive the machine straight toward the rear of the mower while aligning the inside of the left front tire with the guide bar (A).
8. Drive the tractor onto the mower deck with the inside of the left tire against the guide bar.
9. Slowly drive the tractor forward until the mower begins to pull along ground for approximately 102 mm (4 inches) behind front wheels.
10. If mower deck pulls forward early or appears to be caught in the lift system, stop the tractor, reverse slightly, and move forward again. If mower deck still does not properly attach, stop the tractor, lock the park brake, dismount the tractor, and determine the cause of the problem.



LVP11521—UN—15OCT20
MY20—

A—Lock

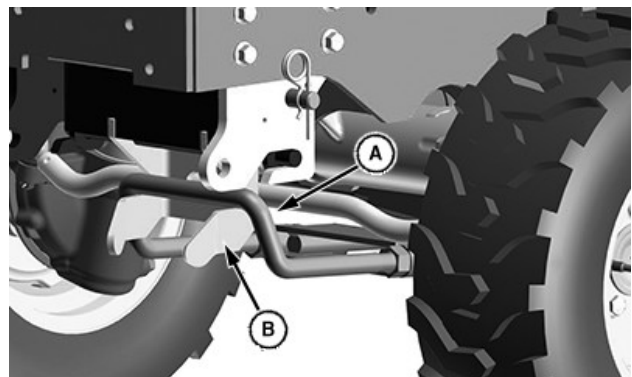
12. Dismount the tractor and ensure locks (A) on both sides have dropped to the locked position. If necessary, pull the mower rearward to engage the lock and the coupler. On first installation, mower may not lock in position if front link is too short.
13. Install the cotter pins in the locked position.



LV27020—UN—09DEC16

A—PTO Coupler
B—Gear Box Coupler

11. PTO coupler (A) aligns with the gear box coupler (B).



LV27018—UN—13DEC16
Forward Link —MY19) Shown, MY20— is Similar

A—Forward Lift Link
B—Hanger

14. Make sure the forward lift link (A) is nested into the hangers (B) per specification.

Specification

Forward Lift Link (A)—Gap 3 mm
0.125 in

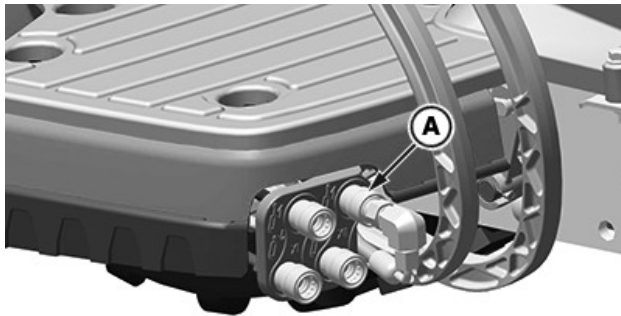
15. Start the engine and lift the mower to full height.
16. Lock down all gage wheels by snapping the handles down and ensuring the lock pins are fully seated in the vertical rods.

UP00731,0000A0F-19-16OCT20

Connect Hydraulic Hose for Mower Lift

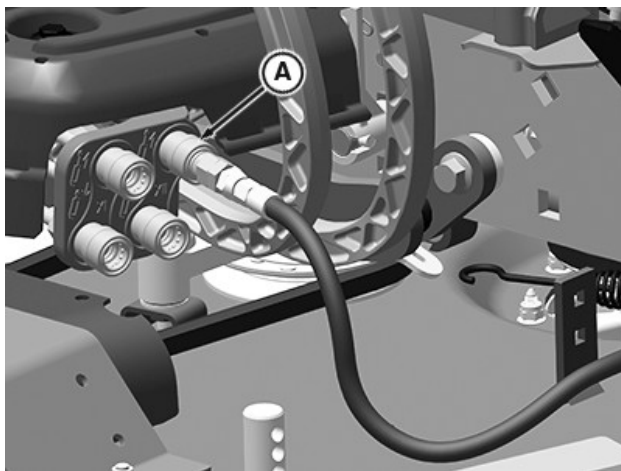
Connect Hydraulic Hose for SCV Hydraulic Mower Lift

1. Disconnect all loader SCV hose from SCV ports.



LV30376—UN—11OCT18

Hydraulic Port (2 - family tractor)



LVP11522—UN—15OCT20

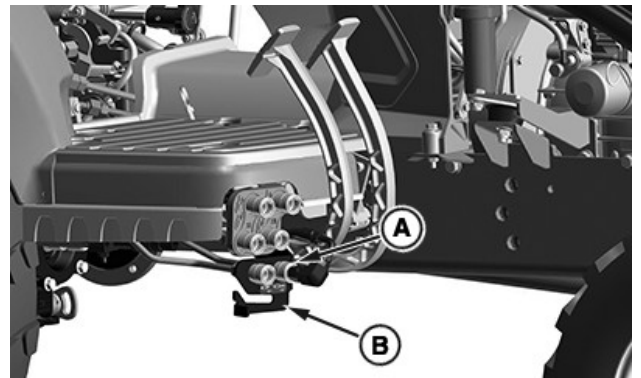
Hydraulic Port (1 - family tractor)

A—Port

2. Connect the hydraulic mower lift hose to port (A).

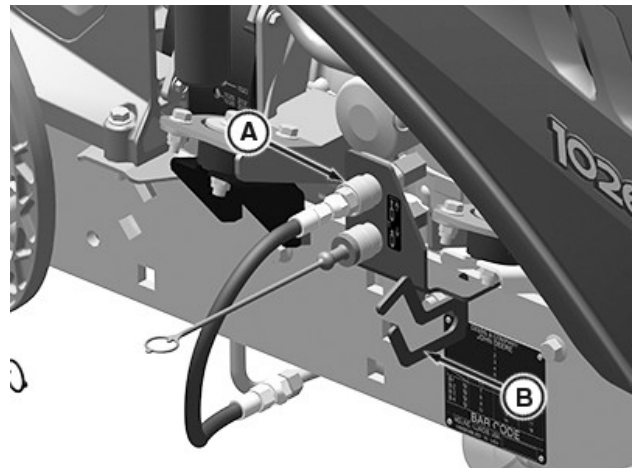
Connect Hydraulic Hose for Third Function Mower Lift

1. Disconnect all loader SCV and third function hose from SCV ports.



LV30378—UN—15OCT18

2 - Family Shown, 1 - Family (—MY19) is Similar



LVP11540—UN—16OCT20

1 - Family (MY20—)

A—Third Function Mower Lift Hose
B—Storage Bracket

2. Connect the third function mower lift hose to the SCV port (A).
3. When not in use, store the third function lift hose in the storage bracket (B)

DN39857,000031B-19-16OCT20

Adjusting

Preparing Machine

Required Equipment:

- Mower Lift Kit
- Independent Hydraulic Lift Kit (Optional)

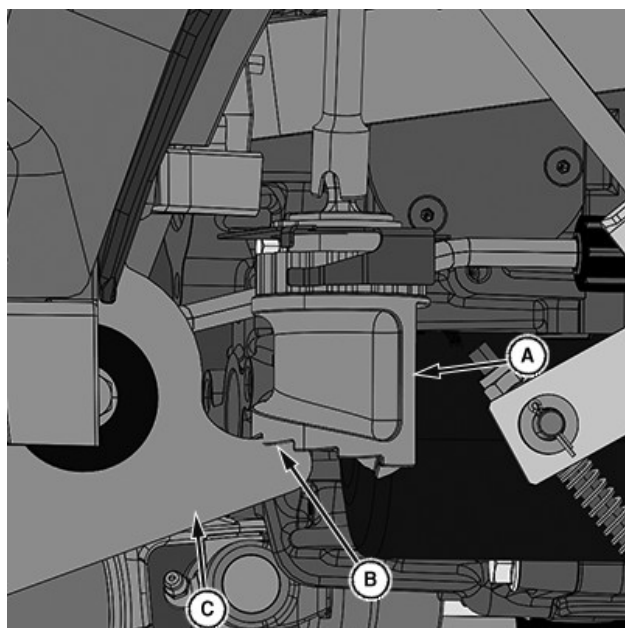
Machine Setup:

1. Park machine safely.
2. Follow machine operator's manual instructions to check tire pressure.
3. Assemble the mower deck per assembly instructions in operator's manual.

UP00731,0000106-19-21DEC16

Adjusting Mower Level (Side-to-Side)

1. Park machine on a flat, level surface.
2. Lock park brake.
3. Disengage mower blades.



LV29980—UN—04APR18

A—Height of Cut Cam
B—Fifth Step
C—Bellcrank

4. Raise the mower deck. Turn the height-of-cut control dial until the fifth step (B) on the height of cut cam (A) is oriented towards the bell crank (C). Lower the mower deck fully.

