# **JOHN DEERE AG & TURF DIVISION** MT42C Multi-Tool 42 in. Combo LP39089 OMM165247 E7 **OPERATOR'S MANUAL** JOHN DEERE **Original Instruction** All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice. COPYRIGHT® COPYRIGHT® 2012 Deere & Co. John Deere Ag & Turf Division All rights reserved Previous Editions COPYRIGHT®

North American Version Litho in U.S.A.

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# Introduction

# **Using Your Operator's Manual**

Read this entire operator's manual, especially the safety information, before operating.

This manual is an important part of your machine. Keep all manuals in a convenient location so they can be accessed easily.

Use the safety and operating information in this manual to operate the machine safely and correctly. Use the service information to make any needed adjustments and routine service to your machine.

If you have any questions or concerns with the assembly, installation, or operation of this machine, see your local John Deere dealer or call John Deere Special Services at 1-800-448-9282 for assistance.

# **Product Identification**

# **Product Compatibility**

This multi-purpose tool is designed for use with lawn tractors and lawn and garden tractors.

# **Record Purchase Information**

Record your purchase information in the spaces provided below. DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

# Safety

# Read Safety in Machine Operator's Manual

Read the general safety operating precautions in your machine operator's manual for additional safety information.

# **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.

# Operation

• Only allow responsible adults, who are familiar with the instructions to operate the machine. Local restrictions may restrict the age of the operator.

• Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Replace faulty silencers. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.

• Be sure all drives are in neutral and parking brake is locked before starting engine. Only start engine from the operator's position.

• Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.

• Check brake action before you operate. Adjust or service brakes as necessary.

• Stop machine if anyone enters the area.

• If you hit an object or if abnormal vibration occurs, stop and inspect the machine. Make repairs before you operate. Keep machine and attachments properly maintained and in good working order.

• Do not leave machine unattended when it is running.

• Only operate during daylight or with good artificial light.

• Raise the aeration head and stop tining action before crossing surfaces other than grass.

• Use only accessories and attachments approved by the manufacturer of the machine. Keep safety labels visible when installing accessories and attachments.

• Do not operate machine if you are under the influence of drugs or alcohol.

• Check before each use that operator presence controls are functioning correctly. Test safety systems. Do not operate unless they are functioning correctly.

• Do not wear radio or music headphones. Safe service and operation require your full attention.

• Disengage drive to attachments when transporting or not in use.

• Reduce the throttle setting during engine run-out and, if the engine is provided with a fuel shut-off valve, turn the fuel off at the conclusion of mowing.

• When machine is left unattended, stored, or parked, lower the aerati0n head unless a positive mechanical lock is used.

# **Parking Safely**

- 1. Stop machine on a level surface, not on a slope.
- 2. Disengage PTO.
- Lock park brake.
- 4. Stop engine.
- 5. Remove key.
- 6. Install support legs and lower attachment completely.

7. Before you leave the operator's station, wait for engine and all moving parts to stop.

# Be Familiar with Work Area

- Identify locations of buried irrigation and electrical cables.
- Identify locations of sprinkler heads, fairway markers and other obstacles.

# Avoid Tipping

- Do not operate where machine could slip or tip.
- Stay alert for holes and other hidden hazards in the terrain.
- Operate up and down a hill not across. Be careful when you change direction on a slope.
- Keep away from drop-offs.
- Slow down before you make a sharp turn or operate on a slope.

# **Protect Children**

• Tragic accidents can occur if the operator is not alert to the presence of children. Keep children indoors when the machine and attachment are operated and under the watchful care of another responsible adult.

• Never assume that children will remain where you last saw them. Stay alert to the presence of children. Turn the machine off if a child enters the work area.

• Do not let children or an untrained person operate the machine.

• Do not carry or let children ride on any attachment or machine even with the attachment off. Do not tow children in a cart or trailer.



# 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.



# **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.



# Avoid Injury from Moving Parts

• Keep hands, feet, clothing and other objects away from moving parts.

• Do not attempt to remove any obstruction from tine area while aerator is in motion.

• Keep hands and feet away from the tine area while the engine is running. When the engine is running, tining action will begin as soon as the aeration head begins to lower.

# **Practice Safe Maintenance**

• Only qualified, trained adults should service this machine.

• Understand service procedure before doing work. Keep area clean and dry.

• Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.

• Never lubricate, service or adjust the machine or attachment while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.

• Keep hands, feet, clothing, jewelry, and long hair away from any moving parts, to prevent them from getting caught.

• Lower any attachment completely to the ground or to an existing attachment mechanical stop before servicing the attachment. Disengage all power and stop the engine. Lock park brake and remove the key. Let machine cool.

• Disconnect battery or remove spark plug wire (for gasoline engines) before making any repairs.

• Before servicing machine or attachment, carefully release pressure from any components with stored energy, such as hydraulic components and springs.

• Release hydraulic pressure by lowering attachment or cutting units to the ground or to a mechanical stop and move hydraulic control levers.

• Securely support any machine or attachment elements that must be raised for service work. Use jack stands or lock service latches to support components when needed.

• Never run engine unless park brake is locked.

• Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Replace all worn or damaged safety and instruction decals.

• Check all hardware at frequent intervals to be sure the equipment is in safe working condition.

• Do not modify machine or safety devices. Unauthorized modifications to the machine or attachment may impair its function and safety.

# 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.

# Caution 42424



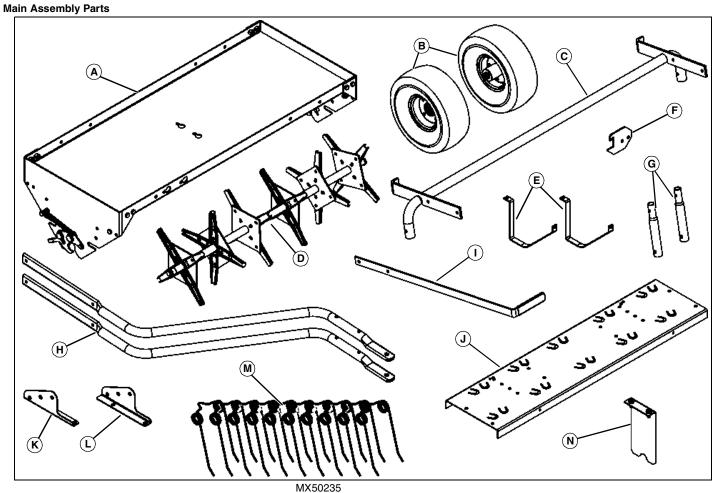
To avoid injury, do not ride on platform

Platform max weight: 100 lb (45 kg)

# Assembly

Parts in Kit

# Assembly

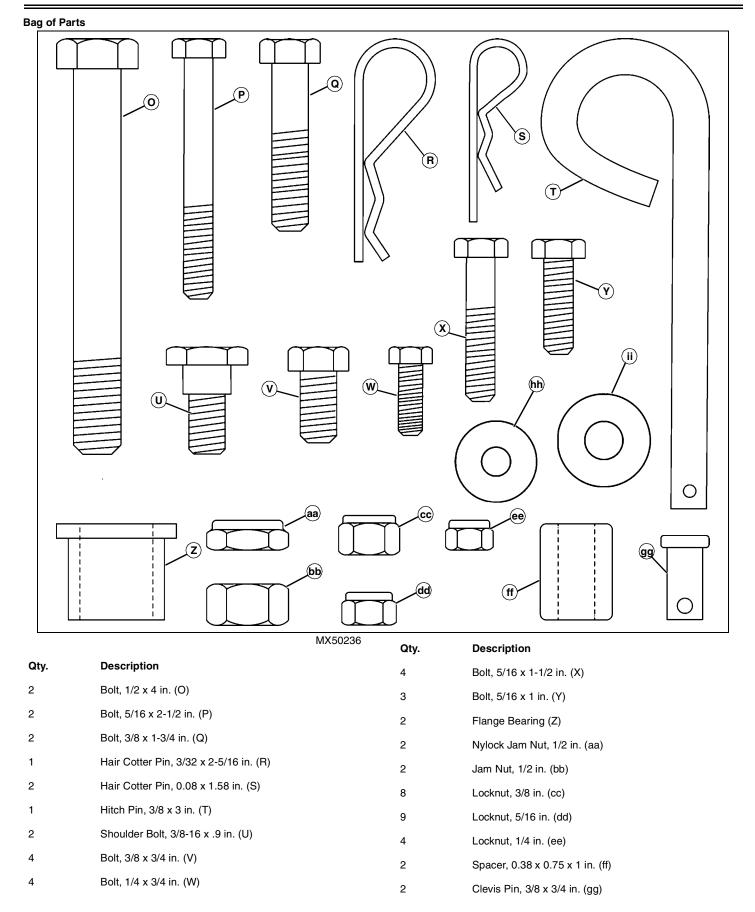


MX	50	2

Qty.	Description
1	Platform Assembly (A)
2	Wheels (B)
1	Lift Tube Assembly (C)
1	Aerator Attachment (D)
2	Skid Gauge (E)
1	Lift Handle Catch (F)
2	Lower Lift Tube (G)