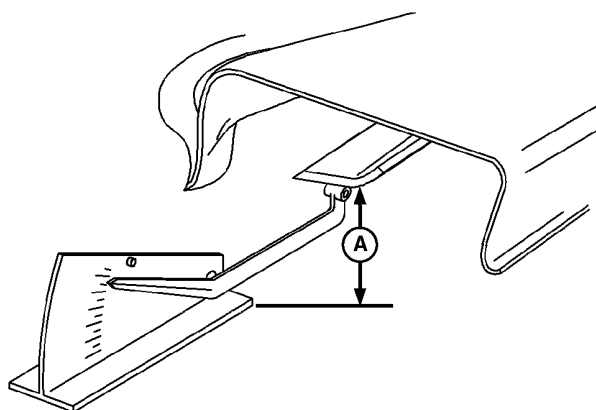
CAUTION: Rotating blades are dangerous. Before adjusting or servicing mower:

- To prevent the engine from starting accidentally, disconnect the negative (-) battery cable.

- Always wear gloves when handling mower blades or working near blades.

5. Stop the engine, remove the key, and hang a "DO NOT OPERATE" tag in the operator station.
6. Wait for the engine and all moving parts to stop before leaving the seat.
7. Disconnect the negative (-) battery cable.

NOTE: Do not allow the mower wheels to contact the ground during leveling.

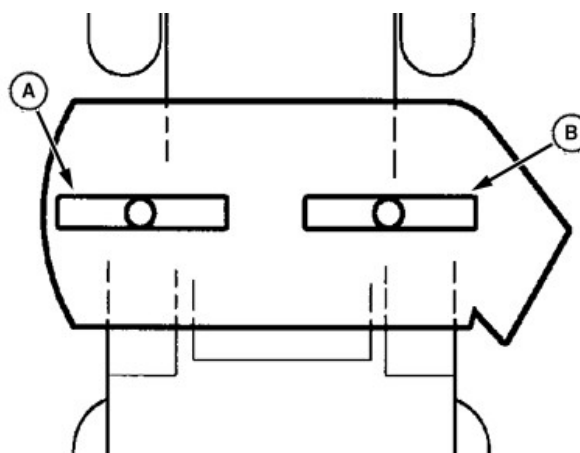


LV18692—UN—20AUG13

Using Leveling Gauge

A—Level Surface

8. Measure from the outside blade tip to the level surface (A).



LV24008—UN—04AUG15

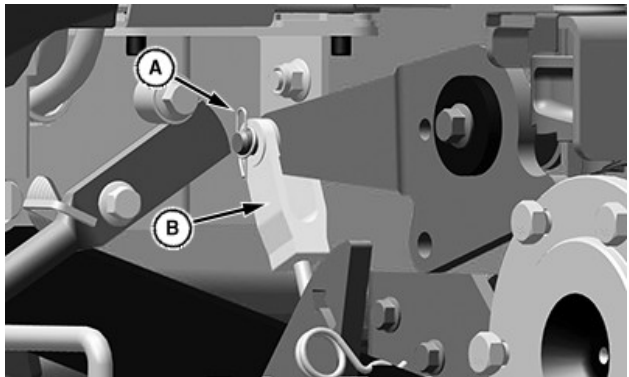
A—Left Blade
B—Right Blade

9. Turn the left blade (A) as shown. Hold drive belt and turn the right blade (B) as shown. Take blade tip-to-surface measurement on both blades. The difference between both measurements must not be greater than specification.

Specification

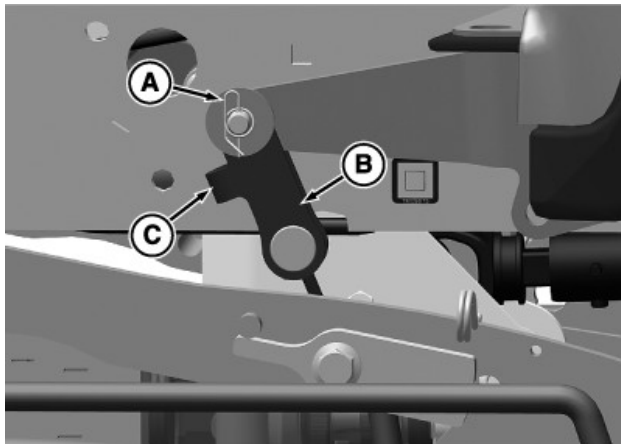
Side-to-Side—Difference. 3 mm
0.125 in

IMPORTANT: Avoid damage! For MY20— tractors, the protrusion (C) must face towards the front of the tractor to avoid damage to parts.



LV27024—UN—15DEC16

Turnbuckle (—MY19) Shown



LV30785—UN—10AUG21

Turnbuckle (MY20—) Shown

A—Retaining Pins
B—Turnbuckle
C—Protrusion

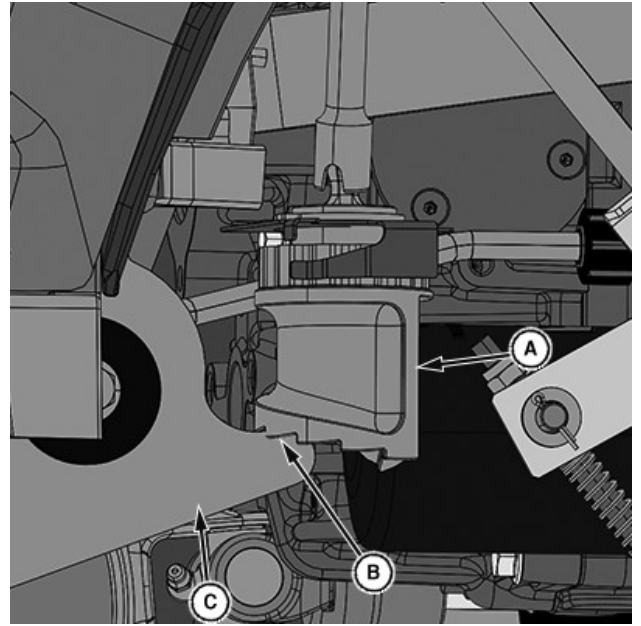
10. To adjust the side-to-side level:

- a. Remove the retaining pins (A) from the left and right rear turnbuckles (B).
- b. Adjust one turnbuckle at a time, and check the blade level.
- c. When adjustment is complete, install the retaining pins.

UP00731,000010C-19-12AUG21

Adjusting Mower Level (Front-to-Rear)

1. Park machine on a flat, level surface.
2. Lock the park brake.
3. Disengage the mower blades.



LV29980—UN—04APR18

A—Height of Cut Cam
B—Fifth Step
C—Bellcrank

4. Raise the mower deck. Turn the height-of-cut control dial until the fifth step (B) on the height of cut cam (A) is oriented towards the bell crank (C). Lower the mower deck fully.

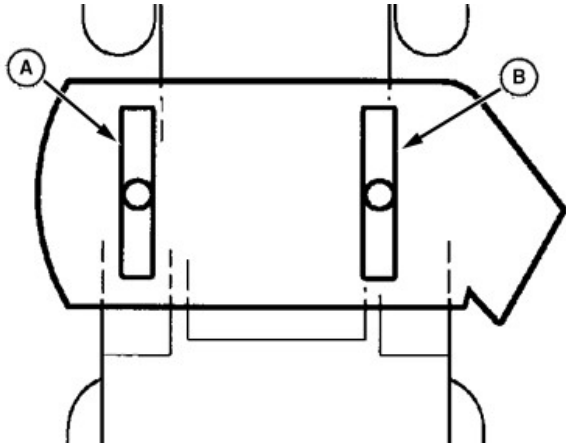
CAUTION: Rotating blades are dangerous. Before adjusting or servicing mower:

- To prevent the engine from starting accidentally, disconnect the negative (-) battery cable.
- Always wear gloves when handling mower blades or working near blades.

5. Stop the engine, remove the key, and hang a "DO NOT OPERATE" tag in the operator station.
6. Wait for the engine and all moving parts to stop before leaving the operator seat.
7. Disconnect the negative (-) battery cable.

NOTE: Adjust the front blade of the mower lower than the rear blade of the mower.

Do not allow the mower wheels to contact the ground during leveling.