- 2 Hitch Tube (H)
- Transport Handle Bar (I) 1
- 1 Tine Spring Shield (J)
- Right Hand Bracket (K) 1
- Left Hand Bracket (L) 1
- 10 Spring (M)
- 1 Center Brace (N)

# Assembly



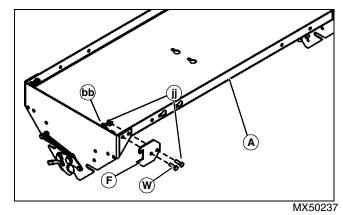
# Qty. Description

- 2 Washer, 5/16 in. (hh)
- 2 Washer, 3/8 in. (ii)

# **Tools Required for Assembly**

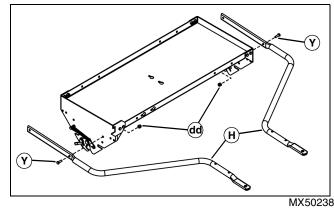
- (2) 3/4" Wrench
- (2) 1/2" Wrench
- Screwdriver

# **Assemble Platform**

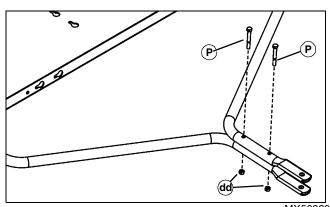


1. Remove the bolt and nylock nut (jj) from the front right corner of the platform assembly (A).

2. Attach the transport handle bar catch (F) to the front holes of the platform assembly using the bolt and nylock nut removed in Step 1,  $1/4 \times 3/4$  in. bolt (W) and 1/2 in. jam nut (bb). Tighten jam nut.

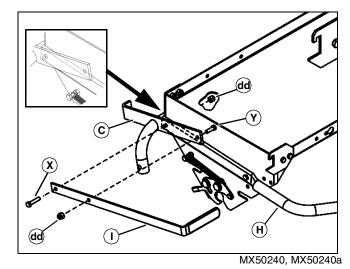


3. Attach the hitch tubes (H) to the third hole from the front of the platform assembly using two  $5/16 \times 1$  in. bolts (Y) and 5/16 in. locknuts (dd). Do not tighten yet.



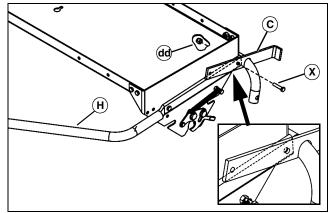
MX50239

4. Secure ends of the hitch tubes together using two 5/16 x 2-1/2 in. bolts (P) and 5/16 in. locknuts (dd). Do not tighten yet.



5. Attach the lift tube assembly (C), the transport handle bar (I), and the hitch tube (H) to the rear hole on the right side of the platform using a 5/16 x 1-1/2 in. bolt (X) and 5/16 in. locknut (dd). Tighten the locknut then loosen 1/2 turn.

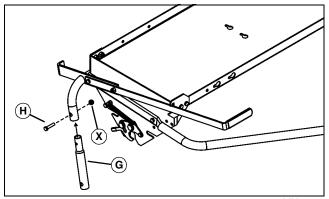
6. Secure top hole of the transport handle bar to the top hole of the lift tube assembly with a  $5/16 \times 1$  in. bolt (Y) and 5/16 in. locknut (dd). Tighten locknut.



MX50241, MX50241a

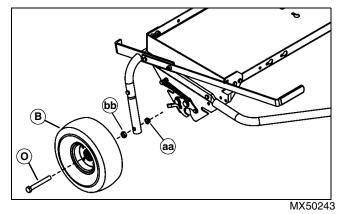
7. Attach the lift tube assembly (C) and the hitch tube (H) to the rear hole on the left side of the platform using a  $5/16 \times 1-1/2$  in. bolt (X) and 5/16 in. locknut (dd). Tighten the locknut then loosen 1/2 turn.

8. Tighten nuts and bolts not tightened earlier.



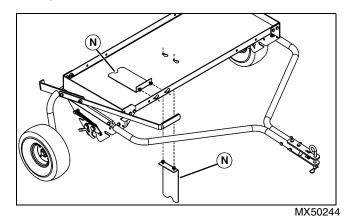
MX50242

9. Attach the lower lift tubes (G) to the lift tube assembly using two 5/16 x 1-1/2 in. bolts (X) and 5/16 in. locknuts (dd). Tighten locknuts.



10. Attach the wheels (B) to lift tube assembly using a 1/2 x 4 in. bolt (O), a 1/2 in. jam nut (bb) placed between the wheel and the lift tube assembly and 1/2 in. nylock jam nut (aa) for each wheel.

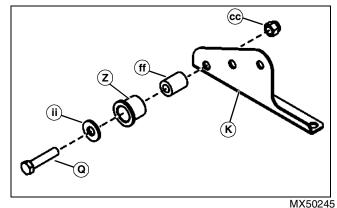
11. Tighten the 1/2 in. jam nut and 1/2 in. nylock jam nut so that the wheel turns freely on the bolt.



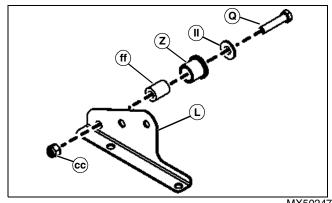
12. Attach the center brace (N) to the bottom of the platform to use the plug aerator. Attach the center brace to the front of the platform to use the thatcher. Tighten the bolts.

# **Assemble Thatcher**

NOTE: The spacer (ff) fits inside the bushing (Z).

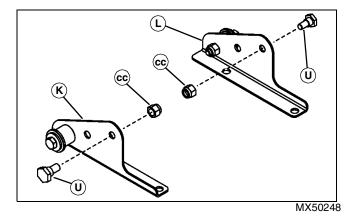


1. Assemble a 3/8 x 1-3/4 in. bolt (Q), 3/8 in. washer (ii), flange bearing (Z), spacer (ff), and 3/8 in. locknut (cc) to the right hand bracket (K) as shown. Tighten nylock nut.

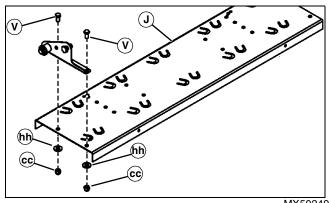


MX50247

2. Assemble a 3/8 x 1-3/4 in. bolt (Q), 3/8 in. washer (ii), bushing (Z), spacer (ff), and 3/8 in. locknut (cc) to the left hand bracket (L) as shown. Tighten nylock nut.

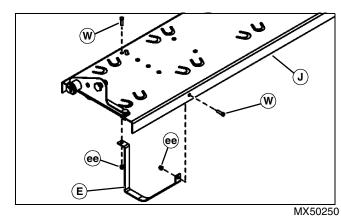


3. Assemble a 3/8 x 0.9 in. shoulder bolt (U) and 3/8 in. locknut (cc) to the right hand bracket (K) and left hand bracket (L) as shown. Tighten nylock nut.



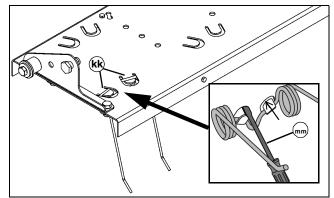
MX50249

4. Attach the right hand and left hand brackets to the tine spring shield (J) using two 3/8 x 3/4 in. bolts (V), 5/16 in. washers (hh), and 3/8 in. locknuts (cc) as shown. Tighten.



5. Attach the two skid gauges (E) to each side of the tine spring shield (J) using four 1/4 x 3/4 in. bolts (W) and 1/4 in. locknuts (ee) as shown. Tighten locknuts.

#### NOTE: Slight looseness of the spring tines under the bent tabs is normal.

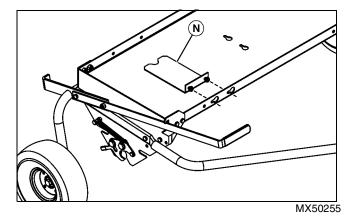


MX50251, MX50251a

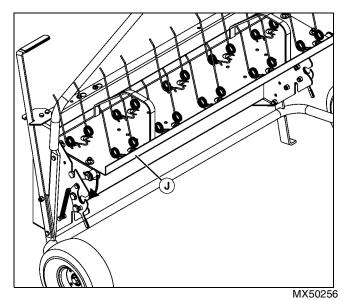
6. Starting with the front row of tabs (kk), slide a spring tine under a set of tabs. Insert a screw driver (mm) or punch down into the platform and bend each tab until the end of the tab is bent down even with the surface of the platform. Repeat to attach all spring tines.