LV24010—UN—04AUG15

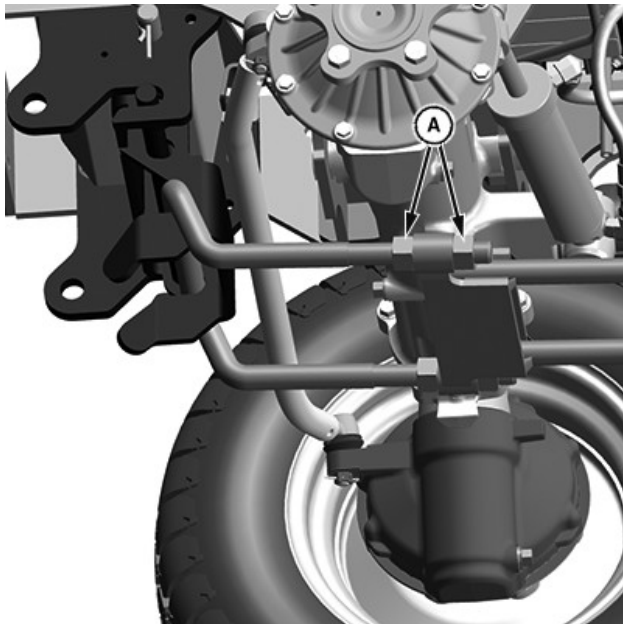
A—Left Blade
B—Right Blade

8. Turn the left blade (A) as shown. Hold the drive belt and turn the right blade (B) as shown. Take blade tip-to-surface measurement on both ends of each blade and compare to specification:

Specification

Blade Tip Front-to-Rear (front is the lower end)—Height

Difference. 3—6 mm
0.125—0.236 in



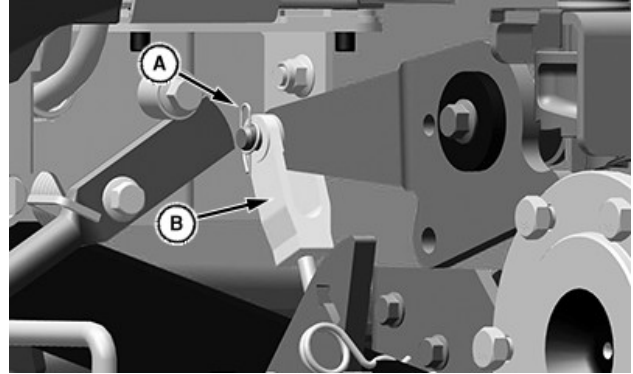
LV29982—UN—04APR18

A—Draft Link Nut (4 used)

9. If the front-to-rear difference is within specification, tighten draft link nuts (A) and go to step 12.
10. If the front-to-rear difference is greater than 13 mm (0.50 in), loosen draft link nuts (A).
 - a. To raise the front of the deck, shorten the draft link.

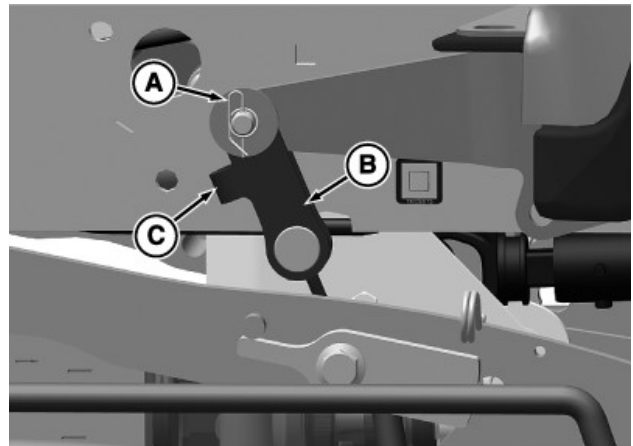
- b. To lower the front of the deck, lengthen the draft link.
- c. Return to step 4 to measure the front-to-rear level.

11. If the front-to-rear difference is less than 13 mm (0.50 in) but greater than 3 mm (0.125 in), tighten the draft link nuts (A).



LV27024—UN—15DEC16

Turnbuckle (—MY19) Shown



LV30785—UN—10AUG21

Turnbuckle (MY20—) Shown

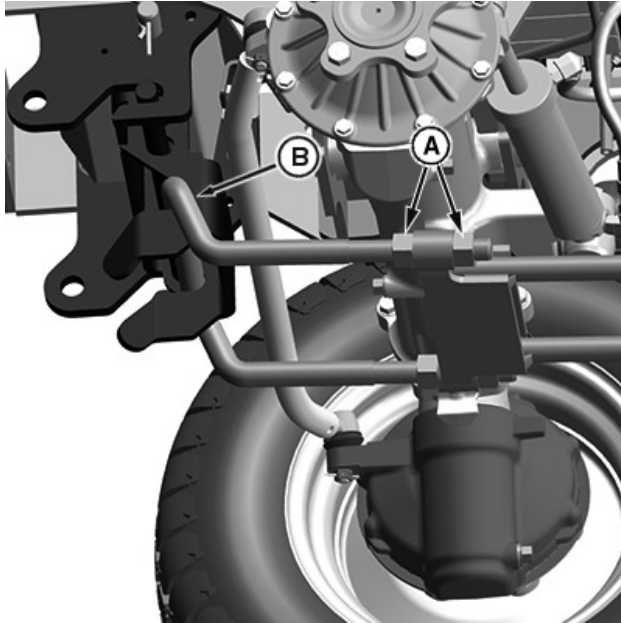
A—Retaining Pins
B—Turnbuckle
C—Protrusion

- a. Connect the negative battery cable.
- b. Lower the deck to the ground, stop the engine, and remove the key.

IMPORTANT: Avoid damage! For MY20—tractors, the protrusion (C) must face towards the front of the tractor to avoid damage to parts.

- c. Remove the retaining pins (A) and pivot pin securing both turnbuckles (B) to the lift arms.
- d. Shorten both turnbuckle assemblies an equal number of turns to raise the rear of the deck.

- e. Lengthen both turnbuckle assemblies an equal number of turns to lower the rear of the deck.
 - f. When the adjustment is complete, install the retaining pins.
 - g. Return to step 4 to measure the front-to-rear level.
12. Connect the negative battery cable.
 13. Lower the deck to the ground, stop the engine, and remove the key.



LVP11523—UN—15OCT20

Draft Link (—MY19) Shown, MY20— is Similar

- A—Draft Link Nut (4 used)**
B—Draft Link Gap

14. Measure the draft link gap (B) and compare to specifications.

Specification

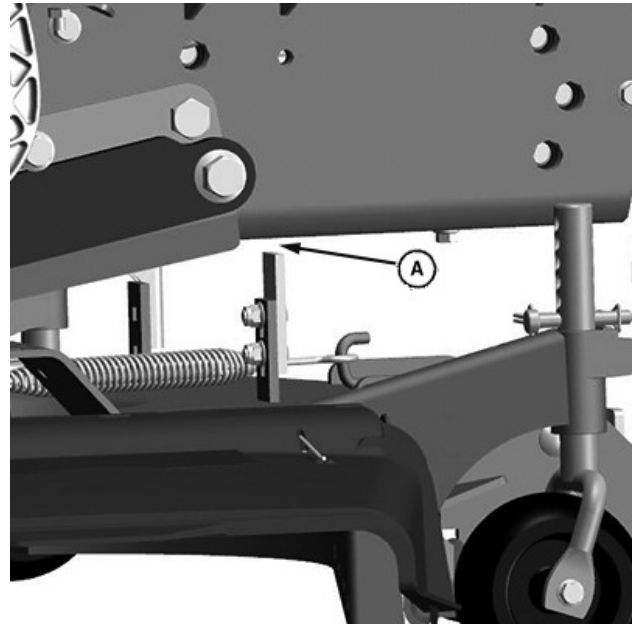
Draft Link Gap (B)—Distance. 3 mm
 0.125 in

15. If the draft link gap (B) is not to specification, loosen the draft link nuts (A).
 - a. To decrease the draft link gap, shorten the draft link.
 - b. To increase the draft link gap, lengthen the draft link.
 - c. Return to step 4 to measure the front-to-rear level.
16. If the draft link gap (B) is to specification, the front-to-rear leveling procedure is complete.

UP00731,0000373-19-12AUG21

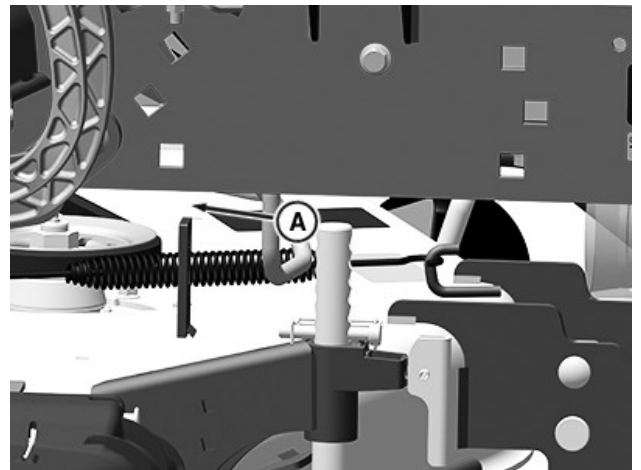
Adjusting Deck Height

1. Ensure that the mower deck is level.



LV29984—UN—04APR18

Mower Stop (2 - family tractor)



LVP11525—UN—15OCT20

Mower Stop (1 - family tractor)

A—Gap

2. Raise the mower deck fully and measure the mower stop-to-tractor frame gap (A) between the mower lift stop and the tractor frame. Compare the measurement to specification:

Specification

Mower Stop-to-Tractor Frame

Gap (A)—Distance. 3—13 mm
 0.125—0.5 in

3. **If the mower stop-to-tractor frame gap is to specification, the deck adjustment is complete.**

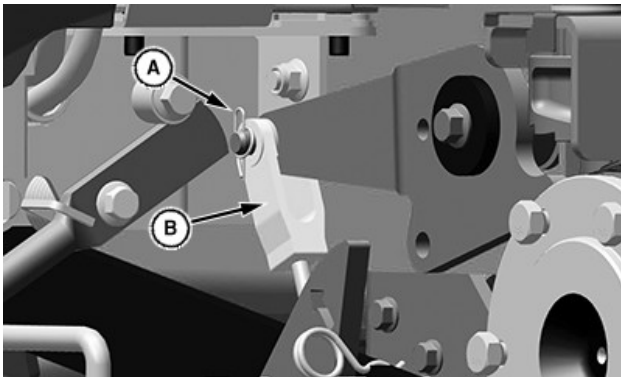
NOTE: If adjustments are needed beyond this point, perform the deck side-to-side and the front-to-rear procedures after the mower stop-to-tractor frame gap is successfully set.

If the mower stop-to-tractor frame gap cannot be achieved, the rockshaft linkage and or the lift strap linkage are out of adjustment. See your John Deere dealer or other service provider for the proper adjustment procedure.

4. If the mower stop-to-tractor frame gap is not to specification:

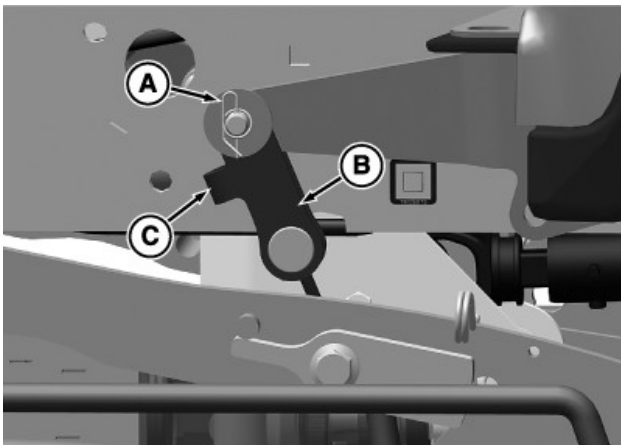
- Lower the mower deck to the ground.
- Stop the engine and remove key.
- Wait for the engine and all moving parts to stop before leaving the operator seat.

IMPORTANT: Avoid damage! For MY20—tractors, the protrusion (C) must face towards the front of the tractor to avoid damage to parts.



LV27024—UN—15DEC16

Turnbuckles (—MY19) Shown

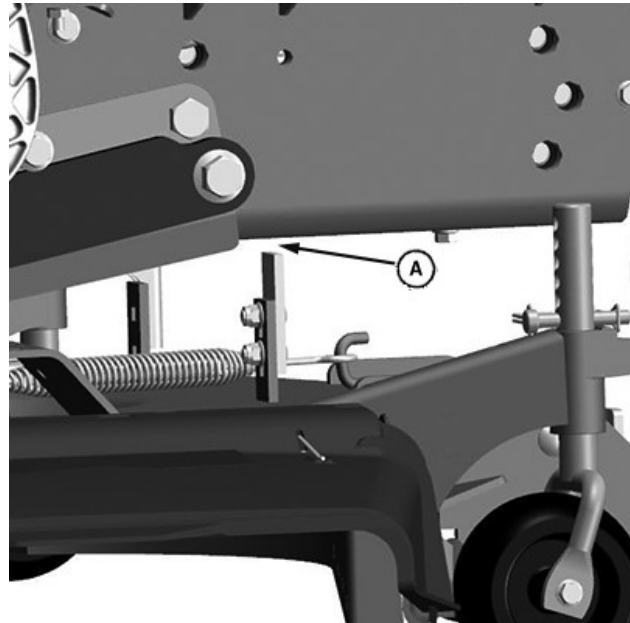


LV30785—UN—10AUG21

Turnbuckle (MY20—) Shown

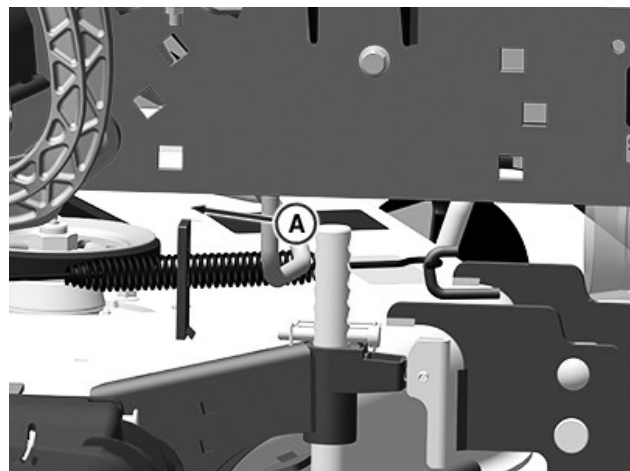
A—Retaining Pins
B—Turnbuckle
C—Protrusion

- Remove the retaining pins (A) and pivot pin securing both turnbuckles (B) to the lift arms.
- To reduce the gap, shorten the turnbuckle assemblies an equal number of turns.
- To increase the gap, lengthen the turnbuckle assemblies an equal number of turns.
- Install the turnbuckles on the lift arms.
- Raise the mower deck fully, stop engine, and remove key.



LV29984—UN—04APR18

Mower Stop (2 - family tractor)



LVP11525—UN—15OCT20

Mower Stop (1 - family tractor)

A—Gap

- Measure the mower stop-to-tractor frame gap (A) between the mower lift stop and the tractor frame. Compare the measurement to specification:

Specification

Mower Lift Stop-to-Tractor	
Frame Gap (A)—Distance.	3—13 mm 0.125—0.5 in

- j. Repeat steps a - i until mower stop-to-tractor frame gap is to specification.
5. Perform the side-to-side and the front-to-rear adjustment procedure.

- c. Install snap lock pin (B) in hole just above gauge wheel bracket.
- d. Repeat for remaining gauge wheels.

UP00731,000010D-19-09DEC16

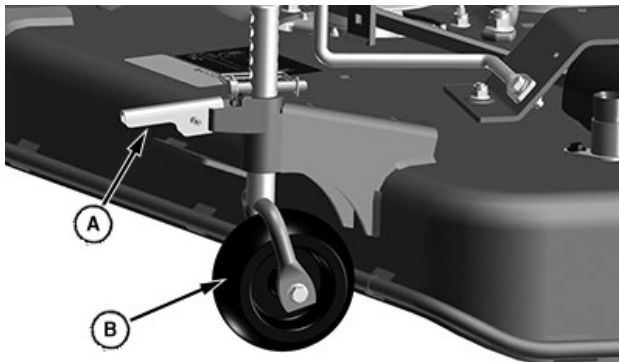
UP00731,000010D-19-21JUL25

Adjusting Mower Wheels

IMPORTANT: Avoid damage! If mower wheels are adjusted incorrectly, the mower deck can be damaged:

- **Wheels must not ride on ground supporting mower weight.**
- **Check wheel adjustment each time cutting height is changed.**

1. Park machine on a level surface, not on a slope.
2. Disengage mower blades.
3. Raise mower, turn the height-of-cut control to the desired cutting height and lower mower.
4. Lock park brake.
5. Stop engine and remove key.
6. Wait for engine and all moving parts to stop before leaving operator seat.
7. Set gauge wheel height:



LV27027—UN—09DEC16

A—Gage Wheel Lock
B—Lock Pin

- a. Release gauge wheel lock (A).
- b. Adjust wheel assembly to 9.5 mm (3/8 in) distance between gauge wheels and ground.

IMPORTANT: Avoid damage! Ensure that at least one hole remains above lock bracket. In extreme mowing conditions, retract wheels completely to avoid damage.

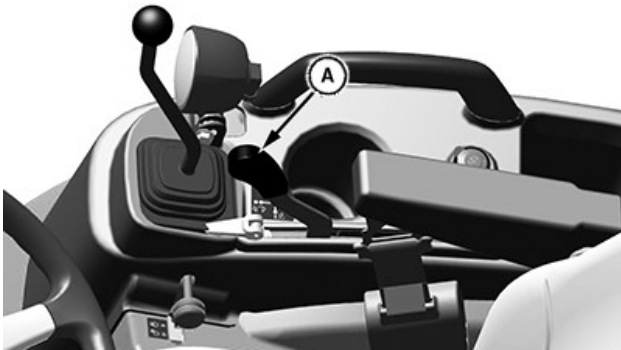
Operating

Raise and Lower Mower

The machine can be equipped with a mechanical or hydraulic mower lift control system. The height-of-cut control is the same for all systems. All controls are described below.

Mechanical Lift System

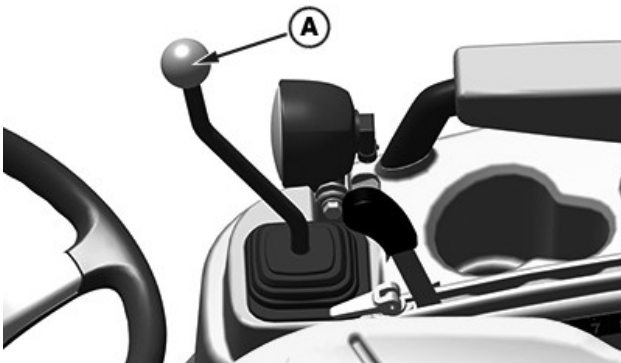
IMPORTANT: Avoid Damage when using the mechanical lift system. To prevent unintended operation, do not connect any implement or attachment to the three point hitch when the machine is being used for mowing operations.