# Installing

**Installing Thatcher** 

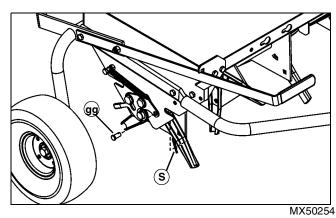


1. Attach center brace (N) to the top of the platform. Do not tighten yet.



2. With the platform standing on foot stands, slide the shoulder bolts on the thatcher shield (J) down into the retainer slots.

3. Rotate the thatcher until the bushings go into the axle retainers.



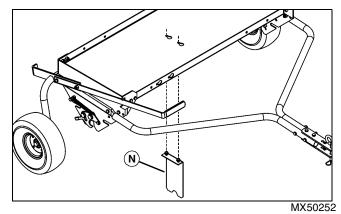
#### Picture Note: Aerator tool shown.

4. Secure each axle retainer to the platform assembly with a 3/8 x 3/4 in.

# Operating

clevis pin (gg) and 0.08 x 1.58 in. hair cotter pin (S).

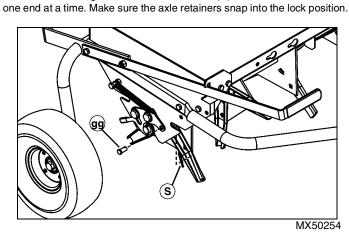
# **Installing Aerator**



1. Attach center brace (N) to the middle of the platform. Do not tighten yet.

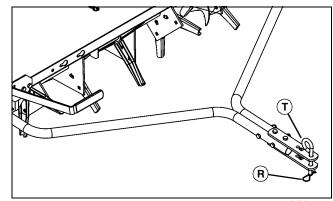
# MX50253

2. Slide the bushings on each end of the tool (D) into the axle retainers



3. Secure each axle retainer to the platform assembly with a 3/8 x 3/4 in. clevis pin (gg) and 0.08 x 1.58 in. hair cotter pin (S).

# Installing Unit on Tractor



MX50254

Remove hair cotter pin (R) and hitch pin (T) from attachment and install through tractor hitchplate.

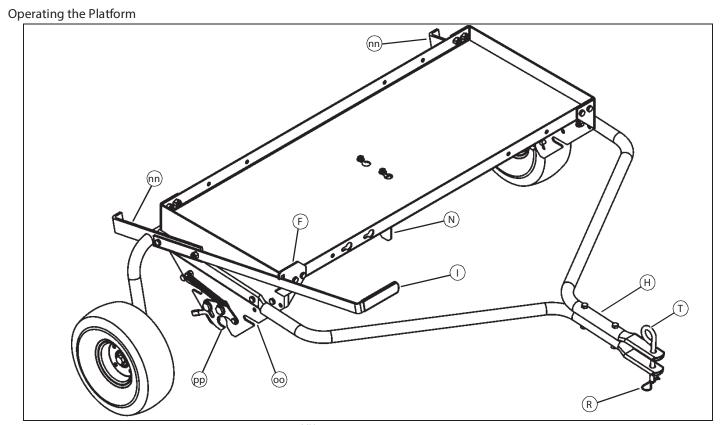
# Operating

# **Daily Operating Checklist**

- Check for loose or missing hardware.
- Make sure all connections are tight.
- Make sure attachment responds properly to controls.

Check for debris build-up that could obstruct proper motion of the spreader control components.

# Operating



Item	Use
Transport Handle Bar Catch (F)	Keeps Transport Handle Bar in transport position.
Hitch Tubes (H)	Connects Platform to the towing vehicle.
Transport Handle Bar (I)	Raises and lowers attached tools.
Center Brace (N)	R einforces tools that need further support.
Foot S tands (nn)	Allow Platform to be stored standing up.
R etainer S lot (oo)	Hold shoulder bolts of some tools.
Axle R etainers (pp)	Lock tool in place with help from clevis pins.
Hair Cotter Pin (R) and Hitch Pin (T)	Used to install attachment to tractor hitch plate.

# Operating the Thatcher

• Mow lawn and remove loose clippings prior to use.

• Start tractor engine with controls in neutral and place throttle at slow engine speed.