A—Rock Shaft Lever

A mechanical mower lift kit is connected to the machine rock shaft and operates with the rock shaft control lever (A). See the machine Operator's Manual for operating instructions for your specific model.

Hydraulic Mower Lift System (If equipped)



Hydraulic Mower Lift

A—SCV Lever

A hydraulic mower lift system operates independently of the machine rockshaft and operates by the machine SCV lever (A).

To raise the mower:

1. Pull the SCV lever (A) to the left to raise the mower.
2. Make height-of-cut adjustment, if necessary.

To lower the mower:

Lower the mower by pushing the SCV lever slightly to the right. Avoid engaging the regeneration function, do not push the lever fully to the right.

Independent Hydraulic Mower Lift System (If equipped)



LV27149—UN—21DEC16

A—Mower Lift Switch

A hydraulic mower lift system operates independently of the machine rock shaft and is operated by the machine mower lift switch (A). See the machine Operator's Manual for operating instructions for your specific model.

To raise the mower:

1. Pull the mower lift switch up to raise the mower.
2. Push the mower lift switch down to lower the mower.

Third Function Hydraulic Mower Lift System (If equipped)



LV30373—UN—04OCT18

Third Function

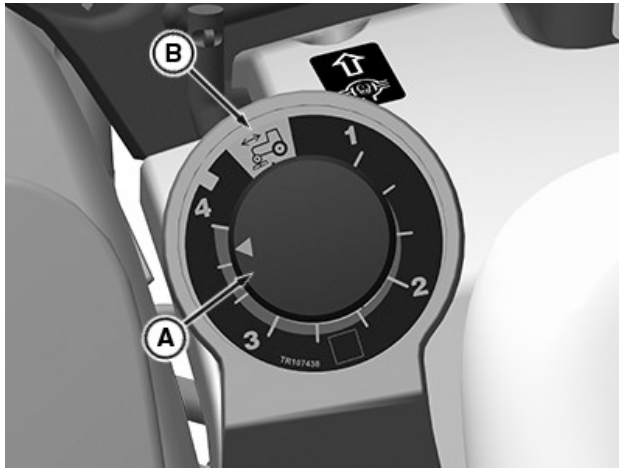
A third function SCV hydraulic mower lift system operates independently of the machine rockshaft and is operated by the machine third function button on the SCV lever (A). To raise and lower the mower deck, use the third function button.

UP00731,00005DF-19-26NOV18

Setting Height of Cut

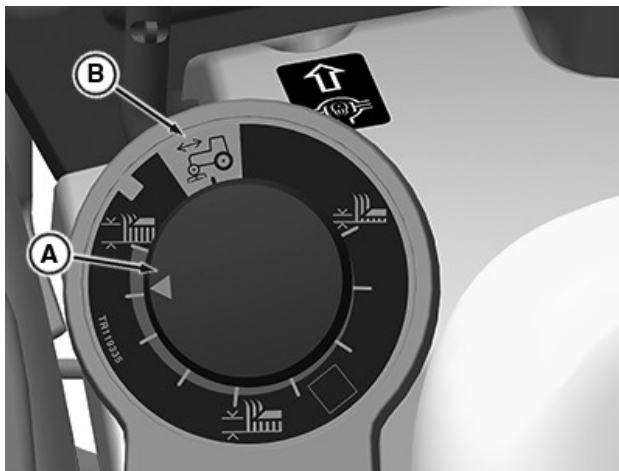
NOTE: The label on the height-of-cut knob can be either numeric or symbolic.

NOTE: The numbers on the height-of-cut dial are for reference only. They do not represent a one-to-one ratio between the dial and the deck cutting height.



LVP11308—UN—09SEP20

Numeric Label (1 - family shown, 2 - family is similar)



LVP11154—UN—19AUG20

Symbolic Label (1 - family shown, 2 - family is similar)

A—Height-of-Cut Control
B—Install Position

The mower height-of-cut is adjusted with the control (A) on the left side of the operator. Raise and hold the mower to its highest position using either type of the lift system and adjust the mower cutting height knob as follows:

- Install (B) - Turn the control to this position to lower the mower lift mechanism whenever removal or installation of the mower is required.

NOTE: Do NOT lower lift system after adjusting the height-of-cut to the desired level.

- Height-of-Cut Range 1—4 or Low to High - Turn the control to any position in this range to select the desired height-of-cut.

UP00731,000010B-19-15OCT20

Engaging Mower

1. Review instructions on using mid-PTO included in your machine operator's manual.
2. Follow machine operator's manual instructions to engage mid-PTO and mower.

UP00731,0000069-19-26AUG13

Unplugging Mower

CAUTION: Avoid injury! Do not attempt to unplug attachment with machine running.

- Rotating blades are dangerous. Shut off the engine and remove the key before getting off the seat to inspect the machine and attachment.
- Thrown objects can cause serious injury. Make sure all machine parts are stopped before raising hopper top or removing chutes.

1. Park machine safely. Wait for all moving parts to stop before getting off to inspect machine.
2. Check under mower deck and discharge chute for debris.
3. Remove debris and check for proper operation.

UP00731,000006A-19-06AUG15

Transporting Mower on Machine

Raise mower to the highest position possible on the mower cutting height knob for transport.

DN39857,0000318-19-15OCT20

Transporting Machine on Trailer

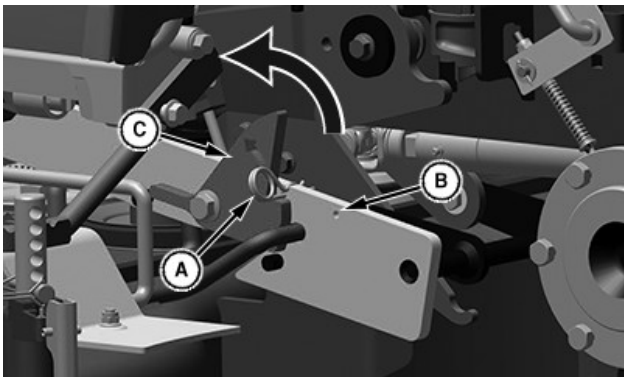
Refer to machine operator's manual for transporting information.

UP00731,0000377-19-30JUL15

Removing and Storing

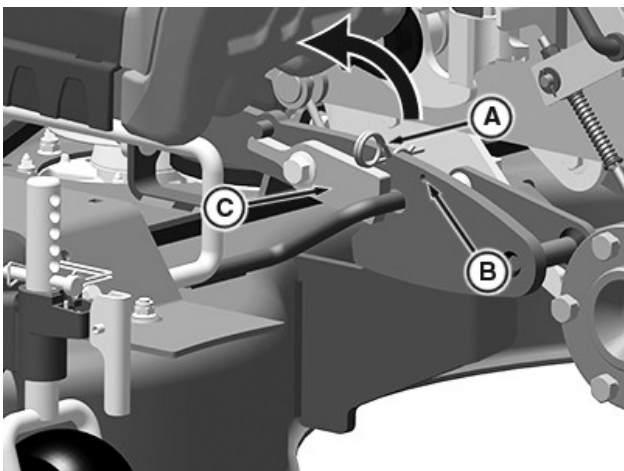
Remove Mower

1. Park machine on a level surface, not on a slope.
2. Lock park brake.
3. Disengage mower blades.
4. Ensure that tractor can be pulled forward to deposit mower deck and that sufficient room exists to back fully off deck before turning tractor wheels.
5. Place tractor in A range four-wheel drive.
6. Fully raise mower deck and release gauge wheel locks.



LV27146—UN—21DEC16

Rear Lock (—MY19)



LVP11515—UN—15OCT20

Rear Lock (MY20—)

A—Lock Pin
B—Storage Hole
C—Rear Lock

7. Remove lock pin (A) and place in the rear storage hole (B).
8. Fully lower mower deck to ground.

NOTE: To make sure all the pressure is off the rear lock, set the park brake after lowering the deck and slightly press the forward pedal.

9. Release rear lock (C) by pushing it forward in

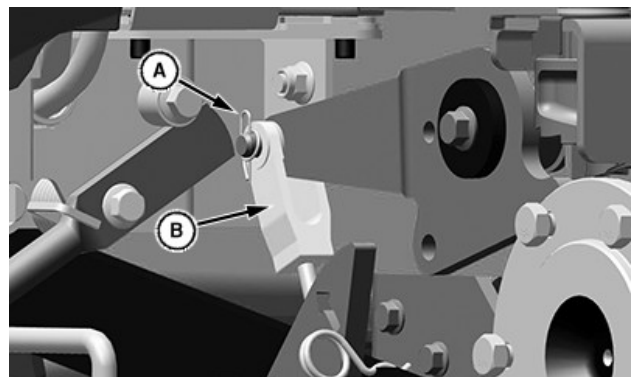
direction of arrow. If lock sticks, pull mower deck rearward slightly on the side with the stuck lock and push lock forward.

10. Slowly back tractor straight off the mower deck.

11. If mid PTO is used for other applications:

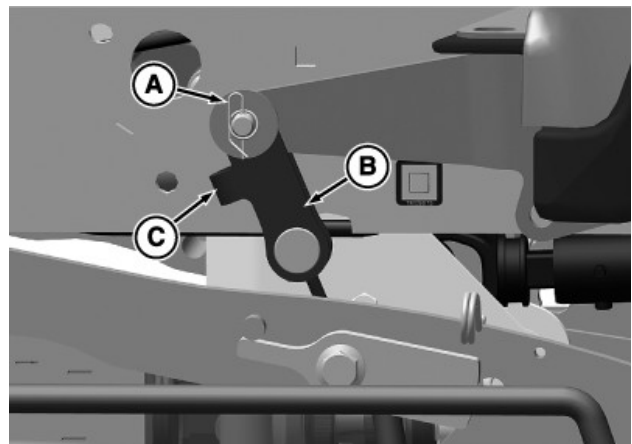
- a. Lock lift link in transport position.
- b. Remove quick connect driveshaft from mid PTO by pulling collar.

IMPORTANT: Avoid damage! For MY20—tractors, the protrusion (C) must face towards the front of the tractor to avoid damage to parts.



LV27024—UN—15DEC16

Turnbuckle (—MY19) Shown

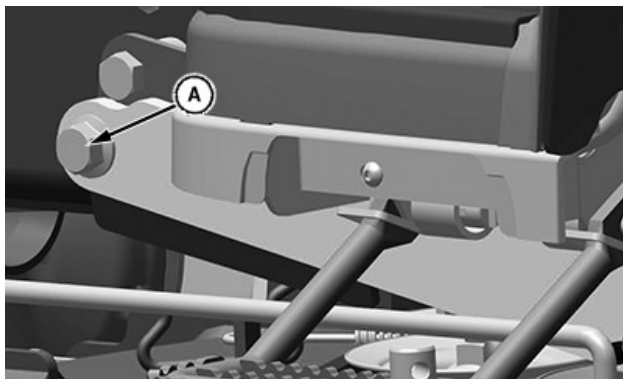


LV30785—UN—10AUG21

Turnbuckle (MY20—) Shown

A—Retaining Pins
B—Turnbuckle
C—Protrusion

- c. Remove the retaining pins (A) from the left and right rear turnbuckles (B). Remove turnbuckles from mid rockshaft.



LV27147—UN—21DEC16

A—Bolt

- d. Remove bolt (A) and bushing that is securing the rear lift link to the bracket on both sides. Remove lift link from tractor.
- e. Keep all hardware attached to the rear lift link and store for later use.

UP00731,0000A10-19-12AUG21

Storing Mower

⚠ CAUTION: Blades are sharp. Do not store mower deck on machine or removed from machine with blades exposed. Store mower deck laying flat on ground.

1. Remove mower from machine. (If machine is to be stored with mower on machine, refer to Storing Machine in your machine's operator's manual.)
2. Clean underside of mower with water pressure and scraper.
3. Inspect blades:
 - Have dull blades sharpened and balanced.
 - Replace damaged blades.
4. Clean top of deck and the area around all of the sheaves.
5. Check condition of belt. If necessary, get a new belt. Do not install new belt until you remove mower from storage.
6. Repair or replace any worn or damaged parts.
7. Apply touch-up paint where needed to prevent rust.
8. Lubricate grease points.
9. Release belt tension.
10. Store mower in a clean, dry place.
11. Put a waterproof cover over mower, if you store the mower outside.

UP00731,0000063-19-26AUG13

Service

Service Intervals

Every 10 Hours

- If operating in dry conditions, clean debris from mower.

Every 25 Hours

- Lubricate spindles
- Lubricate driveshaft
- Inspect mower blades
- Inspect mower belt

Every 100 Hours

- Check gearbox oil level
- Wash mower

Every 500 Hours

- Change gearbox oil

UP00731,000006C-19-26AUG13

Grease

IMPORTANT: Avoid damage! Use recommended John Deere greases to avoid component failure and premature wear. The recommended John Deere greases are effective within an average air temperature range of -29 to 135 degrees C (-20 to 275 degrees F). If operating outside that temperature range, contact your Servicing dealer or other service provider for a special-use grease.

The following greases are preferred:

- John Deere Multi-Purpose SD Polyurea Grease
- John Deere Multi-Purpose HD Lithium Complex Grease

If not using any of the preferred greases, be sure to use a general all-purpose grease with an NLGI grade No.2 rating.

Wet or high speed conditions may require use of a special-use grease. Contact your Servicing provider for information.

UP00731,000006E-19-15OCT25

Gear Oil

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

John Deere GL-5 Gear Lubricant is recommended.

Other oils may be used if they meet one or more of the following:

- API Service Classification GL-5.
- Military Specification MIL-L-2105D.
- Military Specification MIL-L-2105C.
- Military Specification MIL-L-2105B.

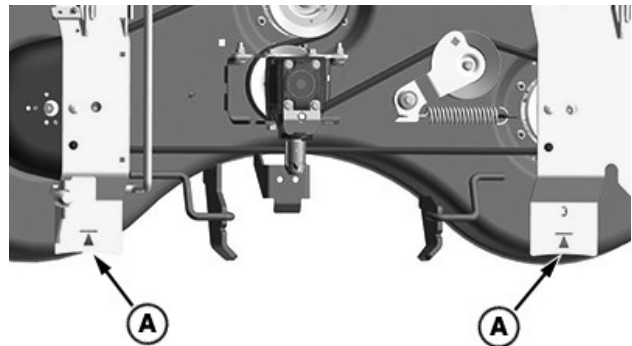
Oils meeting Military Specification MIL-L-10324A may be used as arctic oils.

UP00731,000006F-19-26AUG13

Service the Mower Deck Using the Load-N-Go Ramps

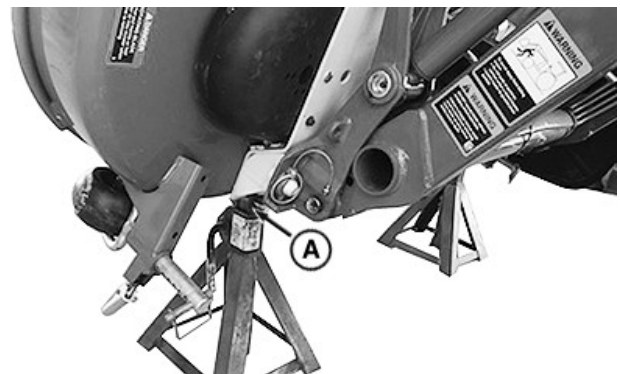
⚠ CAUTION: Do not walk or perform service under a raised loader, bucket or attachment unless it is securely blocked or held in position.

1. Start tractor engine.
2. With the mower deck attached to the loader arms, raise the mower deck off the ground.
3. Retract the cylinders to angle the mower deck in a vertical position.