• Engage shift lever at lowest possible forward speed and lower thatcher, allowing spring tines to touch the ground. Increase speed until best thatching action is achieved.

• For best results, use a crisscross pattern on your lawn.

• Do not cross over walks or drives without first raising the thatcher to the transport position.

• On sloped lawns, always thatch in an up and down direction. Do not attempt to follow the contour of the ground.

- Vehicle braking and stability may be affected with the attachment of this equipment. Be aware of changing conditions on slopes. Refer to safety rules in the vehicle owners manual concerning safe operations on slopes. STAY OFF OF STEEP SLOPES.
- •Do not tow this equipment on a highway or other public thoroughfare.

## Operating the Aerator

- Mow lawn and remove loose clippings prior to use.
- Start tractor engine with controls in neutral and place throttle at slow engine speed.

• Engage shift lever at lowest possible forward speed and lower aerator, allowing plugger points to enter the ground. Increase speed as conditions permit.

- Aerate in the straightest line possible, making overlapping passes to increase the plugger point pattern.
- Do not attempt to aerate if ground is too wet.

• Avoid extremely sharp turns with plugger points engaged in ground to prevent damage to lawn.

• Do not cross over walks or drives without first raising the aerator to the transport position.

• On sloped lawns, always aerate in an up and down direction. Do not attempt to follow the contour of the ground.

• To increase depth of plugger point penetration, up to 100 lbs. of weight, such as bags of sand or concrete blocks may be added to the platform. Always secure weight to the platform with ties or straps fastened to the front and rear of the platform. Fasten so that the ties cannot become entangled in rotating parts.

• If ground is extremely hard and dry, it is recommended that it be sprinkled or watered down for one or two hours prior to aerating.

• Do not attempt to aerate if ground is too wet.

• Due to small rocks and gravel which are normally present in soil plugs, it is recommended that the plugs be raked; otherwise damage to the lawn mower blades may arise, especially when reel type mowers are used.

• Keep hands and feet away from under equipment as lowered from transport mode.

# **Removing and Storing**

# **Disconnecting Attachment**

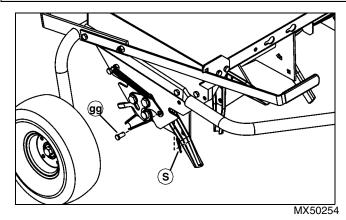
• Do not attempt to disconnect attachment from tractor with weight remaining on the platform.

• Attachment wheels should be in the down position (transport) when disconnecting attachment.

# **Removing Tools**

1. Park machine safely. (See Parking Safely in the Safety Section in the machine operator's manual.)

CAUTION: Avoid injury! Keep hands, feet and other body parts away from under drawbar.



#### Picture Note: Aerator attachment shown.

2. Remove the  $3/8 \times 3/4$  in. clevis pins (gg) and  $0.08 \times 1.58$  in. hair cotter pins (S) securing the axle retainers to the platform assembly.

3. Use the handles on the axle retainers to unlock the tool, then remove it from the platform.

# Storing

- Store in a dry area and coat exposed metal with light oil when not in use.
- Store in a clean, dry area.
- Store against a wall in a low traffic area.

# Service

#### **Lubrication Intervals**

Under normal operating conditions, lubricate spreader three-to-four times a year. Lubricate more often if frequently operated under adverse conditions.

# **Recommended Lubricants**

Use John Deere Multi-Purpose Lithium Grease

## Maintenance

- · Before each use, check all nuts and bolts for tightness.
- · Lubricate wheels and pivot points as needed.

• If rust appears on platform or one of the tools, sand lightly and apply a light coat of paint or oil.

• Spike points on plug or spike aerator can be periodically sharpened with a small grinder to maintain good soil penetration. Points should be removed for sharpening.

# Specifications

# Aerator/Dethatcher Specifications

#### Weight

Empty
Maximum Tray Weight
Maximum Towed Weight

#### Wheels and Tires:

Tire Size	4.10/3.50 - 4
Туре	Pneumatic

Tines	
Number	10 (Two Prong)
Diameter	

# **Getting Quality Service**

# John Deere Quality Continues with Quality Service

John Deere provides a process to handle your questions or problems, should they arise, to ensure that product quality continues with quality parts and service support.

Follow the steps below to get answers to any questions you may have about your product.

1. Refer to your attachment and machine operator manuals.

2. In North America or Canada, call John Deere Special Services at 1-800-448-9282 and provide product serial number (if available) and model number.