LV30404—UN—14NOV18

Jacking Point



LV30397—UN—01NOV18

Jacking Point

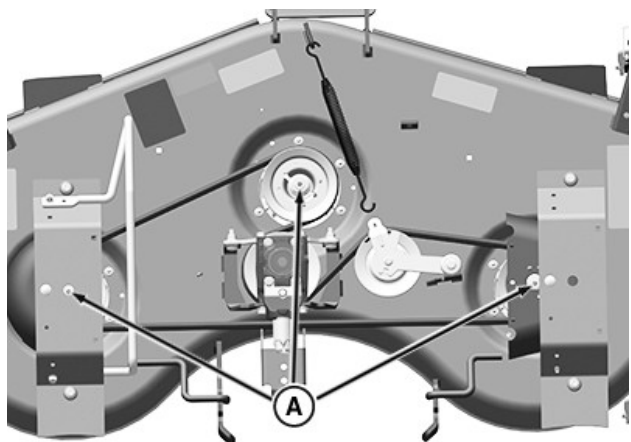
A—Jacking Point

4. Place jack stands under the deck to align with the jacking points (A) location.

5. Slowly lower the mower deck onto the jack stands.
6. Move the loader SCV to the float position.

UP00731,00005F3-19-15NOV18

Lubricating Mower

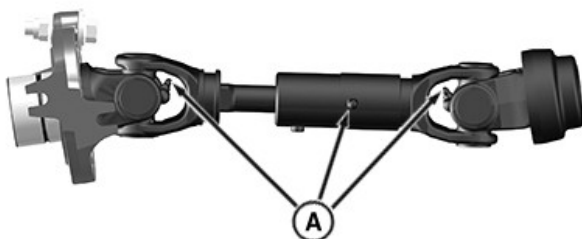


54D Mower Shown

LVP11526—UN—15OCT20

A—Grease Fittings on Sheaves

1. Lubricate three grease fittings (A) on sheaves with the recommended grease.



A—Grease Fittings on Mid PTO

LVP11527—UN—15OCT20

2. Lubricate three grease fittings (A) on mid PTO with the recommended lubricant.

UP00731,0000378-19-15OCT20

Servicing Gearbox

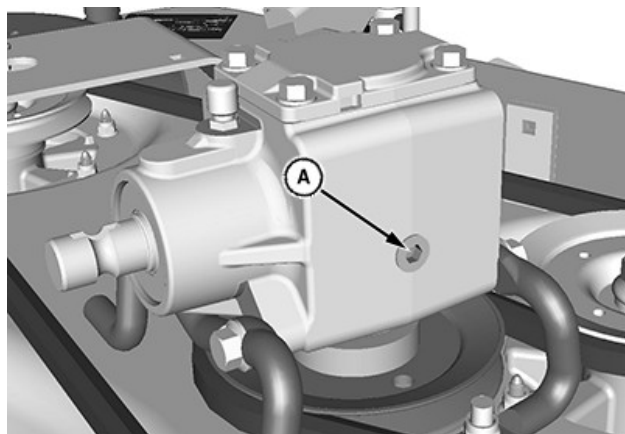
Checking Oil Level

1. Remove plug from one side of gearbox.

2. Oil level should be even with bottom edge of plug hole.
3. If oil is low, add recommended oil.
4. Install plug.

Changing Oil

1. Remove gearbox bracket with gearbox. Refer to assembly section for additional information.



LV24016—UN—04AUG15

A—Plug

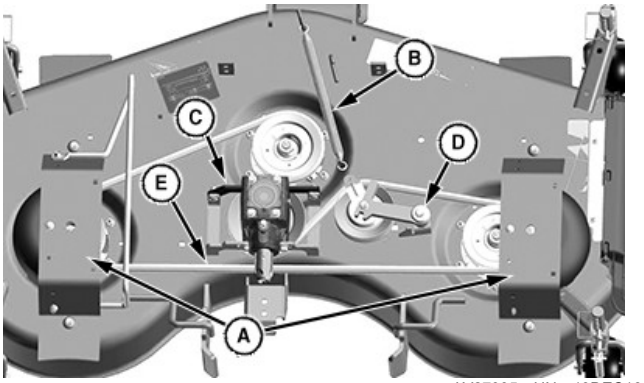
2. Remove plug (A) on both sides of gearbox.
3. Lift and turn gearbox on side to drain oil from gearbox.
4. Route belt around gearbox sheave and lower gearbox onto deck. Secure gearbox bracket to deck. Refer to assembly section for additional information.
5. Add recommended oil to bottom edge of plug hole in gearbox.
6. Install plugs.

UP00731,0000379-19-30JUL15

Servicing Mower Belt

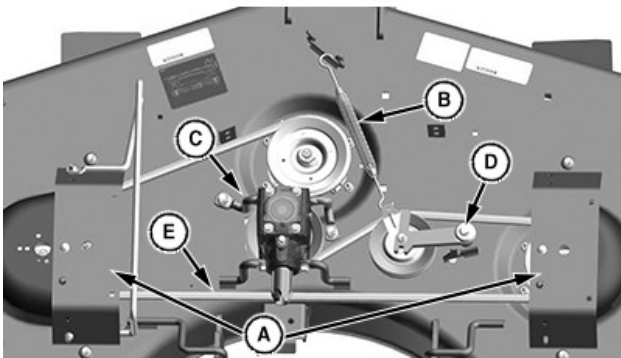
Removing Belt

1. Remove mower from the machine.
2. Clean area around and under ramps.



54D Mower (—MY19) Shown, MY20— is Similar

LV27035—UN—13DEC16



60D Mower (—MY19) Shown, MY20— is Similar

LV27034—UN—13DEC16

A—Ramps
B—Spring
C—Gearbox Support
D—Washer
E—Belt

3. Remove both drive-over ramps (A) with shields.
4. Remove spring (B) to relieve belt tension.
5. Remove the rear gearbox support (C).
6. Remove the dust cap, snap ring, and flat washer (D) retaining the tensioner pulley assembly and remove the pulley assembly.
7. Remove belt (E) from mower.

Installing Belt

1. Install belt around sheaves and route as shown.
2. Install tensioner pulley assembly and secure using a flat washer, snap ring, and dust cap (D).
3. Install the rear gearbox support (C) with original hardware.
4. Install tensioner spring (B).
5. Install the left and right drive-over ramps (A) with shields.

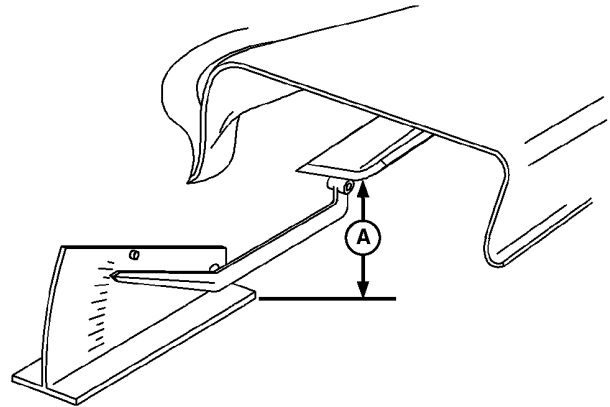
UP00731,000037A-19-15OCT20

Check for Bent Mower Blades

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

Replace blades if defective. Never straighten or weld them.

1. Park machine on a level surface, not on a slope.
2. Disengage mower blades.
3. Fully raise the mower.
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. Block the mower.



LV18692—UN—20AUG13

A—Distance - Blade to Level Surface

9. Measure the distance (A) from blade tip to level surface with a ruler or a leveling gauge available at your John Deere dealer.
10. Rotate blade 180° and measure the distance between other end of blade and surface.
11. Check all blades. Install new blade if difference between measurements is more than 3 mm (1/8 in.).

UP00731,000011A-19-13DEC16

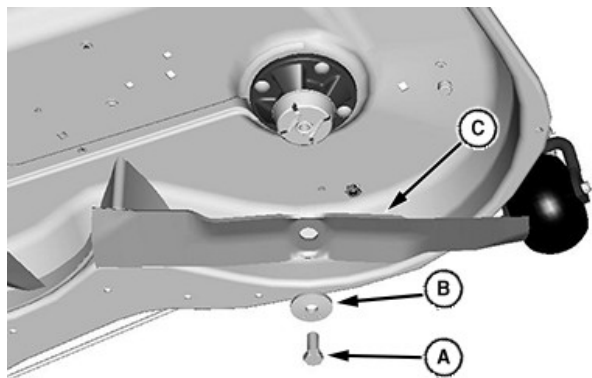
Remove and Install Mower Blades

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

Replace blades if defective. Never straighten or weld them.

Removing Mower Blades

1. Park machine safely.
2. Remove mower from machine.
3. Use a suitable lifting device to raise mower to gain access to blades.
4. Insert wood block between blade and mower to prevent blade from turning when removing bolt.

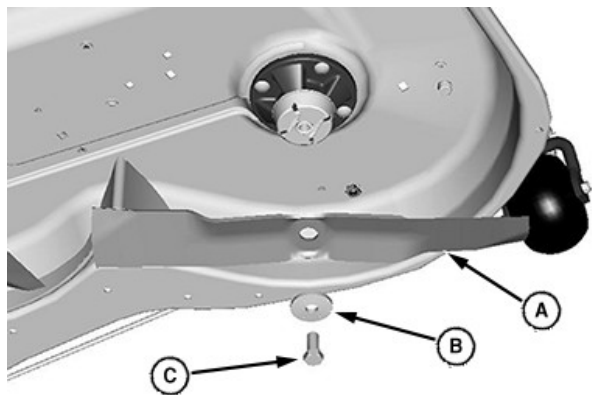


LV24019—UN—04AUG15

A—Bolt
B—Washer
C—Blade

5. Remove bolt (A), washer (B) and blade (C).

Installing Mower Blades



LV24021—UN—05AUG15

54D Deck Shown

A—Blade
B—Washer
C—Bolt

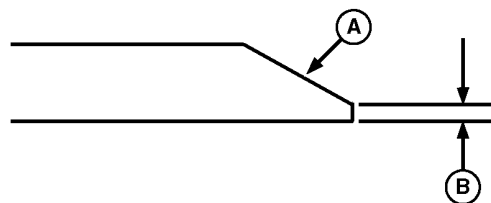
1. Install blade (A) with cutting edge toward the ground, washer (B) and bolt (C).
2. Insert wood block between blade and mower to prevent blade from turning when tightening bolt.
3. Tighten bolt to 120 N•m (90 lb-ft)

UP00731,0000117-19-13DEC16

Sharpen Blades

CAUTION: Avoid injury! Rotating blades are dangerous. Before adjusting or servicing mower:

- Disconnect spark plug wire(s) or battery negative (-) cable to prevent engine from starting accidentally.
- Always wear gloves when handling mower blades or working near blades.



LV18695—UN—20AUG13

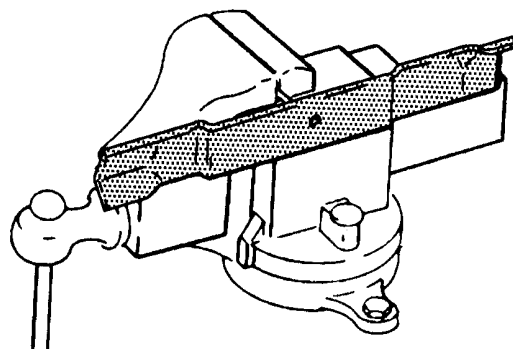
A—Bevel
B—Cutting Edge

1. Sharpen blade with grinder, hand file or electric blade sharpener.
 - Keep original bevel (A) when grinding..
 - Blade should have 0.40 mm (1/64 in.) cutting edge (B) or less.
2. Balance blade before installing.

UP00731,0000118-19-13DEC16

Balance Blades

1. Clean the blade.



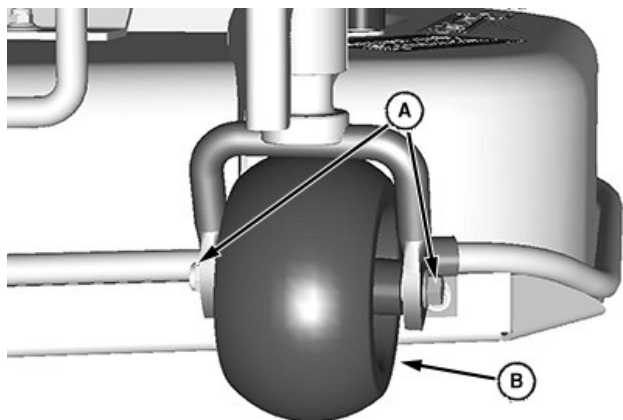
LV18696—UN—20AUG13

2. Put blade on a nail in a vice or in a vertical wall stud. Turn blade to horizontal position. If blade is not balanced, heavy end of blade will drop.
3. Grind bevel of heavy end. Do not change blade bevel.

UP00731,0000119-19-13DEC16

Replacing Wheels

1. Park machine on a level surface, not on a slope.
2. Disengage mower blades.
3. Fully raise mower.
4. Lock park brake.
5. Stop engine.
6. Remove key.
7. Wait for engine and all moving parts to stop before leaving operator seat.



LV24023—UN—04AUG15

A—Wheel Hardware
B—Wheel

8. Remove wheel hardware (A).

IMPORTANT: Avoid damage! Do not overtighten wheel hardware. Overtightening hardware will cause damage to bushing.

9. Install new wheel (B) with hardware.

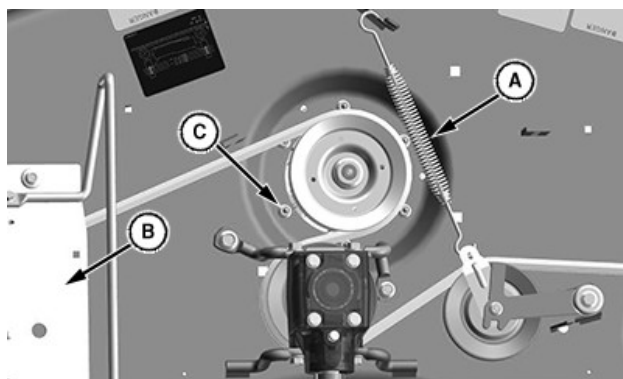
UP00731,000037C-19-06AUG15

C—Bolt

1. To relieve belt tension remove spring (A).
2. If necessary, remove drive over the ramp (B).
3. Remove six bolts (C) on the sheave to be replaced.
4. Replace sheave and secure with original hardware.
5. Replace ramps, if removed.

UP00731,0000114-19-15OCT20

Replace Sheaves



LV27036—UN—13DEC16

Mower Deck (—MY19) Shown, MY20 is Similar

A—Spring
B—Ramp

Troubleshooting

Use Troubleshooting Chart

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

and you are still experiencing the problem, see your John Deere distributor or other service provider.

KN52281,1003F58-19-15OCT25

When you have checked all the possible causes listed

Mower Deck Troubleshooting

IF	Check
Discharge chute plugged	• Belt(s) installed incorrectly. • Grass too wet. • Grass too long. • Engine should be at full throttle. • Rear of deck too low.
Patches of grass uncut	• Travel speed too fast. • Engine should be at full throttle. • Dull blades. • Cutting height set too high.
Belt slipping	Debris around sheaves. Worn belt. Mower plugged.
Too much vibration	Debris on mower deck or around sheaves. Damaged drive belt. Damaged sheaves or sheaves out of alignment. Blades out of balance.
Uneven cut	Check procedures on Adjusting Mower Level Side-to-Side and Front-to-Rear. Travel speed too fast. Blades are dull. Check tire pressure. Adjust mower wheels.
Mower stops when reverse foot pedal is depressed and attachment is engaged	Normal condition. See the reverse implement option information in your machine operator manuals.
Blades scalping grass	Turning speed too fast. Ridges in terrain. Rough or uneven terrain. Low tire pressure. Cutting too low. Bent blade(s). Adjust mower wheels.
Mower loads down tractor	Turning speed too fast. Ridges in terrain. Rough or uneven terrain. Low tire pressure. Cutting too low. Bent blade(s). Adjust mower wheels.
Uneven clipping distribution	Cutting height set too low. Mowing too fast. Grass too wet.

UP00731,0000381-19-06AUG15

Connecting Mower Deck Troubleshooting

IF	Check
Rear draft arms are not fully lowered	Height of cut control should be in the install position, use SCV or rockshaft control lever to raise and lower deck. Mower lift link is not contacting any step on height stop cam. Refer to adjusting maximum height-of-cut for additional information.
Rear latch is not functioning properly	Rear lock assembly should be in locked position prior to driving over mower. Rear lock assembly only stops in the lock and unlock position. NOTE: If lock assembly stops or binds in-between positions, lubrication at pivot point may be required. Rear lock assembly and surrounding components are not deformed or bent. Rear lift arm rods are completely lowered on both sides of mower. This function is controlled by the SCV or rockshaft control lever. Refer to installing mower deck for additional information.
If mower and ground conditions are not consistent	Ensure mower is parked on level hard surface. If parking on level hard surface is not possible, place a board under front of mower. Gage wheels in unlock position. Mower is centered on the tractor. Driveshaft connection is aligned properly (for AutoConnect driveshaft only). Driveshaft is properly installed in hanger (for standard driveshaft only). If equipped with front weights, remove before installation. Replace weights when complete. Refer to installing mower deck for additional information.
Improper front draft arm engagement	At least a 2-3mm (.08-.10 in) gap at front draft link and frame hook. Adjustment to draft link nuts may be required. If locks are not releasing or locking easily, gap at front draft link and frame hook may need to be increased. Front draft link yoke is properly oriented. Front draft link is at proper height and not dragging on bottom of frame hook. Refer to installing mower deck for additional information.

UP00731,0000387-19-06AUG15

Specifications

Mower Deck Specifications

54D Mower Deck

Mower Type	Mulch or Side Discharge
Cutting Blades	3
Overall Width	1.74 m (68.5 in.)
Overall Length	1.75 m (69 in.)
Cutting Height ^a	2.5 - 10.2 cm (1 - 4 in.)
Cutting Width	1.37 m (54 in.)
Mower Weight	89 kg (197 lb.)
Blade Bolt Torque	68 N·m (50 lb.-ft.)
Gearbox Oil Capacity	136 mL (4.6 oz.)

^aMay vary depending on tire size.

60D Mower Deck

Mower Type	Mulch or Side Discharge
Cutting Blades	3
Overall Width	1.85 m (72.8 in.)
Overall Length	1.82 m (71.6 in.)
Cutting Height ^a	2.5 - 10.2 cm (1 - 4 in.)
Cutting Width	1.52 m (60 in.)
Mower Weight	117 kg (258 lb.)
Blade Bolt Torque	122 N·m (90 lb.-ft.)
Gearbox Oil Capacity	136 mL (4.6 oz.)

^aMay vary depending on tire size.

UP00731,0000115-19-05JAN17

Index

C		Mower on Machine	
Compatibility		Transporting	30-2
Product	00-1	Mower Wheels	
D		Adjusting	25-6
Deck Height		Install	15-1
Adjusting	25-4	Replacing	40-5
Discharge Chute		P	
Installation	15-1	Preparing Machine	25-1
E		S	
Equipment, Required	15-1	Safety	
G		Protect against noise	10-2
Gear Oil	40-1	Service Mower Deck Using the Load-N-Go Ramps ...	40-1
Gearbox		Setting of Cut, Adjusting	30-2
Servicing	40-2	Sheaves	
Grease	40-1	Replace	40-5
H		Signal words, understand	10-1
Hydraulic Hose for Mower Lift, Connect	20-3	Specifications	60-1
I		T	
Identification Numbers	00-1	Troubleshooting Chart, Use	50-1
Intervals			
Service	40-1		
L			
Labels			
Safety	05-1		
M			
Machine			
Transporting	30-2		
Mower			
Engaging	30-2		
Installation	20-1		
Lubricating	40-2		
Raise and Lower	30-1		
Remove	35-1		
Storing	35-2		
Unplugging	30-2		
Mower Belt			
Servicing	40-2		
Mower Blades			
Remove and Install	40-3		
Mower Blades, Balance	40-4		
Mower Blades, Check for Bent	40-3		
Mower Blades, Sharpen	40-4		
Mower Deck			
Troubleshooting	50-1, 50-2		
Mower Level			
Adjusting - Front to Rear	25-2		
Adjusting - Side to Side	25-1		

